# A disagreement about livestock grazing in Enduimet Wildlife Management Area

Heterogeneous communities and the use of agency in community-based natural resource management projects

Lianne Dekker
Supervised by Esther Turnhout
Master Forest and Nature Conservation
Forest and Nature Conservation Policy Group
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# Abstract

Community-based natural resource management (CBNRM) aims to combine conservation with development. Although this sounds like a promising conservation strategy, it has often been critiqued, as in practice community participation often remains low and there is an unfair balance between conservation and development. Enduimet Wildlife Management Area (WMA) in northern Tanzania is an example of a CBNRM project which has formally achieved community participation. However, due to the current grass shortage in the area, a disagreement between the WMA management and the wider community has arisen as the WMA management wants to restrict grazing in order to reduce grazing pressure. This threatens the pastoralist livelihood of the Maasai living in the area. Using a theoretical framework of institutional bricolage and governmentality, it was found that this disagreement is likely to lead to implementation problems for the grazing regulations which may also affect wildlife conservation in the area and the WMA itself. This case study shows that formal community participation is not the full answer to the problems that CBNRM projects experience. Furthermore, it shows the importance of viewing communities in CBRNM projects as heterogeneous groups with diverse views and norms. Finally, it adds to the literature on governmentality by showing the importance of agency in this framework.

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# Contents

# List of figures

# List of abbreviations

| | |
|---|---|
| AA | Authorised Association |
| CBNRM | Community Based Conservation |
| CBO | Community Based Organisation |
| FGE | Focus group elders |
| FGM | Focus group Moran |
| FGW | Focus group women |
| KI | Key informant |
| MM | Management member |
| O | Observation |
| PO | Participant observation |
| RZMP | Resource Zone Management Plan |
| TL | Traditional leader |
| VGS | Village Game Scouts |
| VL | Village leader |
| WMA | Wildlife Management Area |

# 1. Introduction

Since the establishment of Yellowstone National Park in 1872, conservation has been practiced based on the belief that nature can only be kept pristine without people, leading to centralized nature policies and management known as fortress conservation (Dowie, 2009; Dressler et al., 2010). During the 1970s, social movements in conservation gained prominence; there was a call for more participatory engagement of local and indigenous communities and for using their knowledge. This should be combined with social justice, poverty reduction and biodiversity conservation. In this spirit, decentralized community-based natural resource management (CBNRM) projects were initiated and facilitated by outside actors and around the 1990s these sort of projects became institutionalised in the political-administrative framework (Dressler et al., 2010). CBNRM projects transfer authority over conservation from governments to communities who are thereupon allowed to make revenues from conservation. This shift from fortress conservation to CBNRM was based on three changed assumptions. First, instead of viewing local people as 'criminals' that destroy the environment, they are seen as people with a sophisticated understanding of the environment they live in. Second, conservation is no longer primarily seen as preservation: resources are seen as renewable rather than limited and therefore, local people should have the right to sustainably use these resources. Third, natural resources are part of the market economy in the sense that conservation can have a higher economic value than alternative land uses. This way, economic value protects the resource from disappearing and provides locals with an income (Hulme & Murphree, 1999).

Many CBNRM projects reflect these three rationales and are based on the idea that financial revenues should motivate locals to preserve nature (Fletcher, 2009) and should compensate them for the negative consequences of conservation (Hulme & Murphree, 1999). However, in practice, this worked out differently. Stronza (2007) questions whether more income necessarily equates more conservation, as the increased income can also be used to the destruction of nature. It may also happen that revenues are not distributed evenly in the community, thereby deepening social inequalities (Fletcher, Dressler & Büscher, 2015; Fletcher & Neves, 2012). Furthermore, it is very hard to put a fair price on nature which takes not only the resource itself but also the social and ecological context of the resource into account (McAfee, 1999). In this line, Krüger (2005) concludes that CBNRM should provide more than only an economic advantage over unsustainable land use; people also need to be involved in the project and should not feel valued less than conservation (Krüger, 2005; Songorwa, 1999). The combination of conservation and development can

lead to such friction as the focus is often more on biodiversity conservation. McAfee (1999) observes that communities are pressured to behave like the dominant stereotype of noble savages and are thus not free to use their lands in the way they see fit. This means that communities can be restricted in resource harvesting (Dressler et al., 2010). However, projects cannot be successful if people cannot harvest enough resources to sustain themselves (Adams & Hulme, 2001; Measham & Lumbasi, 2013). This can lead to unsustainable resource use if that creates more revenues which especially happens in cases where there is unequitable revenue sharing or where project funding dries up (Measham & Lumbasi, 2013; Ribot, Agrawal & Larson, 2006). Project funding is often provided by outside actors who initiated the project, therefore projects can be perceived as being imposed onto communities. Communities may also experience a lack of autonomy. Once a project is initiated, outside actors, like the state, may want too much control and do not give the community the voice in the project that was promised. Consequently, communities do not feel involved and may lack the motivation to work with the project, leading back to unsustainable resource use (Dressler et al., 2010; Measham & Lumbasi, 2013). It is argued that once a community has a feeling of ownership over the project, the project is likely to succeed as then the community is motivated to keep it running (Head, 2007; Measham & Lumbasi, 2013; Mountjoy, Seekamp, Davenport & Whiles, 2013). To achieve this, there has to be trust between locals and outside actors, they have to share the power and responsibility for the project and built a transparent management where all members have equal influence (Adams & Hulme, 2001; Berkes, 2004; Head, 2007). However, Head (2007) found that it is often hard for governments to decentralize. Even if this seems to happen, the decentralization may only be present on paper: locals do not have the input they should have (Ribot, Agrawal & Larson, 2006).

Many of the problems discussed above occurred because projects were implemented in an one-size-fits-all way without considering the local context (Dressler et al., 2010). Communities were seen as a resource to launch the conservation project on, not as valuable participants in the process (Igoe & Brockington, 1999). These studies highlight the need for real decentralization and community participation and for a fair trade-off between conservation and development goals which together could make projects more context-specific and more likely to succeed.

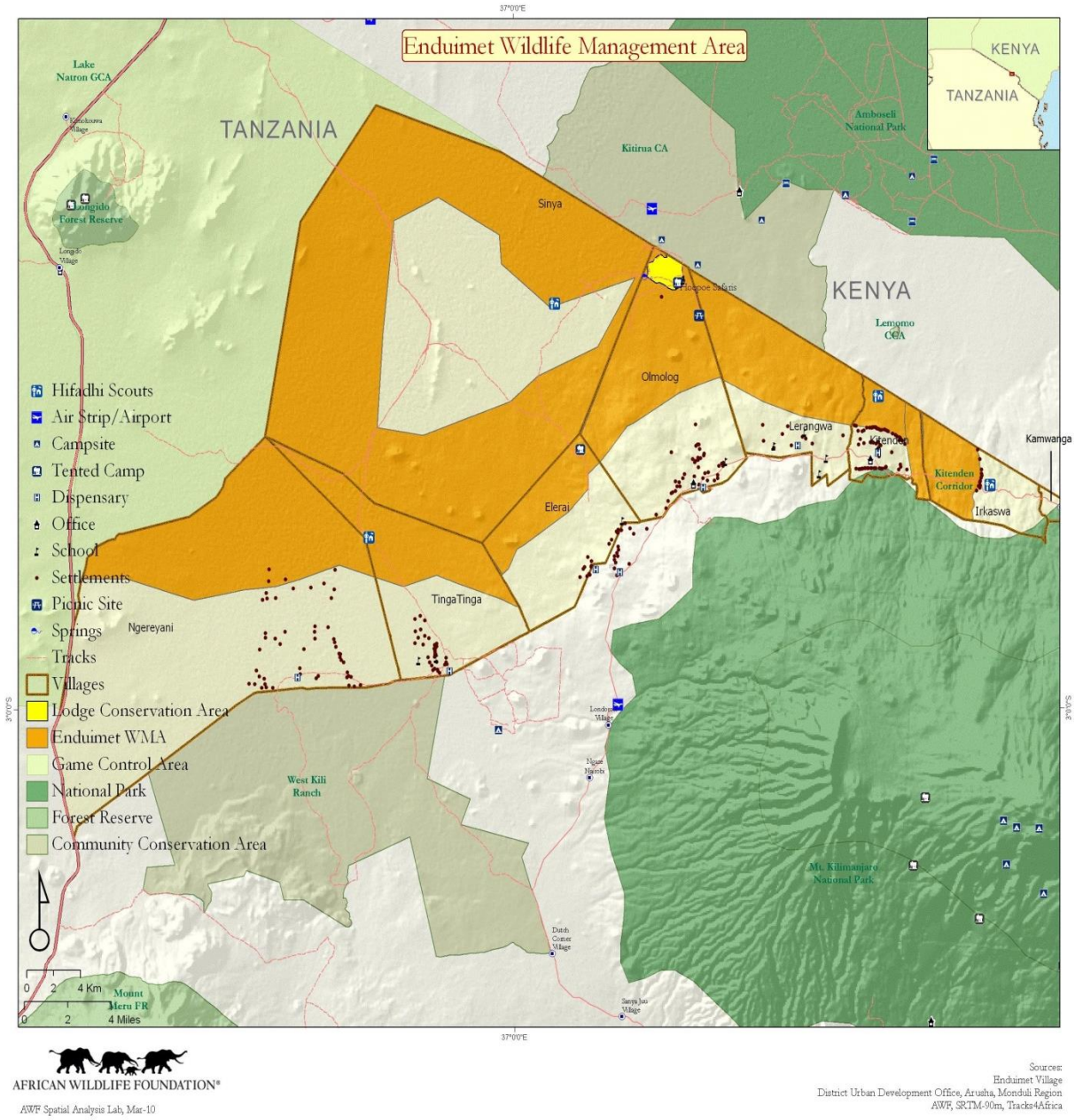


**Figure 1** Enduimet Wildlife Management Area is situated in northern Tanzania and consists of eleven villages, Sinya has recently been split into three new villages. The dark red lines indicate the village boundaries of the villages included in the WMA, the orange area is land dedicated to conservation which is under WMA jurisdiction.

## 1.1. Enduimet Wildlife Management Area

My research took place in Enduimet Wildlife Management Area (WMA), a CBNRM project situated in northern Tanzania (Figure 1). A WMA is a type of conservation area that was first introduced into Tanzanian law by the 1998 Wildlife Policy of Tanzania. This policy has been inspired by the CBNRM discourse and aims to bring conservation and development together

by conserving wildlife while at the same time alleviating poverty. By setting their village land aside in a WMA, local communities gain the rights to manage wildlife on their lands and to earn money from it through tourism (Wildlife Policy of Tanzania, 1998). A WMA is run by Community Based Organisation (CBO) which means that it is fully community managed. The organisation is headed by a chair who is part of the Authorised Association (AA). The AA consists of elected community members, three for each village. They are elected every three years by the village councils in which all adult community members can participate. The AA is supported by two boards: the board of trustees who has the authority to sign investment agreements and to make final decisions and who watches over the processes in the WMA; and the district natural resources advisory board who advises and provides technical assistance to the AA. The AA gives input to the management team of the WMA. The WMA management consists of four employed community members: the finance officer, the secretary, the administrative officer and the anti-poaching manager. These people are responsible for the day-to-day operations of the WMA. The anti-poaching manager also supervises the Village Game Scouts (VGS) who are in the field, looking after wildlife, hosting tourism organisations, dealing with human-wildlife conflicts and preventing poaching (Enduimet WMA, 2012a).

In Enduimet, the process to become a WMA started in 2003 and after a pilot period wildlife user rights were granted by the Ministry of National Resources and Tourism in 2007 (MM, 12/7; Sulle, Lekaita & Nelson, 2011). Enduimet WMA consists of eleven villages in the Longido district. These villages together cover an area of 128,200 ha. By becoming a WMA, they reserved 75,143 ha for conservation (Figure 1). This area is not under the jurisdiction of the village leaders, but is placed under the jurisdiction of the WMA. The WMA manages these lands according to the Resource Zone Management Plan (RZMP) in which they lay out their plans for the conservation area (MM, 12/7). The RZMP describes the way the land can be used and how the WMA management hopes to solve current challenges in the WMA. The WMA management is asked to renew the RZMP every five years. They draft the plans and are advised by scholars in ecology and by the AA members, who can receive input from the community. Before a new RZMP can be implemented, it has to be approved by the general meeting where all AA members, village officials and the WMA management are present. Furthermore, it has to be approved by three quarters of the villages during village councils in which three quarters of the people present have to express their support for the plan. After the community has approved the RZMP, the final decision is made by the Director of Wildlife who is the head of the Ministry for Natural Resources and Tourism (MM, 3/8; Longido District Council, 2011; Wildlife Policy of Tanzania, 1998). Thus, although the WMA is

a CBO, the government holds the ultimate responsibility.

Enduimet WMA is important for conservation in East Africa. It is part of the Amboseli ecosystem and it includes an important elephant migration route that connects the Amboseli with the Kilimanjaro ecosystem (Figure 1). Enduimet WMA serves as a buffer zone between national parks and inhabited lands for the large variety of wildlife that roams these lands. The wildlife includes elephants, buffalos, giraffes, lions, leopards, oryxes, lesser kudus, elands, gerenuks, klipspringers, hartebeests, bushbucks, wildebeests, hyenas and Thomson and Grants gazelles. These animals live in both migratory and habitual herds in the WMA (Enduimet WMA, 2012b). Apart from wildlife, the area is inhabited by Maasai whose primary livelihood is pastoralism complemented by agriculture in non-arid areas. Especially in areas where agriculture is practiced, also other ethnic groups are present: the WaArusha, WaChagga, WaParre and WaMeru (Longido District Council, 2011).

## 1.2. The Maasai

The Maasai are a tribe living in southern Kenya and northern Tanzania on arid and semi-arid lands. As these lands have low and unpredictable rainfall, pastoralism is the preferred livelihood and has been practiced there for millennia. However, in more fertile regions, also agriculture is practiced by the Maasai to complement pastoralism (Homewood, Kristjanson & Trench, 2009). The Maasai live in bomas which are groups of houses often fenced off by thorny bushes. A boma is home to one family, a husband and his wives and possibly his sons and their wives. All wives have their own house. Furthermore, the livestock is kept in the *boma* in enclosures made of thorny bushes to keep them save from predators (KI, 5/8).

Historically, Maasai have practiced a mixed livelihood of agriculture, pastoralism and hunting and gathering, but at the end of the 18$^{th}$ century, pastoralism became their main livelihood with livestock as their main resource. However, with the highly variable climatic conditions, pasture was not always ensured and also predators and diseases could easily reduce the number of livestock. By way of social insurance, the Maasai developed a social institution: the age-set system. Instead of focussing just on family relations, all Maasai men are part of an age-set that they feel closely connected with. Every fifteen years, a new age-set is formed consisting of boys who are considered old enough (Spear & Waller, 1993), often around the age of fourteen or fifteen (Personal observation). These boys are circumcised and then become *Moran*, the warriors of the Maasai, a privileged and admired position. They play an important role in protecting livestock from wildlife and historically also participated in cattle raids. The *Moran* become a close-knit group that is loyal to each other. From among themselves, they choose a leader for their age-set (Spencer, 2004). The

current *Moran* age-set is called *Nyangulo*, the preceding age-sets which are still alive are, from young to old, *Korianga*, *Landiis*, *Maakah*, *Seuri* and *Meshuki* (KI, 16/7). The *Moran* are considered adults; by becoming *Moran*, they gain political influence and they can marry. However, the age-set of their fathers, which in the case of the *Nyangulo* is the *Landiis*, is expected to guide them. Furthermore, all older age-sets, the elders, have more political influence than the *Moran*; political influence grows with age (Spear & Waller, 1993). The *Moran* are not expected to marry immediately after becoming *Moran*. The Maasai have a system of polygamy where a man has multiple wives. To correct for the shortage of wives, men marry late and girls marry early. This means that men marry the daughters of younger age-sets which creates bonds between the age-sets. The creation of these bonds is important as there is often rivalry between the age-sets: the age-set preceding the *Moran* age-set tends to resent the *Moran* for taking over their privileged position as *Moran* and the different elder age-sets struggle for political dominance (Spencer, 2004). The bonds between age-sets are important for Maasai society, but also for their livelihood. Their pastoral lifestyle is based on the sharing of resources and especially the grazing land (Hodgson, 1999).

## 1.3. Savannas and pastoralism

The effect of pastoralists on dryland ecosystems such as the ecosystem of Enduimet WMA has been a contested topic; do pastoralists degrade the ecosystem or not? Although pastoralism was never a big issue for the WMA, this changed recently because currently, the WMA experiences a grass shortage which affects both wildlife and people.

Ecosystems are often understood as equilibrium-based systems which degrade if this equilibrium is disturbed. The degradation is explained by succession theory which says that plant species in e.g. a forest will replace each other until the climax is reached. When the equilibrium of an ecosystem is disturbed, it will go back to a lower successional stage (Hulme & Murphree, 1999; McCabe, 2004). In dryland ecosystems, pastoralists are often associated with these disturbances. The assumption is that their amount of livestock exceeds the carrying capacity of the land, leading to degradation. In a natural system without humans, nature would keep itself in balance, wildlife would not be able to overgraze the land but move away instead. However, humans are likely to overgraze by putting more livestock in a pasture than its carrying capacity (Galaty, 2015; McCabe, 2004; Scoones & Graham, 1994). This idea was reinforced by Hardin's theory of the tragedy of the commons. Hardin (1968) says that in a common pasture, it is in the interest of each individual cattle-owner to put as many cattle as he can in the pasture, as more cattle means more income.

This leads to overgrazing of the pasture. However, the additional income from each extra head of cattle is for the individual, whereas the costs of the degradation of the pasture are for all cattle-owners. In the case of dryland ecosystems, overgrazing is likely to lead to soil erosion as much of the vegetation cover is removed (Morgan, 2009). Vegetation acts as a protective layer between the atmosphere and soil. Plants shield the soil from wind and water which have the capacity to erode the soil. If soil erosion takes place, much nutritious soil is lost, making it harder for plants to regrow (Morgan, 2009).

This information leads to the conclusion that the amount of livestock on the African savannas needs to be regulated carefully. According to the colonial settlers however, African pastoralists did not do this (McCabe, 2004). Pastoralists were thought to have a 'cattle complex', an irrational attachment to their cattle which leads them to own as much cattle as possible, regardless of the cattle's health (Herskovits, 1926). The Kenyan Maasai were also implied in this narrative. The British colonisers were convinced that they caused soil erosion by their irrational way of livestock keeping. The Maasai, however, held a different view. They did not see the amount of cattle as the problem, but the restrictions in movement that were imposed on them because of colonial land use. This view was never accepted by their colonisers (Mwangi & Ostrom, 2009) and the colonial view has stayed in the minds of many Tanzanians as the post-colonial Tanzanian government took over much of the policies of their British colonisers surrounding nature and wildlife (Nelson, Gardner, Igoe & Williams, 2009). Thus, many policies on rangelands still follow this view (Galaty, 2015; McCabe, 2004; Zimmerer, 2000).

However, there is an alternative view that came up around the 1990s and is now accepted by many scholars (McCabe, 2004). Instead of equilibrium-based systems, savannas are seen as non-equilibrium, variable systems in which vegetation is affected by environmental conditions such as climatic variations, fire and grazing (Hulme & Murphree, 1999; Linstädter, 2009). Studies found that grazing pressure on savannas did not have a large effect on pasture quality. Savannas have evolved under low rainfall and therefore the vegetation recovers easily with rainfall. This means that the pastoral system of increasing the amount of livestock during good years to make full use of good pasture is not degrading the land (Galaty, 2015); the livestock dies again during droughts, keeping the livestock numbers low enough to prevent long-term negative effects (Scoones & Graham, 1994). Furthermore, the continuous movement of the pastoralists to follow the good pastures leaves time for the plants to recover in previous pasture (Galaty, 2015). Following this line, Linstädter (2009) concludes that when there are grass reserves to cope with the variability of the landscape in times of drought, grazing can be done sustainably. According to Morgan

(2009), many traditional grazing systems operate like this and are well adapted to the variable climatic conditions by rotating the place of grazing during the year. However, Morgan (2009) warns that when traditional grazing systems come under pressure due to privatisation of grazing land, eroding authority of the elders and other factors that restrict the traditional rotation, erosion can take place.

## 1.4. Research objective

People and wildlife have co-inhabited Enduimet WMA relatively peacefully since its start and the WMA has been doing relatively well by becoming fully community managed. However, the current grass shortage presents a challenge for the WMA. Both the Maasai living in the WMA and the WMA management are worried and want to take action to solve it. The WMA management has proposed a set of grazing regulations which should solve the grass shortage according to them. However, these regulations are informed by the ecological view of savannas as equilibrium systems and impose restrictions on the access to the conservation area in terms of the number of livestock, the times of access and the people who can access. The regulations are not welcomed by the wider community. Many community members believe that the grass shortage is due to a lack of rain and is not connected to grazing pressure. They fear that if they reduce their amount of livestock to relieve the grazing pressure, this will be ineffective and they will not be able to make a livelihood anymore. Not only the understanding of the grass shortage and the livelihood interests of the community are at odds with the grazing regulations, the regulations also do not fit Maasai culture; by restricting the time of access, they oppose the Maasai's traditional grazing practices of rotating the grazing lands according to the amount of rainfall during the year. Thus, there is a disagreement between the community and the WMA management. As the Maasai have a tradition of pastoralism that is engrained in their culture and society, they are unlikely to agree to the implementation of the grazing regulations but will want to keep their traditional system. Contrary to many other CBNRM projects, the people living in the WMA received a voice in the WMA management and are consequently able to influence the grazing regulations formally, but also informally through their way of handling the newly introduced regulations. Therefore, it is uncertain how the community will respond to the implementation of the grazing regulations and what the implications of this will be.

The objective of this research is to examine the disagreement between the community and the WMA management in order to understand the implications of the grazing regulations for the grazing practices in Enduimet WMA and for the WMA itself. Examining this disagreement can add to the literature on CBNRM projects by looking at a

project that is community managed but still seems to lack the context-specific management that is associated with this. The literature shows that land use is often restricted by outside actors whereas in Enduimet WMA, the WMA management consisting of community members proposes to restrict land use, an unexpected action according to the current literature which can be explained by taking a closer look at community dynamics. This research shows the benefit of looking at communities in CBNRM projects as heterogeneous groups instead of the homogeneous groups that are often assumed. Furthermore, this research shows how a community can resist new policies and how this can be accompanied by broader policy changes in a CBNRM project. Lastly, it contributes to our understanding of the role that the agency of community members plays in resisting and changing these policies that disadvantage them.

# 2. Theoretical framework

To understand the disagreement and the perspectives within the community on grazing, savannas and the grazing regulations, it is important to discuss the concept of community. The community is central in CBNRM projects and plays an important role in Enduimet WMA. However, community is not a straightforward concept. The traditional concept of community as a place-based, ethnically and culturally homogeneous group is problematic because it ignores the different livelihood strategies and landscapes present in the WMA as well as the dynamics within the community (Agrawal & Gibson, 1999; Ojha, et al., 2016). Therefore, Ojha et al. (2016) argue that a community can be better defined as a group with shared goals, norms and ideas which is not necessarily in the same geographical location. This is what they call a delocalized community: a multi-stranded network of social relations. This concept fits better in the context of Enduimet WMA as people have different opinions on grazing practices, the cause of the grass shortage and the WMA in general. However, to also understand the dynamics between these different delocalized communities, one has to look at how the norms of these delocalized communities interact and change over time (Agrawal & Gibson 1999). Therefore, it is important to consider the institutional dynamics within Enduimet WMA. As will be discussed in more detail below, these dynamics involve the shaping and reshaping of the institutions.

## 2.1. Institutional bricolage

The grazing institutions in Enduimet WMA could be analysed using Ostrom's (1990) work on institutions for governing the commons. She argues that if a community designs the right institutions around natural resource use, the resource can be managed sustainably by the community. However, Ostrom (1990) only looks at the effectiveness of institutions, they are either weak or robust and a weak institution can be made robust by unilinearly and consciously redesigning the institution (Cleaver, 2002). Ostrom (1990) expects that implemented institutions are followed the way they are intended. This is in line with most theories within institutionalism which all take a more or less structuralist approach that considers institutions as guiding behaviour without explicitly recognising the role of human agency (Cleaver, 2002; Schmidt, 2005). Thus, these theories do not adequately account for institutional dynamics and do not explain how human creativity shapes institutions (Cleaver & De Koning, 2015). However, as argued above, the institutional dynamics are an important unit of analysis when looking at a heterogeneous community and CBNRM projects. Therefore, this research draws on the concept of institutional bricolage.

Institutional bricolage looks at the process of linking and changing the institutions at hand by the people in society to reach commonly accepted institutions: institutional dynamics. Components of existing institutions can be used and put together with components of other institutions, resulting in new institutions that are specific for the time and space for which they are meant (De Koning, 2014). Often a distinction is made between introduced and locally embedded institutions. The introduced institutions come from external actors and have a formal nature, while the locally embedded institutions have a more informal nature (De Koning, 2014). In the context of Enduimet WMA, this distinction does not completely fit. The WMA management will introduce new grazing institutions, but these people are community members, not outside actors. However, their fellow community members are still expected to re-shape these institutions to bring these more in agreement with their locally embedded institutions. Therefore, this research will distinguish between the formal institutions of the WMA management and the locally embedded institutions of the pastoralists as expressed by their grazing practices.

The formal institutions are introduced into an already existing framework of local institutions that is intertwined with culture (De Koning & Benneker, 2013). When these formal institutions fail to acknowledge the already existing embedded institutions, locals may see them as illegitimate (Cleaver, 2002). Only institutions that are perceived to fit the context, are seen as legitimate (Cleaver & De Koning, 2015). Institutional bricolage assumes that institutions are not static but change due to external and internal pressures (De Koning & Benneker, 2013). Formal and locally embedded institutions will be re-shaped, recombined and reinterpreted which results in a framework of institutions that fit the context (De Koning & Benneker, 2013). To explain how this is done, De Koning (2014) defines three bricolage practices: aggregation, alteration and articulation. Aggregation happens when people combine the introduced and locally embedded institutions; they adhere partly to the formal institutions but mix them with their own institutions. Alteration happens when people adapt and reinterpret formal and locally embedded institutions to fit the context. This means that formal institutions may work out in practice quite differently than was intended. Articulation happens when people claim the locally embedded institutions and reject the introduced institutions (De Koning, 2014).

These practices all assume the agency of the local actors to shape the introduced institutions. In the case of Enduimet WMA, the local pastoralists are likely to bricolage the grazing regulations of the WMA management. They could informally change the institution by not complying to the grazing regulations, see how far they can stretch their meaning or find out which parts of the regulations are useful to them. Although this way of changing

institutions may sound active and according to a predesigned plan, this is often not the case. The re-shaping of the institution is likely to happen mostly unconsciously. The agency of the bricoleurs is situated in a network of social relations and their culture. Thus, their agency is not free, but constrained by their norms, beliefs, social relationships and their environment according to which they will shape the institutions (Cleaver & De Koning, 2015; De Koning & Benneker, 2013). This way, institutional bricolage does not completely move away from structuralism, people have agency but this agency is partly governed by existing structures. Institutions are formed by the creativity of the bricoleurs, but also by the constraints of their context (Cleaver & De Koning, 2015).

## 2.2. Governmentality

While institutional bricolage can be used to analyse the institutional dynamics, it cannot explain the interplay between institutions, individual perspectives and bricolage practices. Foucault's concepts of governmentality and biopower are more suited for this. Biopower is a form of power that legitimates its authority by claiming that its governance will improve life for its subjects. This is in contrast to sovereign power as used by monarchs which only seeks to control life. Governmentality is a way to exercise biopower (Foucault, 2003). Importantly, it is a concept of governance that assumes the agency of its subjects. All people have a certain subject position that is created through the context that they live in, including the interplay between formal and locally embedded institutions. Governmentality refers to the way in which subject positions are shaped and the extent to which people behave as the governing body envisions. According to governmentality, people feel that they act voluntarily and according to their own interests, but this is also in the interest of the whole population (Li, 2007).

Foucault describes four ways of governmentality through which subject positions can be created, these have been summarised by Fletcher (2010): disciplinary, neoliberal, sovereign and truth governmentality. Disciplinary governmentality is the best known form of governmentality. It works through the internalisation of social norms and ethical standards prescribed by the governing body. People subject to this form of governmentality are afraid to deviate from the norm and thus push themselves and others to act according to those norms. People who have not internalised the desired norms will exhibit undesired behaviour (Fletcher, 2010). The internalisation of such norms, or informal institutions, can be achieved through e.g. the examination of those institutions (Foucault, 1991; Li, 2007) or through education (Bluwstein, 2017). Neoliberal governmentality does not refer to the internalisation of values but, rather expects that people will always act in their self-interest. Thus,

neoliberal governmentality operates through the creation of external incentives such that people will exhibit certain behaviour out of self-interest (Fletcher, 2010). These incentives are often economic, e.g. by compensating people for human-wildlife conflicts if they agree to conserve wildlife in turn (Bluwstein, 2017). If people nonetheless exhibit undesired behaviour, this means that the incentives where not set correctly by the governing body (Fletcher, 2010). Sovereign governmentality uses codified rules, or formal institutions, to shape behaviour. The threat of punishment should lead subjects to act according to the governing body's vision. Deviant behaviour can be reshaped by introducing and enforcing new rules (Fletcher, 2010). These three forms of governmentality were found in this research and stand in contrast to the last form, truth governmentality, which is less about arranging things (incentives or formal or informal institutions) and more about using what is already there. This type of governmentality uses authority, for example of religious texts or other powerful universal ideas to prescribe appropriate behaviour (Bluwstein, 2017; Fletcher, 2010). Apart from religion, this notion also applies for example to traditional ecological knowledge which emphasises the connection of indigenous people with nature and which can be used to empower indigenous people (Bluwstein, 2017). One governing body may use several of these governmentalities in concert to achieve its vision and this has also been seen to happen in many CBNRM projects (Bluwstein, 2017; Fletcher, 2010).

By presupposing the agency of its subjects, governmentality does not need to curb people's freedom as a sovereign regime does. Instead it implicitly guides agency. Governmentality can thus be seen as a subtle way of achieving one's goals, by creating subject positions: identities shaped by the governing body (Cepek, 2011; Foucault, 1975; Inda, 2005). These identities include people's capacities, values and desires that are used to achieve the governing body's vision. When such subject positions have been created, the structures of the governing body will come together with the agency of the people. However, because of their agency, people always have the capacity to act differently from the governing body's intention. People may not (fully) become subject to the governmentalities employed by the governing body. In such a case, they may either not comply with the governing body's vision or express alienated labour (the concept as developed by Marx); they comply but their behaviour does not express their identity. In such a case they will stay critical and will keep questioning whether what they are doing works (Cepek, 2011). Thus, due to the agency of people, utopic visions of improvement, as articulated in many CBNRM projects, will never be reached fully (Li, 2007). Furthermore, the question arises who defines what improvement is. As there will be differences in the objectives of the actors, the governing body will not be able to support the objectives of just one group (Li, 2007).

With this theoretical framework of institutional bricolage and governmentality, the research objective can be translated to the following research question:

How does the interaction between the subject positions of the WMA management and the community about the formal grazing institutions affect the grazing practices and conservation in Enduimet WMA?

To answer this question, three sub-questions will be answered:

1. How do the formal grazing institutions fit with the locally embedded institutions of the community?
2. What kinds of situated agency can be identified among the community?
3. What subject positions are imagined by the grazing regulations and to what extent will they be realized?

In the next chapters, first the methodology is discussed, specifying how the data were collected and what choices regarding data collection were made as well as how the data were analysed and what the limitations of this methodology are. This is followed by the results discussing the perspectives of both the WMA management and the community. Lastly, an analysis of these results is given according to the theoretical framework presented above in which the research questions will be answered and the implications of these results for the literature are discussed.

# 3. Methodology

The results of this study were obtained during a three month stay in Enduimet WMA in northern Tanzania, from July 6 2017 until October 4 2017. The study time was divided into two phases: the exploratory phase and the in-depth phase. The exploratory phase was from July 9 until August 21 and the in-depth phase was from August 22 until October 2.

## 3.1. Exploratory phase

I used the exploratory phase to gain an overview of the different villages in Enduimet WMA and their similarities and differences to be able to make informed decisions for my work in the in-depth phase. During the exploratory phase, I worked together with two bachelor students from University College Utrecht, Anna van der Vliet and Moritz Menzel, who did a six-week internship at the WMA. They had a similar research topic: to understand the opinions in the community about the proposed grazing regulations. I provided them with advise for, and helped them with their data collection and subsequently also used their data for my own study.

### *3.1.1. Choice of villages*

During the exploratory phase, seven of the eleven villages in Enduimet WMA were visited: Olmolog, Elerai, Tingatinga, Ngereyani and the three villages in Sinya. The villages were chosen after consulting with the WMA management. As most of the inhabitants of these villages are Maasai, they have livelihoods mostly based on livestock keeping. Therefore, they will be most affected if the grazing regulations that the WMA management proposes will come into practice. The inhabitants of the remaining four villages, Kamwanga, Irkaswa, Kitendeni and Lerangwa are of mixed ethnicity, there are Maasai, WaArusha, WaMeru, WaPare and WaChagga, or as the Maasai call these other ethnic groups: Swahili people. This is especially the case for the first three of these villages. Lerangwa is still quite dominated by Maasai, especially in the area bordering Olmolog. As these villages are of mixed ethnicity, the inhabitants base their livelihoods more on agriculture and to a lesser extent on livestock keeping. Another reason not to visit these villages is that the conservation area in the villages is quite small, Kamwanga does not contribute any land to the conservation area and Kitendeni and Irkaswa contribute a small, but important, strip: the Olkunonoi-Kitendeni wildlife corridor. This corridor already has grazing regulations and these are not expected to change in the new plans. Only Lerangwa contributes a large part of land to the conservation area. Lerangwa thus stands apart from the other three unstudied villages and is also still

somewhat included in the analysis as a key informant lives there.

### *3.1.2. Methodology*

I used multiple methods during the exploratory phase. Firstly, I had six semi-structured interviews with community leaders in the villages. I tried to interview the government leaders of each village. However, I did not get a chance to speak to the leader of Tingatinga as he had had a motorcycle accident when we visited Tingatinga. Furthermore, in Sinya I spoke to six leaders at the same time. Sinya has been recently split into three new villages and the executive officers of all three villages were willing to speak to me together. While we were talking, also the chairmen of two of the villages walked in, together with the traditional leader of the *Landiis*. The Maasai have one traditional leader per age-set for all of Enduimet. For the remainder of this research, I focussed on the leaders of the *Nyangulo* age-set as this is the age-set of the *Moran*, who are most involved in grazing. Contrary to Maasai tradition, the *Nyangulo* age-set has been split into three different sections, all with their own traditional leader. I spoke to all three of them. I decided to interview these leaders as they play an important role in the Maasai community. Therefore, they have great insight into the community and are able to represent the whole community. The interviews always followed the same general structure. Firstly, we discussed their role in the community and in enforcing the grazing institutions. Next, we spoke about the grass shortage and discussed the causes, effects and solutions to this. I also introduced the solutions proposed by the WMA management and asked their views on these ideas, whether they felt it would improve the situation and how they felt the community would react to them. In later interviews, I also asked about views that were mentioned in previous interviews to see if people agreed with each other.

Secondly, I did five focus groups with *Moran*, one focus group per village. I chose to do focus groups with them as *Moran* are often still grazing themselves and they are involved in enforcing the grazing institutions. Furthermore, it is hard to get their opinion in focus groups of mixed age-sets as the Maasai have the custom to let the elders speak. I tried to include five people in each focus group, however, due to circumstances, sometimes I was only able to speak to four. I chose to include five people as it is enough to spark a discussion without making it chaotic. The participants of all focus groups in this study are a convenience sample. At the start of each focus group, I asked the *Moran* to draw me a map of their village, including *bomas*, farmlands, the different sorts of grazing lands and the border of the conservation area. I used this to get a sense of their grazing institutions and their knowledge of the WMA area. An example of such a map can be seen in figure 2. Using

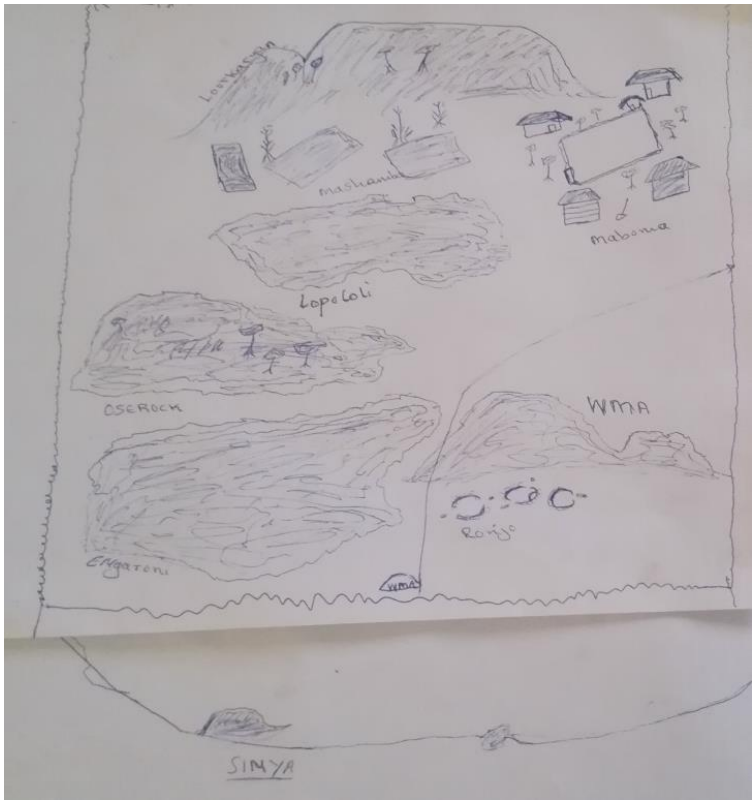


**Figure 2** Example of a map drawn by *Moran* participating in my focus group in Elerai on 21/7.

the map, I asked them questions about the seasonality of the grazing lands. Next we discussed the grass shortage and I introduced the solutions of the WMA management. I asked whether they liked these solutions and if not, how they would react to them if they came into place. As in the interviews, also in the focus groups I sometimes asked opinions on views that I had heard in previous focus groups.

Thirdly, Anna and Moritz did four focus groups with Maasai elders. They had planned to do one focus group per village, but unluckily, their focus group in Ngereyani did not work out. They chose to focus on the elders as they have a lifetime of experience in grazing and are still involved in enforcing the regulations. Furthermore, they can tell about differences between the current situation and the past. Anna and Moritz tried to include five people of different age-sets in each focus group, but also they were not always able to find five people. For their focus groups, they used a participatory tool called a problem tree. They drew a tree on a piece of paper which represented the problem. Using this tree, they talked about the causes of the problem at the roots of the tree and then moved on to the effects of and possible solutions to the problem at the branches of the tree. They started each focus group with confirming that the grass shortage was indeed a problem according to their participants and then used this as the topic of their problem tree. In every focus group they

also discussed the solutions proposed by the WMA management. In Elerai, they used a timeline as their participatory tool to understand better how the situation had changed from the past until now. However, they found out that this did not fully suit their purpose so they did not use it again. Also in this focus group, they still asked about the causes, effects and solutions to the grass shortage.

Fourthly, I had two semi-structured interviews with two members of the WMA management. Furthermore, I had several informal conversations with one of these members. I chose to have interviews with him as he is most involved in designing the grazing regulations and is also most dedicated to his work at the WMA. During the interview, I asked what the new grazing regulations would entail and what the reasons for changing the grazing regulations are. Furthermore, we spoke about the effects of the grazing regulations on Maasai culture and how he thought that the Maasai would react to them. I also had informal conversations with him during which I tried to clarify things from our formal interview and tried to understand his ideas better and where his ideas came from.

Fifthly, I had many informal conversations with my Maasai friends in the area: my translator Sarah, Anna and Moritz's translator Paul, my former translator Oshumu and Sarah's cousin Dani. They were mostly helpful in making me understand Maasai life better, but they also provided their own opinion on the grass shortage and the proposed solutions of the WMA management. I also had an informal conversation with a VGS about his perception of the grazing regulations. Lastly, I had informal conversations with Corey Wright, a PhD researcher who has visited the area frequently for the past seven years and who is also Anna and Moritz's supervisor. He helped me to understand Maasai life better as well as the WMA and he gave some interesting pointers for my research. Apart from speaking to people, I also frequently participated in Maasai ceremonies.

## 3.2. In-depth phase

During the exploratory phase, I gained a clear view of the grazing institutions proposed by the WMA management and a general idea about the grazing institutions of the Maasai and their ideas about the causes, effects and solutions of the shortage of grass. To understand Maasai livelihood and the role that grazing plays in their livelihood better, I decided to live in two different Maasai *bomas*, each for three weeks. Furthermore, I decided to do additional focus groups in order to also include women in my research, to understand how the Maasai view the ecology of the land and to understand better how the Maasai would react to the grazing regulations of the WMA management. I did these focus groups during my stays in

the *bomas*.

### *3.2.1. Choice of bomas*

I stayed in a *boma* in Ngereyani and in a *boma* in Olmolog. During the exploratory phase, I noticed that there is a difference in opinions and grazing practices between the highlands and the lowlands. Furthermore, the environments are very different: the lowlands are hotter and drier and more wildlife-rich whereas the highlands are colder and greener and have less wildlife. To include both perspectives in my research, I chose to go to Olmolog in the highlands and to Ngereyani in the lowlands. Apart from this criterion, I chose the villages because of convenience. My translator's family lives in Ngereyani which provided me with an easy opportunity. The WMA management is based in Olmolog and therefore the WMA management could help me to find a family to stay with from their acquaintances.

### *3.2.2. Participant observation*

During my stays in the *bomas*, I tried to participate as much as possible in all activities that the people were doing. This meant that I went to the market and church with them, took water, helped to build and break down houses, participated in ceremonies and in slaughter as well as sat down and listened to their conversations. Most importantly, I went grazing for five days in each *boma* with different groups of livestock. While grazing, I asked the person or people I was grazing with questions about the livestock, why we went grazing in this specific place and whether they also went to different places. Furthermore, I paid attention to the environment, interactions with wildlife and the general course of the day.

### *3.2.3. Focus groups*

I reserved some days to do focus groups. In Ngereyani, I did five focus groups and in Olmolog I did four focus groups. I did the same focus groups in both villages, however, in Ngereyani I also did a focus group with men using a problem tree as Anna and Moritz had intended to do this, but had not had time. All focus groups that I did included four to six people from different age-sets and were convenience samples. Firstly, I used the format of the problem tree in a focus group with women as they may have different perspectives on the causes, effects and solutions to the grass shortage than men. An example of the outcome of such a focus group can be seen in figure 3.

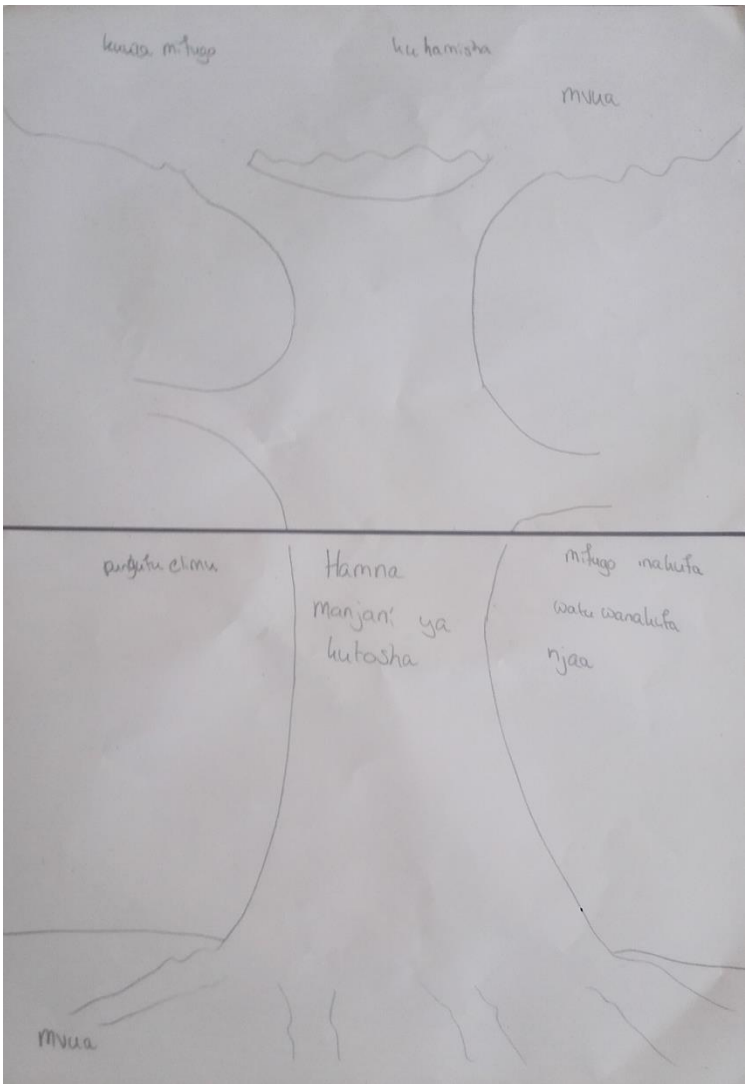


**Figure 3** Example of a problem tree drawn during a focus group with men in Ngereyani on 25/8.

Secondly, I did a focus group with men to learn about their understanding of the ecology of the land. I did this focus group only with men as they are more involved in grazing than women and are therefore also more knowledgeable of the ecosystem. For this focus group, I used an adaptation of the participatory tool Venn diagram. I provided the men with paper circles and asked them to name the different actors in nature such as rain, trees, wildlife and livestock which I wrote on the circles. Then I asked them to show me how the different actors interact by connecting the circles of those actors and in this way they could show me the ecosystem. An example of the outcome of this exercise is shown in figure 4. Lastly, I asked them three questions. Firstly, how did they learn this knowledge. Secondly, based on this knowledge, where do they decide to graze and lastly, when looking at this diagram, what are the causes to the grass shortage.


**Figure 4** Example of the outcome of a Venn diagram ecology focus group with men in Olmolog on 18/9.

Thirdly, I did a focus group to survey the knowledge of the community about the WMA and how much authority they attribute to the WMA. I did this focus group twice in each village, once with men and once with women as both are allowed to be involved in the WMA. For this focus group I used an authority matrix as participatory tool. On the top, I wrote different people with authority: traditional leader(s), government leader(s), elders, the head of the *boma*, the WMA and others. On the left, I wrote things to do with the natural resources of the Maasai: the amount of livestock, the opening time of the *ngaroni*, wildlife, people allowed in the *oserok*, people allowed in the *ngaroni*, people allowed in the *olopololi*, access to water and access to firewood. About each item on the left, I asked who decides about this according to the participants in my focus group. An example of the outcome of this exercise can be seen in figure 5. After filling in the matrix, I explained them the difference between land under WMA and under village jurisdiction by showing the map in figure 1 and asked them if they had known about this difference before. Next, I asked which policies of the WMA they know and whether they agree with these policies. The conversation would then move towards their knowledge about the AA and how they like these members. Lastly, I told them that in the conservation area, the WMA has authority over the amounts of livestock grazing there and over the time that grazing is allowed and that to solve the grass shortage, the WMA management proposes three solutions. I discussed these solutions with them and asked them how they would react to them, especially if they did not feel that the WMA could have authority over grassland.

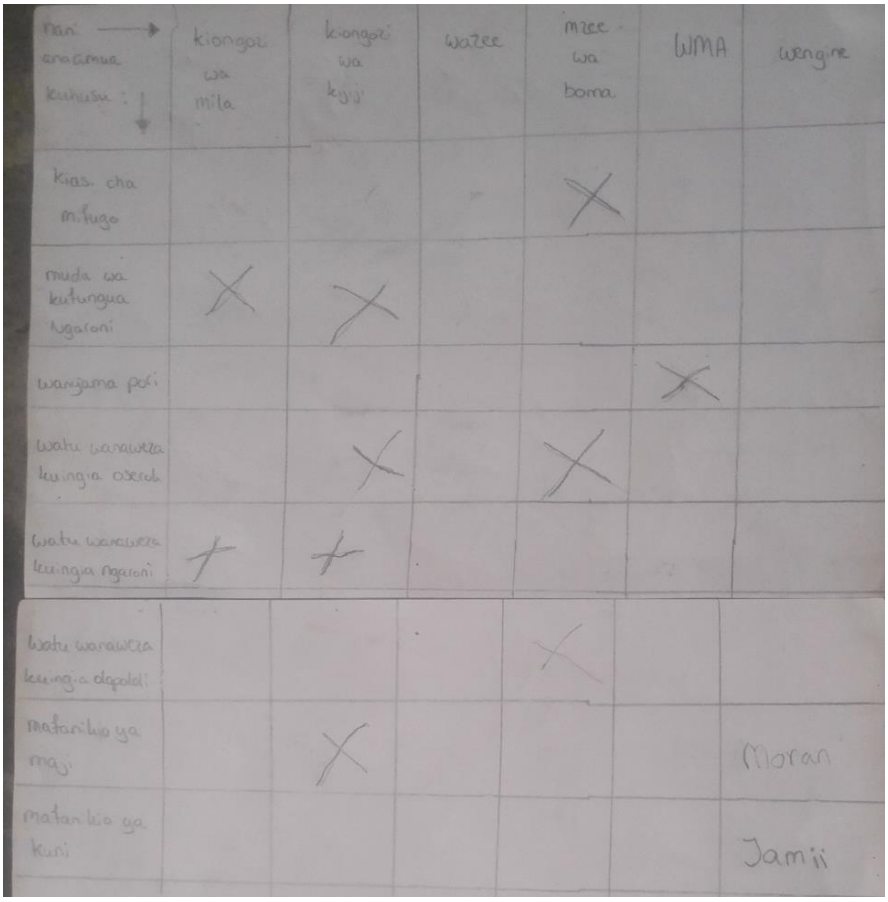


**Figure 5** Example of the outcome of an authority matrix of a focus group with women in Olmolog on 25/9.

## 3.3. Data collection and analysis

After each focus group or interview, I wrote a transcription. These transcriptions are general stories of what has been said and of the views of the informants. It was not possible to make word to word transcriptions as the interviews were not recorded. I chose not to record the interviews as electronic devices often spark a lot of interest with the Maasai, meaning that they want to look at it, hold it and talk about it rather than about the topic of the focus group. Furthermore, as there is often little electricity, it is hard to keep recording devices charged. Lastly, word to word transcriptions would have meant transcriptions of what my translator was saying which are not direct translations of what the participants were saying, but rather a summary of it. Therefore, there is also little value in word to word transcriptions. Still, there are quotes in the results chapter. These are either quotes of my translator or directly from the informant if the informant was speaking Swahili or English. Before writing a transcription, I went over the focus group or interview with my translator to

ensure that my understanding of the conversation was correct.

I sorted the raw data into topics to organise it for the results section. These topics became the headings for the results section. I divided the data between interviews with WMA management members and community-related data. From the interviews with the WMA management members, I distilled their proposed grazing regulations and their reasons for implementing them. From the RZMP provided to me by the WMA management, I extracted the current grazing regulations. The community-related data consisted of interviews, focus groups and observational data. The observational data was used to describe the importance of livestock in Maasai culture, which was supplemented by explanations of the grazing system and of the importance of livestock for the Maasai given in focus groups and interviews. The understanding of the grass shortage and the reactions of community members to the solutions of the WMA management were all distilled from focus groups and interviews. During focus groups and interviews these questions were asked explicitly and could thus be easily distilled from the data. Also the results on the implementation problems for the grazing regulations were mostly based on focus group data as one type of focus group focussed on the knowledge of community members about the political processes of the WMA.

The data on the proposed grazing regulations and on the traditional grazing system of the Maasai were used to answer the first sub-question about the fit between the systems. This question was further answered by looking at the reactions from the community to the grazing regulations. The data on the perception of the grass shortage, both by the WMA management and the community, as well as the data on the importance of livestock in Maasai culture was used to create the perspectives given in section 5.1, these then gave input to the second sub-question about situated agency. Also the data on the implementation was used to explain the use of situated agency. Lastly, the data from the WMA management explaining how they would enforce the grazing regulations, together with the data from the VGS on implementation and the data of educated community members about the perceived cause of the grass shortage, gave input to the third sub-question about the realisation of the imagined subject positions.

## 3.4. Ethics

All participants in focus groups and interviews were told that I was conducting research. They were told the purpose of my research and that the data would also be distributed to the WMA management. Furthermore, they were told that I would ensure confidentiality by not including their names in my report, but that I would include gender, age-set and village

of residence and possibly their role in the community if relevant. They were told that they could withdraw at any moment from the interview or focus group or refuse to answer a question.

Also the people that I was living with in the *bomas* knew that I was conducting research and knew what my purpose with the data that I would gather during my stay was. Although it is impossible to ensure full confidentiality for them regarding the WMA management as the WMA management helped me to find these families, I told them that I would not explicitly mention their names in my report but only their gender, age-set and role in the *boma*. I told them that if there was any event during my stay in their *boma* that they did not want to be included in the report, they could say so.

## 3.5. Limitations

During the data collection, I encountered several limitations that may have affected the data. Every place I went, I was always a novelty, attracting attention from the people around me because I am white. This meant that it was sometimes hard to participate in activities as the activity could change because of my participation. I also often attracted large groups of children staring at me. However, during my stay in the *bomas*, people got used to me and gave me less special attention.

It was also impossible to conceal my affiliation with the WMA as I was camping at the WMA office and being driven around in the WMA car. This affiliation meant that some people were suspicious of how much I would tell the WMA management if they spoke badly about them. After one focus group my translator told me that she had had the feeling that the participants were scared to tell me about rule violations out of fear for the police or the WMA management. After this incident, my translator included into her introduction to the focus group that I was working for both the WMA management and the community and stressed that everything would remain confidential.

Another limitation was language. The Maasai have their own language: Maa, apart from that, most also speak Swahili fluently, but still regard it as a second language. Although my Swahili improved during my stay, I was not able to do focus groups or interviews on my own because my Swahili was not good enough, but also because many people preferred to speak Maa or did not know Swahili. This meant that I had to rely on my translator whose English was not fluent, but good enough to give me a clear idea of what was being said. Therefore, there has been a loss of information in translation. Furthermore, sometimes I had to ask my question in three different ways before my translator understood it correctly. Sometimes this meant that we were discussing amongst ourselves for a

moment. But it also happened that she asked the question and the answer that I got back did not fit my question, and I had to ask my question again in a different way. Especially these latter misunderstandings may have influenced my data as my participants may also have been confused by this re-asking of questions. I tried to alleviate translation issues by asking people to do an interview or focus group in Swahili, but many people preferred to speak Maa.

During informal conversations, people would speak Swahili to me and I was able to understand and speak reasonably well. However, whenever my translator was present, they would revert to Maa as they felt more comfortable in that language and expected that my translator would provide me with a translation. Especially in group conversations, my translator was not always willing to give full translations. She was not able to participate in the conversation and at the same time give me an idea what was going on unless I asked for it. Still, I often got the reply 'They are just making their own story.', meaning that she felt it was not interesting for my research or that she just did not feel like translating. At some points I probed further to make her translate, but I often let it go.

Lastly, I found that it was hard to collect people for focus groups. Many people were busy during the day and thus did not have time to participate. Especially in the larger villages, people have to walk for quite a while before arriving at the location of the focus group. Therefore, our participant pool was limited in those villages. We often tried to find people a day in advance. People would say that they would come at a certain time, however, the next day the people were not on time or did not come at all. I often sat for half an hour to an hour with two or three people, waiting for the other people to arrive, while the people that were already there were getting restless. Therefore, I had to keep the size of my focus groups small.

# 4. Results

This chapter describes the results of this research. First, the perspective of the WMA management and the proposed grazing regulations will be presented. Second, the perspective of the community will be presented. The importance of livestock in Maasai culture and livelihood will be explained as well as their perspective on the grass shortage. Lastly, the hurdles that have to be taken before the grazing regulations can be implemented will be considered.

## 4.1. WMA management

In this section, the current and proposed grazing regulations will be discussed as set and proposed by the WMA management as well as their reasons for changing the regulations and their expectations about how this will affect the community.

### *4.1.1. Current grazing regulations*

The current grazing regulations are written in the RZMP of 2011 to 2016. This RZMP has been prolonged with a year as the process of making a RZMP is costly and only 25% of the plans in this RZMP have been implemented (MM, 3/8). The conservation area in the WMA is divided into three zones: the Olkunonoi-Kitendeni wildlife corridor zone located in Kitendeni and Irkaswa, the Sinya photographic safari zone located in Sinya and the Engasurai tourist hunting zone located in Tingatinga and Ngereyani (Longido District Council, 2011). Only for the Olkunonoi-Kitendeni wildlife corridor, grazing regulations are set in the current RZMP. It allows 2000 cattle in the zone per day. This zone has received a cattle restriction as it is only 6 $km^2$ and thus cannot support many grazers. Furthermore, it is an important conservation area as it includes an elephant migratory route that connects the Amboseli with the Kilimanjaro ecosystem. The Kilimanjaro ecosystem is in turn connected with national parks in Tanzania (Longido District Council, 2011; MM, 3/8). According to the WMA management, the cattle limit is rarely reached as the people in the area mostly depend on farming and thus keep small amounts of cattle. They have never had any complaints from the population about the restriction and the VGS do not need to monitor it closely (MM, 3/8).

There are no grazing regulations for the other two zones, the Sinya photographic safari zone and the Engasurai tourist hunting zone. For the Engasurai tourist hunting zone, the RZMP mentions dry season and wet season cattle grazing as well as goat, sheep and donkey grazing, but for all three categories it says: 'Numbers to be determined and

mechanism to control numbers to be determined' (Longido District Council, 2011). The categories are different for the Sinya photographic tourism zone, here, cattle grazing, goat grazing, and sheep and donkey grazing are distinguished. However, also for this area, numbers still have to be determined (Longido District Council, 2011). The WMA management decided not to put numbers in the RZMP to convince the villages to join the WMA. Normally, WMAs are only dedicated towards conservation, meaning that in land set aside for conservation, no human land use can take place. However, Enduimet WMA could not have been established if this had been the case. Many people in the community still remember the problems that protected areas brought them and they are suspicious of policies that prohibit them to use their lands (MM, 12/7, 14/8). As both areas are bigger than the Olkunonoi-Kitendeni wildlife corridor and can thus sustain more grazers and because both areas are less important for conservation than the corridor, it was decided that grazing would be allowed as normally in the conservation areas (MM, 3/8). According to the WMA management, this exceptional position for Enduimet WMA has never been a problem. The RZMP was accepted by the government as they included management according to *'matumizi bora ya ardhi'*, better land use, which is a term that is associated with land use following the ecological view of savannas as equilibrium systems in Tanzanian conservation (KI, 17/7). Furthermore, the traditional leaders regulate grazing among the Maasai, ensuring that they graze in different areas in different months according to the traditional Maasai system. This went well together with the WMA management's conservation policies (MM, 12/7, 19/7).

### *4.1.2. Proposed grazing regulations*

Currently, there is a grass shortage. The WMA management says that it is due to a combination of factors. The land is getting drier due to less rainfall and they expect the rains to become even less in the future due to climate change. Furthermore, they have seen an increase in farming on village lands, leading to a decrease in grazing land. Additionally, the human population in Enduimet is increasing which goes together with an increase in livestock. Lastly, Kenyan Maasai tend to move down to Tanzania because of drought and land privatization in their country. The increase in grazers on a smaller piece of land that is also drier due to climate change leads to problems. According to the WMA management, the land is overgrazed by both wildlife and livestock as they all move to the places where there has been rain, quickly finishing the sprouting grasses and not giving it time to grow (MM, 12/7, 23/7). Overgrazing leads to land degradation and soil erosion, meaning that the grass will not grow back, even if there is rain (MM, 19/7). Soil erosion thus results in a loss of

vegetation and it is seen as a vicious cycle where a loss of vegetation means that the winds can get stronger, leading the soil to be blown away and a smaller chance for plants to sprout (MM, 23/7).

According to the WMA management, this will cause problems for the people and wildlife in the WMA. The WMA management has been given the authority by the Wildlife Division of the Tanzanian government to conserve the wildlife. The wildlife needs grass and will otherwise migrate out of the WMA in search of better pasture, for example in national parks. This would be problematic as the wildlife 'is our wealth, it brings us income [from tourism].' (MM, 14/8). Tourism and the associated revenues are believed to go down when there is less wildlife. Furthermore, wildlife is an important part of the ecosystem and the WMA management is proud to have them (MM, 12/7, 14/8). It also happens that instead of migrating out of the WMA, the wildlife stays in the WMA and moves to village areas where they eat from the farms. Due to the grass shortage, the WMA management expects that these human-wildlife conflicts will increase, causing problems for the community (MM, 7/7). Another problem for the community is that they have less grass in general, causing starvation among their livestock. While the WMA management aims for coexistence of people and wildlife, their main goal and responsibility is conservation. The idea is that through conservation they can improve pastures, earn money and reduce human-wildlife conflicts, all to the benefit of the community (MM, 12/7).

The key to solving these problems is, according to the WMA management, to change the grazing habits of the Maasai. The WMA management has proposed three ways of changing the grazing regulations as well as replanting native grasses and trees to counter (the effects of) soil erosion. Firstly, they propose to prohibit the Kenyan Maasai and other people living outside the WMA to migrate to the conservation area to graze. People from outside the WMA can still migrate to village lands as those are outside the WMA management's jurisdiction. Secondly, they propose to limit the amount of livestock allowed in the conservation area. There is no clear number yet for the amount of livestock that will be allowed, but most likely it will follow the number from a government census about the carrying capacity of the different regions in Tanzania. This will certainly be less than the current number of livestock grazing in the conservation area. Lastly, they propose to limit the time that people are allowed to graze in the conservation area. They propose a maximum of three months, however, they prefer two. This would be from September until November. The rationale behind these three proposals is that it will reduce the number of grazers on the land such that it remains below the land's carrying capacity. Furthermore, the tourist high-season is from June until August. In those months, the WMA management

wants to ensure that there is wildlife to view. 'Wildlife is smart, it only wants fresh grass.' (MM, 19/7). Therefore, it is better to prohibit livestock from the conservation area in these months as grass that is also eaten by livestock attracts less wildlife which is bad for tourism (MM, 19/7).

In my first interview with the WMA management it was said that there is no pressure from donors or the government about the grazing regulations. Both want conservation and this happens in Enduimet WMA. However, during later informal conversations it became clear that there is certainly pressure from outside actors. The government has the power to reject the final RZMP and can thus ask for the inclusion of certain regulations. Another WMA, Lake Natron WMA, had not included *'matumizi bora ya* ardhi' in their RZMP, a term that is associated with land use following the ecological view of savannas as equilibrium systems in Tanzanian conservation, and thus it was rejected by the government (KI, 17/7). The management of Enduimet WMA recognises that including *'matumizi bora ya ardhi'* in the RZMP is important to get it approved. The grazing regulations that they propose fit this narrative (MM, 19/7). Apart from the government, donors also put pressure on the WMA management. The first signs of this came from a fellow researcher who was doing research in the area in 2016. She had heard from Honeyguide, an NGO that provides major funding to the WMA, that the conservation area is overgrazed and that new grazing regulations are needed (KI, 14-17/7). During an informal conversation over dinner, Anna and Moritz were told by an Honeyguide employee that the Maasai need to reduce their livestock as they overgraze the land (Anna and Moritz, 17/7). Although these ideas are accepted by the WMA management, it became clear that they also have to follow them in their grazing regulations as 'conservation is expensive' (MM, 19/7). The WMA does not have enough money to fully sustain itself, 40% of its income is from tourism, 60% has to come from donors (MM, 12/7). Therefore, it often depends on NGOs to carry out its plans and it is important that their plans fit with their donors' views.

The WMA management recognises that their proposed grazing regulations could lead to opposition from the community. Prohibiting outsiders to enter the conservation area to graze goes against the sharing culture of the Maasai and reducing livestock is hard in a culture where the amount of livestock is linked to prestige. Furthermore, the conservation area is mostly used from July until December. Thus, the plan to restrict entry into the conservation area to September until November will affect this traditional system greatly. Although they recognise that their ideas do not fit the community's grazing practices, they do not expect large opposition as the community will have agreed to the RZMP themselves (MM, 12/7). Furthermore, the WMA management argues that 'our plans are for the

betterment of the people, the mass is not always right.' and 'we look for a bright future, but we do not expect a hundred percent acceptance as there are differences in mind set.' (MM, 14/8). Still, they recognise that it is important to convince the community to make the implementation of the plans smoother. However, there is no money to organise seminars to explain the rationale behind the plans to the community.

Especially in Enduimet WMA, it is important to involve the community since, in contrast with other WMAs, land use is allowed in the conservation area. I told one of the WMA management members that this sharing is the core of CBNRM in my opinion. He countered this with: 'How long do you think that land use can go together with conservation?'. He explained that the government's goal for all WMAs is to conserve wildlife but that Enduimet WMA also cares about the community. However, 'we thought that wildlife and livestock could go together, but currently, I see a dark future due to population increase.' (MM, 14/8). This does not mean that he feels that national parks, where there is a strict distinction between conservation within the park and land use outside of the park, are a better option. National parks limit people from their resources, which is unfair. I pointed out to him that that was exactly what the new grazing regulations were intending to do. Although he agreed that I had a point, I was not right. Rather he argued, in the case of Enduimet WMA, the grazing regulations are for the benefit of the people and even if there was no wildlife, they would be beneficial. Wildlife can move out of the WMA when there is no grass, moving to other protected areas. However, the people and their livestock are more dependent on the grasses in the WMA as they cannot move as easily (MM, 14/8). Furthermore, the Maasai are not good at saving grass, they have too many livestock to do this. A well-developed rotation system such as the ranches in southern Tanzania have, would be better and with this system in mind, the WMA management also developed its grazing regulations (MM, 29/7). Therefore, the livestock benefits more from the WMA management's plans than the wildlife. 'The community just has to see that.' (MM, 14/8).

Although these are harsh words, the WMA management also sees that they need the community for conservation. In my first interview, it became clear that Anna and Moritz's job would be to gather ideas from the community to solve the grass shortage as the WMA management feels that this will increase compliance to the grazing regulations when they are in place. Furthermore, they see the value of the traditional leaders who have been regulating grazing land traditionally. Without community support, there cannot be a WMA as the WMA is part of the community. Additionally, the Maasai and wildlife are interrelated, the wildlife occasionally eats livestock and the Maasai keep the savanna from becoming a bush by their grazing practices. Even though the community is important for conservation, the

proposed big changes are certainly needed to keep the WMA a healthy ecosystem for both wildlife and people (MM, 12/7).

## 4.2. Community

In this section, the importance of cattle in Maasai culture will be explained as well as their culture around grazing. Furthermore, the community's perception of the grass shortage will be discussed along with their reactions to the proposed grazing regulations of the WMA management.

### *4.2.1. Livestock in Maasai culture and livelihood*

#### *4.2.1.1. Grazing practices*

Livestock takes an important place in Maasai culture and livelihood. All Maasai in Enduimet WMA hold livestock that is taken to pasture: a mix of cows, sheep, goats and donkeys. There is a traditional system around grazing. From the age of six onwards, children are considered old enough to go grazing with older siblings and from eight onwards, children are responsible enough to go alone or to supervise their younger siblings. In the village Olmolog, grazing is done exclusively by the younger children who are not yet *Moran* (PO, 22/9, 26/9, 30/9, 1/10) whereas in the village Ngereyani the *Moran* are grazing every day, supervising the younger children (PO, 31/8, 6/9, 8/9). As the groups of livestock are larger and the distances are longer there, people do not want to give the responsibility exclusively to children. Depending on the amount of livestock, some children are kept at home to graze, usually boys as they are preferred to go grazing (PO, 26/9, 30/9), whereas the others can go to school. If there are no children to graze, the duty can be given to women as a I saw in Ngereyani (PO, 7/8, 23/8, 27/8). It is also not unusual to hire a child from a neighbouring *boma* to graze the livestock (PO, 23/8). Furthermore, people from neighbouring or the same *boma* can work together. In Olmolog, three brothers live in one *boma*, all with their own livestock. The brothers work together during the wet season when all cattle could be taken together in one herd. During the dry season, they rely on their separate farms for food for the livestock and thus graze separately (PO, 17/9). Furthermore, one of the brothers works together with the neighbouring *boma* in the dry season to graze his goats and sheep as he does not have enough children to do that (PO, 26/9). When people encounter each other in the field, they are less likely to work together. They have conversations and sometimes move together for a while, but it is important to keep the livestock separate so as not to lose any animals. They can recognise their own animals by marks cut into the ears (PO, 23/8, 26/9, 30/9, 1/10). Occasionally, people also encounter wildlife during grazing. These

are mostly peaceful interactions. I have seen giraffe, zebras and gazelle during grazing which all kept their distance from us, but did not appear to be afraid of the livestock (PO, 22/8, 27/8, 2/9, 6/9, 26/9). However, when we encountered a male gazelle among the livestock in Olmolog, the boys I was grazing with immediately got up to chase it as they 'wanted meat' (PO, 1/10). The only wildlife that is dangerous for humans are elephants, they do not keep their distance from humans like the other grazers and are known to kill people (FGW, 26/8; PO, 30/8, 26/9). All children know which wildlife is dangerous and which not. However, I met one boy who had lost his front tooth when he fell while running from a giraffe as he had thought it was dangerous (PO, 1/10).

Every morning around eight or nine o'clock, the herds leave the *boma* and around six o'clock they get back, just before dark. A day of grazing entails walking for some time to a suitable pasture, sitting down and then moving after the livestock as they move while grazing. The Maasai go to the same area every day, sometimes moving a bit further or in a slightly different direction. They choose these places as this is where the most grass in the area is (PO, 23/8, 31/8, 6/9, 8/9, 17/9, 22/9, 26/9, 30/9, 1/10). The goats and sheep are herded together but separate from the cows (FGE, 5/9, 18/9) although in Olmolog some people choose to herd all their livestock together due to the small group size (PO, 22/9, 30/9). The younger animals are left at home as they cannot walk far enough (O, 7/8). If the donkeys are not used during the day, they are herded together with the cows in Ngereyani (PO, 27/8, 31/8; FGE, 5/9) whereas in Olmolog, they are left to graze around the *boma* (PO, 17/9). As there is not enough grass in the dry season, in both Ngereyani and Olmolog, people also rely on the stems of the harvested maize to feed their livestock and especially the cows (PO, 31/8, 17/9, 26/9; FGE, 5/9). Cows tend to eat longer grasses than goats and sheep (KI, 9/8). Furthermore, goats can eat from the trees and do not have the patience to eat the maize (PO, 31/8, 22/9; FGE, 18/9). Therefore, people take their cows to their farms but take the goats and sheep to the fields. The farms are protected by the *Moran*, every farm is private property and people do not want to share their maize with others (PO, 31/8, 8/9). During the dry season, water is not readily available in the grazing area and the livestock has to be taken to the water. Cows are usually taken every day whereas goats and sheep go every other day as they eat greener grasses and leaves than the dry maize stems that the cows eat (PO, 22/9). In Ngereyani there are semi-natural wells: rivers dug by the *Moran* that only flow in the morning until the water supply is stopped upstream. In Olmolog there are wells constructed by the government that receive water from up in the mountains (PO, 27/8, 31/8, 8/9, 22/9, 1/10).

Maasai do not graze in the same area all year, they have a system of different grazing

areas: *oserok, ngaroni, ronjoo* and *olopololi*. The *oserok* is a place close to the *bomas*, it is a communal space where all Maasai of a certain village go to graze and in theory it can be used all year round. However, when the dry season starts around July, this area runs out of grass and they have to move to their drought reserve. The drought reserve is called the *ngaroni*. It is a place a bit further from homestead, but often still close enough to the *bomas* to go back at night. Some Maasai decide to construct temporal *bomas* in the *ngaroni*, for example in larger villages such as Ngereyani. The *ngaroni* is also a communal space and the traditional leaders control the opening and closing time of it (TL, 13/7, 20/7, 25/7, 9/8; FGE, 20/9). Dependent on the rain, the *ngaroni* can open as early as July or as late as September. This is decided in a meeting between the traditional leaders and the elders of the village. People tend to stay in the *ngaroni* until November, but this is also dependent on the amount of grass and rain. If there is not enough grass in the *ngaroni*, people migrate to *ronjoo* which is a place far from home and people have to build a temporary *boma* as they cannot go back to their homes at night (PO, 27/8). *Ronjoo* is often on the land of another community and they have to ask the traditional leader of that community permission to graze there. Normally, there is a little bit of rain in November and December and depending on how much the grass grows, people move back to the *oserok* with all their livestock or keep some in *ronjoo*. Once the rains fully return from March until June, people return to the *oserok*. The *oserok, ngaroni* and *ronjoo* are all communal lands. However, there are also private pieces of land: the *olopololis*, these are relatively small pieces of land close to *bomas* and reserved solely for the use of that *boma*. It is the place for the young and sick animals and is private to ensure that they do not have to walk far to find good grass (KI, 15/7, 5/8; TL, 20/7, 25/7; FGM, 21/7, 26/7, 6/8, 10/8; PO, 23/8; FGE, 5/9). An *olopololi* can be clearly demarcated by surrounding it with thorny bushes (PO, 22/8). However, often it is not and people know where the *olopololi* of a *boma* starts and ends (PO, 27/8).

#### *4.2.1.2. Function of livestock in a household*

Livestock has various functions in a Maasai household. Most important is the milk of the cows, goats and sheep. Every morning before the livestock is taken grazing and every evening after the livestock returns, they are milked. The livestock of the husband is divided between his wives. Each woman milks her own livestock and also uses that milk. They only share the milk if one woman has almost no milk (PO, 25/8). The milk is used for drinking and for making tea and porridge. Especially the tea is important as people drink it throughout the day and every guest is greeted with a cup of tea. We once had a guest who asked us whether the cows were already in *ronjoo* after receiving tea without milk (PO,

19/7); only if our cows had migrated, he could understand that we did not put milk into the tea. Milk is an important part of their nutrition. People that go grazing often only drink a cup or two of tea or porridge before leaving for the day (PO, 11/7, 23/8). The milk is very heavy and it provides them with enough energy to stay out in the field all day.

Apart from milk, cows, goats and sheep also provide meat. Meat is not a daily food for the Maasai as milk is. It is served on special occasions such as ceremonies, when an animal is old or ill or when a specific sort of meat is needed for its medicinal qualities. The first time I saw an animal slaughtered in Maasai land was because of this last reason. I was staying in Ngereyani and the people of the *boma* needed fat for its medicinal qualities: it gives people strength and it makes them fat, this would help to solve the knee problems of one of the *Moran* in the *boma*. As fat was important in this case, they chose to slaughter a sheep as they have more fat than goats and cows. The sheep that they chose did not have any function in the herd; it was an infertile male. As the beneficiary of the slaughter was a man, the slaughter had to be performed by other men away from the *boma* and women are not allowed to attend. The sheep was killed and then carefully skinned. After skinning, they cut the animal in neat pieces, sometimes eating some raw fat. The fat was then separated from the meat. Although the *Moran* with the knee problem was the beneficiary of the slaughter, the meat was divided equally among all the people in the *boma*, only some pieces with medicinal qualities were reserved for him. The Maasai have a traditional system assigning each piece of the animal to specific people to ensure everyone gets some. The meat for the women and children was brought back to the *boma* and the men cooked theirs separately in the bush. Every part of the animal was used, except for the eyes which were given to the dog. Some meat was roasted, but most was cooked in a soup made of fat and water. After taking the meat from the soup, they added some blood. This soup is said to have medicinal qualities and the *Moran* with the knee problem drank about a litre of it in one go. The remainder of the blood was drank without preparing it. Blood is believed to give people strength and energy and to keep them warm. The remainder of the fat was cut in large pieces and fried. The *Moran* with the knee problem would take a bit of it with his meals for the coming days. To help the fat go down well, they drank 'Maasai medicine' with it (PO, 28/8).

The second time I witnessed slaughter was in Olmolog. This was also a sheep which was slaughtered because it was ill and they did not know how to cure it. The procedure was very similar to that in Ngereyani, however the solidified blood was given to the dog as the men did not like it themselves. Again, all meat was divided among the people in the *boma* and the friends helping with the slaughter (PO, 17/9). This division is important as livestock

only belongs to one person when it is alive, when it has been slaughtered, the meat has to be shared (KI, 31/7). Both times I saw how happy people were to eat meat. Many people did not understand that I am vegetarian (PO, 28/8, 29/8). When I tried some meat and got ill the day after, nobody could believe that that was because of the meat and they tried to find other explanations and even offered me more meat and soup to cure me (PO, 29/8).

Also during ceremonies, meat is eaten. Ceremonies take an important place in Maasai culture. I attended ceremonies for birth, marriage, circumcision and to celebrate one's age-set (PO, 22/7, 23/7 29/7, 8/8, 19/8, 4/9). As large groups of people attend, they are important for community building and to keep Maasai traditions alive. During ceremonies, people dance and sing. The dancing is done in a big circle and everyone moves at the same time, giving a very communal feeling. The songs contain messages about Maasai culture, there are many songs about how to keep livestock and about the Maasai's love for their cattle (PO, 22/7). The people hosting a ceremony prepare a traditional dish for all people attending. To feed all these people often one to four cows are slaughtered along with some goats (PO, 29/7, 12/8, 19/8). Sheep meat is considered too fatty on these occasions. It is not possible to host a ceremony without slaughtering (PO, 29/7). The slaughter is done by the *Moran* at a place out of sight and they also prepare the food. The *Moran* are given this task as they cannot eat any meat that has been seen by women. Historically, this rule developed to ensure that also the women get enough meat. Furthermore, *Moran* cannot eat any food on their own, to ensure also the poor get to eat (MM, 21/8).

Apart from food, livestock and especially cattle provides prestige. A man with many cows is a rich man and is respected in the community. Many people say that 'cattle is like a bank' meaning that it contains all their wealth. They sell livestock at markets if they need to buy food or pay school fees (FGE, 18/7, 25/8; FGW, 26/8, 1/9, 27/9; TL, 9/8; MM, 5/8). Furthermore, a man who wants to marry has to pay around six cows to the father of his fiancée as a bride price (PO, 17/9). People are very proud of their cows and they are very concerned when they are thin or ill. In Ngereyani, I saw how the head of the *boma* tried everything to make a very weak cow as comfortable as possible. He ordered the *Moran* to bring it water and food throughout the day and he got very agitated when the *Moran* told him that they did not know what was wrong with the animal (PO, 7/9).

Livestock also provides the Maasai with utensils. Cow skins can be used as beds, but they also use the leather to make belts and shoes (O, 10/7). Furthermore, during one ceremony to celebrate the unity of the *Moran*, all *Moran* wore a piece of skin of the cow that they had just slaughtered together around their finger (PO, 29/7). Also the horns and tails of cows can be kept for the purpose of decoration (O, 10/7). The smaller skins of sheep and

goats were historically used as clothes, however now they are less useful and are thus often sold or given to the dog (PO, 28/8, 17/9). Furthermore, cow dung is very important to the Maasai. When mixed with water, sand and ashes, it becomes a strong mud to build houses with. They have to re-apply a layer of mud every two months to keep their houses in a good condition. To build a house, a lot of dung is needed, people normally take all the dung available in their *boma* (PO, 30/8, 19/9, 29/9). Although cows, goats and sheep provide the Maasai with many more things than donkeys do, also donkeys are indispensable. Maasai keep small groups of donkeys, often two or three per woman in the household (PO, 31/8). These are used to carry heavy loads such as water, firewood or food from the market (O, 9/7; PO, 24/8, 2/9, 21/9).

Next to livestock, many Maasai have a piece of farmland. Especially in the highlands farming is an important livelihood strategy. People have less cows than in the lowlands and depend more on their farms for food. The *boma* that I stayed at in Olmolog has 54 cows divided over three men and their four wives (PO, 17/9). The *boma* that I stayed at in Ngereyani has more than 200 cows for only one man and his twelve wives (PO, 8/9). Both *bomas* that I visited own farmlands. However, not all people in the lowlands have farms (FGM, 6/8) whereas most people in the highlands do (FGM, 18/7, 21/7). When I asked about the importance of farms for their livelihood relative to livestock, it became clear that especially in Olmolog, farms are as important or even more important for food production than livestock is (PO, 17/9, 28/9). In Ngereyani, people prefer livestock but still need farms. However, almost everyone that I spoke to prefers to give up their farm over their livestock (FGM, 6/8, 10/8; FGE, 25/8, 18/9; FGW, 26/8). People told me that 'Maasai and livestock go together' (TL, 9/8; FGW, 26/8). Moreover, they do not want to be like the Swahili people who do not have livestock (FGW, 26/8). A Maasai without a farm is still a Maasai, but a Maasai without livestock loses such a large part of his culture that people find it hard to consider him still Maasai (FGW, 26/8; TL, 9/8; PO, 28/8, 17/9, 27/9).

### *4.2.2. The grass shortage*

#### *4.2.2.1. Perceived effects, causes and solutions*

Everyone that I spoke to told me that there is a grass shortage. The effects of this are numerous. Less grass means less food for the livestock which consequently becomes weaker. Hence, they have less milk: about half of the milk that they have in the wet season. Some people told me that they need to increase their amount of cows to have enough milk (FGE, 26/7). Often, there is just enough milk to make some tea, but not enough for porridge or to drink (O, 10/7; FGE, 26/7; PO, 5/8, 25/8, 16/9, 29/9; KI, 23/9; FGW, 27/9).

When the livestock gets even weaker, they die. This effect is often mentioned first and is a major concern for many Maasai (FGM, 18/7, 26/7, 6/8, 10/8; FGE, 18/7, 26/7, 21/7, 6/8, 25/8; TL, 20/7, 9/8; TL, VL, 25/7; MM, 5/8; VL, 9/8; FGW, 26/8, 27/9). In the lowlands, I heard that many cows died last year, ranging from 60 to 200 per family, which is a loss that is hard to recover (PO, 31/8, 8/9). To save their livestock, people try to find more grass. This leads to an increase in migration and families are taken apart; some migrate and some stay behind (FGE, 18/7, 21/7 26/7, 6/8, 25/8; TL, VL, 25/7; MM, 5/8; FGM, 6/8, 10/8; VL, 9/8; TL, 9/8; KI, 10/8; PO, 24/8, 8/9; FGW, 27/9). Those who stay behind have less milk than they would normally have (O, 26/7) and miss cow dung to build their houses (FGW, 27/9). The migration also starts earlier. People told me that they already went to *ronjoo* from July until August and only came back when the maize had been harvested (PO, 31/8). Others had stayed until September when their traditional leader told them to come back to prevent environment degradation (PO, 17/9). People can stay in one place for a shorter period of time (FGE, 21/7) and they have to walk further when they go grazing (PO, 5/8). As there is not enough grass in many *olopololis* the young and slightly sick animals have to come grazing too in order to survive (PO, 23/8, 31/8). Furthermore, there are more conflicts over grassland (FGM, 6/8; VL, 9/8; PO, 20/9). I heard a story of a Maasai who had been killed as he grazed in the empty farm of a Swahili (PO, 20/9). As migration is becoming problematic, many people try to save their livestock by buying food for them (FGM, 26/7, 10/8; FGE, 6/8; FGW, 27/9; PO, 22/9, 28/9). Some people sell some livestock to earn money to buy food for their remaining livestock (KI, 23/9). Especially in the highlands, people try to keep their number of livestock low such that they can feed them for longer from the grass and farms and have to buy less food if needed (PO, 20/9, 22/9).

The loss of livestock means less milk and meat and thus people get hungry (TL, 20/7, 9/8; TL, VL, 25/7; FGE, 26/7, 25/8; MM, 5/8; FGM, 6/8; FGW, 26/8; PO, 8/9) 'Some people have many cows and if they die, they also die themselves' (FGE, 25/8). Furthermore, weak animals are sold cheaper in the market, leading to poverty (FGE, 18/7, 26/7, 6/8; TL, 20/7, 9/8; TL, VL, 25/7; MM, 5/8; FGM, 10/8; PO, 24/8, 21/9) and adding to the lack of food. Additionally, there is no money to pay school fees and children drop out of school (TL, 20/7; FGE, 25/8; FGW, 26/8). *Moran* sometimes decide to move to cities to find a better way of earning income (TL, 20/7, 9/8; FGE, 6/8) and people try to build small businesses in their home town (VL, 25/7; FGE, 26/7; TL, 9/8; FGM, 10/8). The loss of livestock ultimately leads to a loss of culture, as livestock is such an important part of Maasai culture (TL, 20/7, 25/7, 9/8; VL, 25/7; MM, 5/8; FGE, 25/8, 6/8).

Not only the livestock, also the wildlife has less grass. This has two major effects.

Firstly, there are more human-wildlife conflicts. The grazers try to find food by entering the farms of the Maasai, which are subsequently destroyed (MM, 5/8; FGE, 6/8, 5/9). Furthermore, hyenas enter *bomas* as the wildlife that is normally their prey, migrates (FGM, 18/7). In Olmolog, 200 goats and sheep and one cow were killed by a group of hyenas during one night. Only 18 goats and sheep were left to the family (PO, 22/9). Wildlife also occupies wells or damages the pipes that bring water to the wells due to the lack of rain and thus natural streams (MM, 5/8; PO, 10/8, 30/9). Secondly, wildlife moves away from Enduimet. Some people view this positively as they hope it will lead to less human-wildlife conflicts (FGM, 10/8). However, others think it is a pity (TL, VL, 25/7; TL, 9/8): 'When I was young, I liked to see giraffes and gazelles. This is unique, some people do not have them but we do. I want the next generation to see them.' (TL, 20/7). Other people were more concerned about the income from tourism that would go down if there is less wildlife (FGE, 21/7; TL, VL, 25/7; TL, 9/8): 'As an organisation, we depend on wildlife for tourism and favourite animals like lions and leopards move away quickly.' (MM, 5/8). However, some people feel that the income from tourism is negligible (TL, VL, 25/7), it only goes to the government anyway (TL, 20/7).

Lastly, people worry about the environment. The lack of rain causes grass seeds to die (FGE, 26/7; TL, 9/8). Furthermore, trees die, causing plants that live in the shade of those trees to die as well (TL, 9/8). The death of trees is problematic as it becomes even harder to predict rain as trees become greener just before the rains start and most importantly the trees cannot attract rain anymore (TL, 9/8; FGM, 10/8).

Although the effects of the grass shortage were agreed on by most people, the Maasai were not so unified about the cause of it. All people mentioned a lack of rain as a cause. People told me that there has been less rain this year but also in previous years (TL, 20/7, 25/7, 9/8; VL, 25/7, 9/8; FGM, 18/7, 21/7, 26/7, 6/8, 10/8; FGE, 21/7, 26/7, 6/8, 25/8; VGS, 27/7; MM, 5/8; KI, 10/8, 21/8; FGW, 26/8, 27/9; PO, 17/9). Furthermore, they experience droughts more often. When the elders were young, the droughts happened every eight or nine years, but now every three years there is a drought (FGE, 26/7, 25/8). In addition, many people feel that the rains have become less predictable; the clear boundary between the wet and dry season has become blurry (KI, 18/7; FGE, 18/7, 25/8; MM, 4/8, 5/8, 15/8, 22/8; VL, 9/8; FGM, 10/8). Thus it occurs that during a period that is called the dry season, I still experienced drizzle in the morning or even some rain (O, 22/7, 24/7, 26/7, 2/8, 4/8, 15/8, 22/8, 18/9). This is problematic as when the rains are predicted wrongly, it means that the Maasai may have to migrate more to find good pasture (VL, 9/8).

People do not know what caused the change in rainfall. Some told me that it has to

do with a certain star that is in the wrong place in the sky. Another star is staying in the ground and thus the grass also stays in the ground (FGE, 26/7). Traditionally, the Maasai made weather forecasts using stars, but this knowledge is fading from the younger generation (KI, 31/7). Furthermore, some people said that the increase in human population is an indirect cause of the lack of rain. More people means more farms and the chemicals used at the farms are bad for the environment (FGE, 18/7). Additionally, trees are cut to create farms and *bomas* and trees normally attract rain. The evaporation from the trees forms clouds from which it rains (FGE, 18/7, 5/9; VGS, 27/7; TL, 9/8; FGM, 10/8; FGW, 27/9). Some people see this as a vicious circle: with the trees dying, there is less rain and less rain causes trees to die (FGE, 26/7). However, most people say that only God knows why the rains have changed (TL, VL, 25/7; FGE, 6/8, 25/8; FGW, 26/8, 27/9) and some people thought that they might have done something wrong which has made God angry enough to withhold the rains (FGW, 27/9).

Another cause to the grass shortage that people bring up often is the increase in the human population over the years. This means an increase in livestock as all people want to sustain themselves. Furthermore, the Maasai are becoming less communal, every son wants his own livestock (KI, 17/7, 31/7). Also western medicine contributes to the increase in livestock. It cures diseases like rinderpest which kept 'the balance of nature' in the past (KI, 31/7). The increase in livestock means that the grass is finished more quickly than before: the land is overgrazed. The effect of overgrazing is also largely debated in this group of people. Most people tell me that it is just a temporary inconvenience, when it rains, the grass will grow back (TL, 20/7; KI, 21/7; FGE, 21/7, 6/8; FGM, 18/7, 21/7, 6/8; MM, 5/8; VL, 9/8; FGW, 27/9). However, other people see it as a long term problem. They tell me that even when it rains, the grass may not be enough for all livestock (TL, VL, 25/7) or may not grow back at all due to soil erosion (FGM, 18/7; VGS, 27/7; MM, 5/8; KI, 10/8, 21/8). This idea is especially prevalent with educated Maasai. When I went grazing one day, a young *Moran* who was on holiday from school came to walk next to me and said: 'You know Lianne, cows in Africa cause soil erosion.' (PO, 31/8). A couple of days later I went grazing with him and he explained what he had meant. He said that soil erosion happens in places where livestock passes often. The place becomes dusty and the vegetation disappears and will not come back with the next rain. However, this problem does not happen in the fields where they graze, only on the roads to the fields. He had learned about this in school and said that only educated Maasai knew about it (PO, 6/9). This line of reasoning is certainly not taken up by all people. Some people countered it by saying that the grass shortage is only due to the lack of rain and that livestock has nothing to do with it (TL, 13/7; FGE,

21/7; KI, 10/8; FGW, 26/8). Furthermore, during one focus group, the people told me the opposite: due to the frequent droughts there are less people and less livestock (FGW, 26/8).

There are several minor causes which are not mentioned frequently such as insects eating the grass (FGM, 6/8) as well as the increase in agriculture in the highlands as it means that there is less grazing land available (FGE, 18/7; KI, 31/7). However, this was also countered by a traditional leader who said that there was a good division between the *ngaroni* and the farms (TL, 20/7). Lastly, some people mention wildlife as cause. It eats the grass in the area and also grazes in the *ngaroni* when it is still closed for the Maasai, leaving less grass for the livestock. This has only become a problem with the WMA as now the wildlife has increased as they are not allowed to kill it (FGE, 18/7, 21/7, 26/7, 18/9, 20/9; FGM, 21/7; KI, 31/7; FGW, 27/9). Others counter this (FGM, 26/7; VL, 9/8; FGW, 26/8): 'The wildlife doesn't finish up all the grass' (TL, 20/7).

To understand the interplay of grass with all the other natural factors well, I asked two focus groups to map out their ecosystem. Both told me that grass interacts with livestock, wildlife and rain. In the highlands they saw all three factors as a cause and especially wildlife as without wildlife there would be enough grass, even if there was low rainfall (FGE, 18/9). However, in the lowlands they told me that only rain is the cause of the grass shortage as with enough rain, there is enough grass for both wildlife and livestock. Additionally, there is not enough wildlife to finish the grass (FGE, 5/9). Neither saw soil erosion as a cause. Only soil erosion due to floods could destroy the grassland (FGE, 5/9, 18/9).

As rain was seen as the major cause, people felt that the solution would be rain. However, they often did not know how to achieve this, a common reply was: 'Only God knows' (TL, VL, 25/7; FGE, 6/8, 25/8; FGW, 26/8, 27/9). Some felt that praying for more rain would work (PO, 24/9) whereas others said that traditional ceremonies in which they appeal to their ancestors with a sacrifice would work (FGM, 26/7; PO, 24/9). The people that described the loss of trees as a cause also saw planting and protecting trees as part of the solution. More trees would create rain by evaporation, shield clouds from the wind such that they are not blown away and provide shade for water sources (VGS, 27/7; TL, 9/8; FGM, 10/8; FGE, 5/9; FGW, 27/9). However, some of these people also saw the gaps in this plan as 'without rain, even trees die' (TL, VL, 25/7; TL, 9/8). Furthermore, one person remarked: 'There is less rain in Sinya [in the lowlands] but also in Kilimanjaro forest where there are plenty of trees' (KI, 31/7). Other people proposed to introduce better grass breeds that can withstand droughts better and are not finished as quickly by the livestock (FGE, 21/7, 6/8; TL, VL, 25/7; MM, 5/8; KI, 10/8), but also here, people observed that this would

only work if there is rain to make the grass grow (KI, 10/8). Another idea to preserve the environment was to educate people about the effects of overgrazing such that people might be inclined to reduce their livestock. In such a case, it would be better to have better quality livestock as well (VL, 13/7; FGE, 26/7). However, this should always be the choice of the people themselves (VL, 13/7; TL, 13/7, 20/7; FGE, 18/7, 26/7; KI, 31/7, 10/8). Remarkably, not all people that saw overgrazing as a cause, saw livestock reduction as a solution, many felt that overgrazing would be solved if the rains came back.

Although these three solutions are supposed to solve the cause of the problem, many solutions were coping strategies. People proposed that the WMA management should build water reserves for the livestock and wildlife (FGE, 21/7). Furthermore, people said that they would migrate more (FGE, 6/8; FGW, 26/8, 27/9) even to national parks if needed (FGE, 18/7). Others proposed to increase agriculture (TL, 9/8; FGM, 10/8) or to start beef farming (TL, 20/7), but both these solutions would not work without rain (FGE, 6/8). People also thought about buying food for their livestock (FGM, 10/8). Some people thought about livelihood diversification. Firstly, through formal education as people that have been to school find jobs more easily (TL, 13/7, 20/7; VL, 13/7; FGE, 18/7, 26/7; KI, 10/8); 'Livestock dies, but education does not' (PO, 27/8). Secondly, people thought about building up their own businesses (FGE, 26/7; TL, 9/8; FGM, 10/8). However, even if people have had the possibility to diversify, they do not want to give up livestock as they would miss Maasai life (KI, 23/7).

*4.2.2.2. Reactions to the solutions of the WMA management*

The solutions that the WMA management proposes were generally not received positively. Before I had even introduced the ideas, the people from one focus groups asked: 'Will these solutions help the wildlife or the people?' (FGE, 5/9). The community is most unified in resisting the idea to only open the conservation area -which is the *ngaroni* for the Maasai- from September to November. Many people said that they like their traditional rotation system (VL, 13/7, 9/8; FGE, 2/17, 26/7, 6/8, 25/8; TL, VL, 25/7; MM, 5/8; FGM, 6/8, 10/8; TL, 9/8; KI, 10/8). It is good that it depends on the timing of the rain (FGE, 18/7, 21/7, 6/8, 25/8, 5/9, 20/9; FGM, 21/7; FGW, 1/9, 25/9, 27/9), if there is a little rain, the *ngaroni* should be open for longer as the drought is longer, whereas if there is a large amount of rain, the *ngaroni* can be opened for a shorter period of time (MM, 5/8). Many people said that opening the *ngaroni* from September until November would therefore be too short and would be at the wrong time (TL, 13/7, 20/7; FGM, 21/7, 26/7, 10/8; FGW, 26/8). People felt that this plan would bring the same problems as the drought would, such as weak animals

and conflicts over land (VL, 25/7; FGM, 6/8; FGE, 5/9) and they worried about where they would take their animals during the months that they would normally also graze in the *ngaroni* (TL, 13/7, 20/7, 9/8; FGM, 18/7; FGE, 21/7; VL, 9/8). Some people wanted to fight the regulation, they would be angry as the conservation area is still communal land (FGM, 18/7, 21/7) and it robs the community of their land in the same way national parks do (TL, 20/7). Some said that they would go up to the district government to force the WMA management to change the regulation (FGM, 18/7) whereas others said that they would graze in the conservation area anyway (FGM, 18/7; TL, 20/7; FGE, 6/8). However, still others were afraid to fight and would stay home and watch their animals get weaker (FGM, 21/7, 6/8; FGW, 26/8). These people were afraid to break the laws of the elders (FGM, 21/7, 26/7). However, when they understood more clearly that this was the WMA management's plan, they said that no outside authority can change the opening and closing time of the *ngaroni*, that is the job of the traditional leader as it is communal land (FGM, 26/7, 6/8, 10/8; VL, 9/8; TL, 9/8; FGW, 26/8, 1/9, 25/9, 27/9; FGE, 5/9, 20/9). Only one person remarked that this plan might be possible if the Maasai had another place to graze or more education such that they could diversify their livelihood (VL, 25/7). Many people found it hard to understand what this plan exactly entails. At first, many people agreed with it as it is around the appropriate opening times and shorter grazing would mean more grass. However, when I asked additional questions, all people came up with the problems mentioned above and decided that the plan would not work for them after all (FGE, 5/9, 20/9; FGW, 26/8, 1/9, 25/9, 27/9).

The plan to ban outsiders from the conservation area, was also received negatively. Only some people liked it, they said that it would be good as outsiders finish the grass quickly and may bring diseases but do not give anything back (VL, 13/7; FGM, 18/7, 26/7). However, most people said that migration by outsiders to their lands builds a reciprocal relationship (FGE, 21/7, 6/8, 25/8, 5/9, 20/9; FGW, 26/8, 1/9, 25/9, 27/9; TL, VL, 25/7; VL, 9/8; TL, 9/8; KI, 10/8; FGM, 6/8, 10/8). The Maasai feel a need to help each other, even though they recognise that outsiders may bring diseases and that the grass is finished more quickly if more people graze the land: 'As a pastoralist society, we must share everything' (FGE, 26/7) and 'How can you force someone to take their animals to die?' (FGE, 18/7). Furthermore, if they don't allow outsiders to graze on their lands, they also cannot migrate outside the WMA if needed: 'You do not know where the rain will come, next time we have to go to Kenya' (TL, 20/7). One person very clearly summarised these feelings by saying: 'Life depends on friends and cattle.' (TL, 13/7). The Maasai do not accept the WMA management's authority to ban outsiders from the conservation area. During focus

groups where I directly asked who had the authority to allow people in the *ngaroni,* people told me that these are the traditional leaders (FGW, 1/9, 25/9; FGE, 5/9, 20/9) and sometimes also the village leaders (FGE, 5/9, 20/9; FGW, 25/9). 'Migration is not a big problem, limiting outsiders does not solve anything. They ask permission to graze anyway and they have to stay out of the *ngaroni*. […] Migration creates a relationship and helps with problem solving. Sometimes the government rules undermine the Maasai but we follow the laws of the traditional leaders, it is good.' (FGE, 21/7). If the WMA management would want to enforce this plan, there would be a reaction from the community. Some people said that they would send their traditional and village leaders to talk to the WMA management (FGE, 5/9). However, others were bolder, saying that if the WMA management does not allow livestock, also wildlife should not be allowed (FGM, 10/8; FGW, 1/9) and that if the WMA management does not listen to their complaints, they may kill some elephants (FGW, 1/9).

The idea of livestock reduction in the conservation area divided the community most. It essentially forces people to reduce their overall livestock as their surplus does not have another place to go (FGE, 6/8). Many people said that they need the livestock for their livelihood and that reduction would be very problematic for them as they cannot sustain their families anymore (TL, 13/7, 9/8; FGE, 21/7, 6/8, 5/9; FGM, 18/7, 26/7; FGW, 26/8, 1/9, 27/9). They also felt that livestock is an important part of their culture (TL, 9/8). Furthermore, 'Drought is enough to reduce the number of livestock, but telling people to reduce livestock themselves is very difficult as the whole community depends on livestock.' (FGE, 6/8), they already lose about half their livestock during a drought (FGE, 25/8). Therefore, some said that reduction would be good only if there is a low amount of rain (FGM, 6/8; VL, 9/8; KI, 10/8; FGW, 25/9), but it is hard to sell livestock during droughts as there is not enough grass to feed them (KI, 10/8). The people that did not see reduction as a solution said that the grass shortage would be solved if there was enough rain.

Others felt that reduction would be a good idea as the remaining livestock would be stronger (TL, 20/7; MM, 5/8) and less livestock would die (FGE, 21/7). Furthermore, there would be fewer conflicts over grassland (MM, 5/8) and it is possible to reduce as people could use other livelihood strategies by relying on education, farming and businesses (MM, 5/8; VL, 9/8). Some would reduce out of fear for the future as only God knows when there will be enough rain again (FGM, 10/8). However, others felt that rain would not solve the grass shortage; livestock causes overgrazing (FGE, 21/7; TL, VL, 25/7) and their amount should be proportional to the land (KI, 10/8). Furthermore, enough rain would only conceal the problem of the amount of livestock, but not solve it (KI, 31/7). To get this view understood by the community, people proposed to educate the community first before

asking them to reduce livestock (TL, VL, 25/7; MM, 5/8; FGM, 6/8). However, even then people felt that it would be bad if they were forced to reduce; everyone should decide for themselves whether this is possible in their case (FGE, 25/8; MM, 5/8): 'Animals for Maasai are like a bank, an account created for the children, if we're forced to reduce, what do we give the children?' (FGE, 18/7). Nobody felt that the WMA management could tell them to reduce, the members of the WMA all have many livestock themselves so they should reduce as well (TL, 9/8). Furthermore, only the head of the *boma* has authority over the amount of livestock, he owns the livestock and looks after it (FGW, 1/9, 25/9; FGE, 5/9, 20/9). Some people said that they would resist the decision and not reduce (TL, 9/8; FGE, 5/9, 20/9), others would try to make the village leader change the decision (FGW, 1/9). The people in one focus group told me that the WMA management is always telling them to reduce livestock, but they should reduce wildlife first (FGE, 20/9).

In general, the proposed grazing regulations would make the Maasai very angry as they affect Maasai livelihood too much and they feel that the WMA does not have any authority over grazing (KI, 23/9). The plans are perceived as unfair, the people already have many problems with wildlife in their farms. The WMA should fix those first before imposing grazing regulations which would lead to problems for their livestock. The human-wildlife conflicts in the farms together with the grazing regulations affect both Maasai livelihood strategies (FGW, 25/9). The grievances about wildlife are large. Although I never asked about human-wildlife conflicts, they came up in every focus group. People are agitated about the conflicts but also about the lack of compensation from the WMA management. Their old strategy of resolving conflicts, killing wildlife, is after all forbidden by the WMA management (TL, 13/7, 20/7; FGE, 21/7, 26/7, 6/8, 5/9, 18/9; FGM, 26/7, 10/8; VL, 9/8; FGW, 26/8, 25/9). People remark that it is okay if a lion kills a goat, but not if a Maasai kills a lion (FGM, 26/7) and that the WMA management likes wildlife more than people as when wildlife is killed, the VGS rush to the place, but when a person is killed by wildlife, nobody comes (FGE, 20/9). Some people even want no wildlife on their lands (FGM, 21/7) and people sometimes kill dangerous wildlife (FGE, 5/9). This is understandable, many people know someone who was killed by wildlife (PO, 30/8; FGE, 5/9) and I remember how scared I was when a young bull elephant was standing two meters from my tent (O, 28/7). However, many people still feel that it is important to conserve wildlife, they do not mind sharing their pasture with them (TL, 13/7; FGM, 6/8) and value the revenues from wildlife tourism (FGE, 18/7, 21/7, 20/9; FGM, 26/7; VL, 9/8; FGW, 25/9). 'Wildlife and cattle both need grass, the question is how to care for both within the WMA' (FGE, 21/7).

*4.2.2.3. The rebuttal of the WMA management*

Instead of taking the community's objections into account, the WMA management refutes the community's views by explaining why the cause of the grass shortage is the amount of livestock and thus why their regulations are good. As said, a large part of the community feels that the major cause to the grass shortage is a lack of rain. However, a management member said in a reaction to this: 'Rain does not change anything.' (MM, 14/8). The real problem is the amount of land which has become smaller over the years and cannot sustain the current amount of livestock (MM, 14/8). Even though many Maasai feel that the amount of livestock is not a problem, this management member said: 'People think there is much land for livestock, but even if there is enough rain, the land is not enough.' (MM, 21/8). Some Maasai felt that the wildlife are part of the problem, but the WMA management says that the native wildlife of Enduimet has not increased according to the counts of the VGS. The migratory elephants in the highlands have increased somewhat over the past two years, but those only stay in Enduimet for one month. However, in this same period, the livestock has increased substantially and therefore livestock, more so than wildlife, is the cause of the grass shortage (MM, 23/7). Also when I explained that the Maasai worried about where they would graze their livestock if they were only allowed to graze in the conservation area from September until November, the WMA management brought the problem back to the amount of livestock: 'Why is that? Because they overgraze their own land as well and then have to enter the *ngaroni* early. They should reduce their livestock.' (MM, 23/7). Some Maasai responded to this view with the observation that the amount of rain in the *oserok* and *ngaroni* differs and thus there may be more grass in the *ngaroni* than in the *oserok* and the lack of grass does not have anything to do with livestock (VL, 25/7).

The WMA management recognises that it is hard to tell the Maasai to reduce their livestock, however they feel that it is possible. The mind-set that more cattle means more wealth should be challenged. The Kenyan Maasai already changed this mind-set in 1997 when there was a big drought in which they lost many livestock. The government gave them better quality livestock and since then, they treat livestock as a business instead of as capital (MM, 14/8). This should be possible for the Tanzanian Maasai as well, then they can make a livelihood of agriculture and high quality livestock (MM, 12/7, 23/7, 14/8). To achieve this, the community needs to be educated about how many livestock cause soil erosion and how this affects the land (MM, 23/7, 14/8, 3/9): 'At first it will only be noise in people's ears, but over time people will start to hear the song and accept it.' (MM, 21/8). However, there is no money to educate all people living in Enduimet. Currently, the traditional and village leaders are told about soil erosion during WMA meetings and the WMA

management hopes that they will communicate the information to the community (MM, 14/8). When I pointed out that this will change the livestock-dependent culture of the Maasai, a management member replied: 'The world is changing and so are we.' (MM, 14/8).

This difference in perspectives on the grass shortage may have been shaped by education. Not all Maasai in Enduimet have had education. People that have been to school have been confronted with modern practices that differ from their Maasai livelihood. Tanzanian education obliges children to wear western-style school uniforms and to abandon the stretching of earlobes and the braiding of hair as is common among the Maasai (PO, 23/8). Education is either given in Swahili or English, this excludes the native language of the Maasai. Furthermore, children are educated in a line of ecological thinking that was developed during colonialism. They are told that livestock degrades the land and causes soil erosion if kept above the carrying capacity as often happens due to the cattle complex of the Maasai (PO, 6/9). Thus, education means partly giving up Maasai culture. The Maasai in the WMA management have been part of this education system and have become so detached that their friends call them Swahilis instead of Maasai (PO, 19/8).

## 4.3. Implementation

The grazing regulations are still proposals and there are several hurdles to take before they are implemented. Although the WMA management can contribute greatly by designing the RZMP, it has to be approved by three quarters of the AA members and by three quarters of the villages during village meetings in which three quarters of the people present have to approve it. Thus, community participation could withhold the implementation of the grazing regulations. However, the knowledge of the community about the WMA is fairly low. Some people that I spoke to know where the border between the village land and the conservation area is (FGM, 18/7, 6/8, 10/8; FGE, 20/9). However, others did not seem very certain (FGM, 21/7) or did not know about it at all (FGM, 26/7; PO, 23/8; FGW, 1/9, 25/9; FGE, 5/9). All people that I asked, know the two major policies of the WMA management: they are not allowed to kill wildlife or to cut down trees. These policies are accepted as the wildlife brings income and trees are good for the environment (FGW, 1/9, 25/9; FGE, 5/9, 20/9). However, they lack knowledge about how these policies come into place. Some people admitted that they had no idea how to influence the policies (TL, 9/8. KI, 10/8). The people of only one focus group felt that they have influence on the WMA management's policies in the village meetings (FGE, 20/9), all others that I asked about it did not know that this was possible (FGE, 5/9; FGW, 1/9, 25/9). The participation in village meetings is very low, according to the WMA management there are many people at a meeting if 100 people in a village of

2000 attend (MM, 3/8). Officially, there are quota which have to be reached to make a meeting valid, but these are rarely met (KI, 6/8). The WMA management agrees that it would be better to increase the participation in village meetings but to achieve that, people need to be educated and there is no money for that. However, it would be problematic to stop the process of approving the RZMP just because of low participation (MM, 14/8).

The influence of the AA members is better known. Most people know that they have representatives in the CBO of the WMA (FGE, 6/8, 5/9, 20/9; FGW, 1/9), only one focus group told me that they had no idea about this as they are kept out of the meetings by the men (FGW, 25/9). However, people do not know what the difference is between the members in the WMA. My translator's mother is a member of the board of trustees, but my translator did not know that there is a difference between her mother's function and that of the AA members (KI, 14/8). All people that knew about the representatives also said that they had participated in their election. Most people were positive about their representatives, they said that they trust them to make the right decisions (FGE, 6/8, 20/9; FGW, 1/9). One group said that the AA members always communicate about the WMA meetings to them and that they follow the feedback that the community gives them (FGE, 20/9). However, others felt that the AA members do not do a good job, they rarely give feedback to the community (TL, 9/8; FGE, 5/9) and they do not know what the issues are in the village that they represent (VL, 9/8). These people also told me that they want to know what the CBO of the WMA does and that they want a bigger say in it (FGE, 5/9; FGW, 25/9). Furthermore, a village leader said that there is only one AA meeting per year and that this is not enough. He would also like to have decision making power in WMA meetings as he knows the issues in his village better than the AA members (VL, 9/8).

The AA is thus viewed as an important body by the community. However, it is questionable how well they use their power. When Anna and Moritz presented their findings, only five of the 21 AA members were present as well as two members of the WMA management. One of the members of the WMA management and an AA member were dozing off during the presentation and from the reactions of the other AA members to the presentation, it is doubtful whether they fully understood what was being said. Two of them said that they agreed with Anna and Moritz that livestock reduction would be the solution to the grass shortage, even though Anna and Moritz had never said that (PO, 21/8). Furthermore, the AA members are unlikely to read the RZMP themselves before voting about it. The RZMP is initially written in English and later translated into Swahili (MM, 14/8). Very few people in Enduimet speak English and also Swahili is a problem as it remains a second language for them. Furthermore, the RZMP is a rather long document with technical

language and most adults in Enduimet have only been to primary school. Therefore, it happens that the plans are presented by a good speaker and that the AA members follow this dominant view. The Maasai have a tendency to follow the most well-spoken person (KI, 15/7, 6/8). Another interesting factor is that the chair of the WMA does not know about the plans yet. He agrees that there is currently too many livestock for the amount of land and that it would be good to put a number in the RZMP to restrict the number of livestock grazing in the conservation area. However, he does not want to force people to reduce their livestock as many people depend on it. He disagrees with the other two plans. He feels that outsiders should be allowed to graze in the conservation area as it builds a reciprocal relationship. Furthermore, he feels that the traditional rotation system of grazing should be kept. He considers community support very important for changing the system: 'three or four guys cannot change the system' (MM, 5/8).

The inclusion of the proposed grazing regulations in the RZMP is thus uncertain. However, even if the grazing regulations are included, there can be problems with enforcement. The VGS will be in charge of enforcing the regulations (MM, 3/8). One VGS commented on the plans. He said that he would not enforce any of the regulations if he was not sure that they are supported by the community. The CBO of Enduimet WMA is a community organization and thus all community members need to agree. He disliked the regulations himself as he is also a pastoralist. He felt that enforcing the regulations without support would cause conflict between the WMA management and the community. If the WMA management would ask him to enforce these regulations, he would explain the them why he does not like the regulations and try to make them change their mind (VGS, 27/7). The community was not sure what would happen, some felt that the VGS would enforce the regulations as they are part of the WMA (FGW, 1/9, 25/9), whereas others said that they would not as they are part of the community (FGE, 20/9).

# 5. Analysis

The results chapter has made clear that there is a disagreement about the grazing regulations between the community and the WMA management. At the root of this clash is a difference in perspectives. The lack of dialogue between these perspectives could lead to serious problems for the implementation of the grazing regulations and for the WMA in general. In this chapter, first the main findings will be briefly wrapped up. Subsequently, the research questions will be answered and the findings will be discussed in relation to current scientific literature on CBNRM, institutional bricolage and governmentality.

## 5.1. Summary of the findings

The results indicate that there are different perspectives on four main questions in the debate on the grazing regulations: What is the cause of the grass shortage? What are good grazing practices? Who has authority over the grazing practices? and What is the importance of conservation?

According to the WMA management, the grass shortage is due to overgrazing by the high amount of livestock. Overgrazing leads to soil erosion and soil erosion leads to less fertile soil for the grass to sprout. Therefore, the WMA management defines good grazing practices as any amount of livestock below the carrying capacity of the land that rotates the pastures according to a fixed system. They claim authority over the grazing practices in the conservation area as legally, the conservation area is under their jurisdiction. Their goal with this system is to ensure good pasture to keep the wildlife population high. The Maasai are prohibited to graze in the conservation area during the tourist season as the WMA management hopes to attract more wildlife then. They expect that more wildlife will lead to more tourism and therefore more revenues, which will make the WMA less dependent on donors. Even though they focus on wildlife, the WMA management claims to have the best interests of the community in mind: they believe that their plans will bring the grass back for the Maasai. Wildlife can always move away if there is no good pasture in Enduimet, but that is more difficult for the Maasai. Furthermore, they hope to use the additional revenue from tourism to the benefit of the community by supporting projects in the community and by compensating the opportunity costs of human-wildlife conflicts and livestock reduction. Therefore, the WMA management gives high priority to conservation.

The WMA management's perspective is inspired by the idea that the Maasai's activities are bad for the environment, a narrative that is not uncommon in conservation and that has motivated the historical evictions of people from national park-areas (Dowie,

2009). With CBNRM, this narrative was supposed to have changed from nature without people to nature with people. However, the WMA management wants to eliminate most livestock keeping from the conservation area and this actually resembles what happens in national parks. The difference is that the people in Enduimet WMA are not fully excluded; they are given the rights to graze at specific times with specific quantities of livestock which are deemed safe by the authorities. It is as if the WMA management does not trust the Maasai –while they are Maasai themselves- to make the right decisions about land use and therefore make them for them. This points to a distinction among the Maasai that may have been shaped by education. Education means partly giving up Maasai culture. This detachment from their culture together with negative stories about their livelihood brought by someone with authority seems to make it possible that Maasai in the WMA management start distrusting their uneducated community members to use the land properly. Furthermore, there is some influence from donors and the government who reiterate colonial ideas about conservation. As these two parties are expected to have sound ecological knowledge and as they have financial and legal influence over the WMA management, their ideas are taken up by the WMA management. However, the WMA management members are still to some extent connected to Maasai culture by their family members and friends. Therefore, they still value the Maasai livelihood and try to use conservation in such a way that it also helps the Maasai.

None of the community members adheres to the perspective of the WMA management. The group whose perspective agrees most with that of the WMA management is a small group that has a high level of education. These people agree with the WMA management and support the view that soil erosion is the major cause to the grass shortage. Even though they share the WMA management's view on the cause of the grass shortage, they do not agree with the WMA management on good grazing practices. These people prefer the traditional rotation system of grazing lands which is based on the amount of rain in specific places. The authority over this system lies with the traditional leaders and partly with the village leaders and elders. They say that livestock reduction would be good, but they do not feel that this should be implemented in the grazing system. Instead, each head of a *boma* should decide for himself about his amount of livestock. This group values conservation somewhat less than the WMA management but certainly more than the rest of the community. They feel that wildlife is important for tourism incomes and see the intrinsic value of wildlife.

Among the remainder of the community, three different perspectives can be identified. These perspectives all have two aspects in common: they define good grazing

practices as their traditional rotation system and they place the authority over it with their traditional leaders and to a lesser extent with the village leaders and elders. The amount of livestock is not considered within their idea of good grazing practices, every head of a *boma* should decide his amount of livestock for himself and it is important that he can feed his family with that amount of livestock. The difference between these groups lies in their opinion on the cause of the grass shortage and their view on wildlife conservation. The largest group says that the major cause to the grass shortage is a lack of rain. They recognise that they cannot feed all their livestock with the current amount of grass. However, many of these people do not believe that the high amount of livestock leads to soil erosion and feel that the problem will be solved if there is enough rain to let the grass grow. This part of the community is indifferent about wildlife conservation; they experience many human-wildlife conflicts and see little value in the tourism revenues. A smaller part of the community shares most of these views, but attributes a slightly larger importance to conservation because they attribute an intrinsic value to wildlife and because they value the revenues from tourism. However, these people are more concerned about their livelihood than about the wildlife's continued presence in Enduimet WMA. Another small group in the community says that the major cause of the grass shortage is two-fold: it is due to both a lack of rain and the wildlife that grazes in their pastures. They especially dislike it when the wildlife grazes in the *ngaroni* before they can enter as then there will be significantly less grass in the *ngaroni*. Therefore, they do not value conservation. Wildlife is a burden to them as it partly causes the grass shortage and brings human-wildlife conflicts while they experience little benefit from tourism.

These thee perspectives are mostly created through the Maasai institutions according to which the people have been living all their lives. As livestock plays a very important role in Maasai culture and livelihood, people find it hard to believe that livestock could be seen negatively. Furthermore, especially the institutions around grazing practices and the authority over those practices are very important elements of Maasai culture. The other two elements, the cause of the grass shortage and the feelings about wildlife, are more individual opinions. The educated group in the community has a perspective that half agrees with the WMA management and half with the community. They are still embedded in Maasai culture and its institutions, leading to partial agreement with the other community perspectives. However, they were also disembedded from the Maasai community when receiving their education, leading to partial agreement with the WMA management. However, overall this group disagrees with the proposed grazing regulations, thus showing that the attachment to the Maasai culture plays a larger role.

On the basis of these different perspectives, it can be concluded that the proposed grazing regulations are a serious misfit with Maasai culture and this is also why they are opposed by the community. Instead of promoting a dialogue between the different perspectives to find a solution that could be accepted by all, the WMA management dismisses all community perspectives and claims their own view as the only valid one. The WMA management would be happy to educate the community such that they accept their ideas. However, there is no money to do this. The WMA management currently tries to promote their ideas to the traditional and village leaders who are expected to communicate them to the community, but this is not working. Thus, the WMA has not been able to make the community accept the grazing regulations. The findings also show that the dismissal of the community's perspectives and the inability to make the community accept the grazing regulations has resulted in a specific approach to community participation by the WMA management.

Formally, the community has a large say in the way the WMA is governed. During village meetings, people should be able to give input to the AA members and to accept or reject a new version of the RZMP. However, many people do not fully understand how the democratic process of the WMA works. Nobody is aware that they can reject the RZMP in village meetings and only a small number of people feel that they can give input to the AA members. Furthermore, the community is not well informed about the WMA meetings or a preliminary RZMP. Therefore, community participation remains low even though many people expressed the wish to be more involved. To enhance involvement, community members need to learn how the democratic process of the WMA works. However, the WMA management says that it does not have the funds to educate the community about this. Community participation is not valued highly by the WMA management as 'the mass is not always right'. Furthermore, they are more interested in educating the community about their perspective on the grass shortage to ensure that the community endorses the WMA management's perspective to prevent opposition. Currently there is no opposition to their plans as the community does not understand the plans of the WMA management fully. Many are not able to read the plans and have to make do with the explanation from the AA members, who are often equally unable to read the plans and have to listen to an explanation from the WMA management. As it is already customary in Maasai culture to follow the strongest speaker and as the WMA management can shape the plans in such a way that they sound favourable, the plans are likely to be accepted without really consulting the community. This shows that the current approach to participation ensures that the WMA management can continue to dismiss the community's view and can implement their plans.

The disregard for the community's perspectives and their Maasai culture leads to discontent among the community which is fuelled further by the persistent human-wildlife conflicts. People lose their crops and livestock to wildlife and every year some people die in encounters with elephants. People do not feel as if they are taken seriously in these conflicts. Although they are recorded by the VGS, they are never compensated. Furthermore, the WMA management seems much more concerned about the well-being of the wildlife than of the people. This combination of factors is likely to lead to implementation problems. Although the WMA management can formally implement the grazing regulations, the community can prevent their on-the-ground implementation.

Most importantly, the Maasai are unlikely to accept the authority of the WMA management to execute the grazing regulations. As discussed, much of the grazing practices of the Maasai are currently regulated by the traditional leaders of the Maasai. The people that I spoke to were not ready to give up this practice and hand the authority over to the WMA management, even though they formally have the authority in the conservation area. To successfully implement the grazing regulations, the WMA management needs to convince the traditional leaders to implement them for them. This is however unlikely to succeed considering their different perspectives. Thus, the community is likely to just ignore the grazing regulations. However, if the WMA management is able to convince the VGS to enforce the grazing regulations, which is debatable as they are part of the community themselves, a more outspoken and adversarial reaction from the community can be expected. People could become very angry and their actions could range from complaining to their traditional leaders and motivating them to speak to the WMA management about the grazing regulations, to seriously defying the WMA management by killing wildlife. The community could stop supporting the WMA and actively oppose the WMA management and its policies which could lead to the end of the WMA.

Lastly, it is questionable whether there is a need for the grazing regulations. The traditional leaders are generally obeyed and they keep an eye on the state of the land. They tell the community members to move to another piece of land if they fear degradation. Furthermore, the Maasai are adapting themselves. In the highlands, people generally have less cows as there is less grass due to the increase in farms. In the lowlands, there is more land available for grazing and the climate is less suitable for farms, therefore people still keep larger herds there. It could thus be that the WMA management is trying to intervene in a well-functioning grazing system. This interference could lead to the break-down of the system as both the WMA management and the traditional leaders claim and try to exercise authority. In the literature on dryland pastoralism, the movement regulated by the

traditional leaders is considered an important part of a sustainable grazing system. The break-down of this system could lead to unsustainable land use and soil erosion, especially if a situation close to anarchy comes about in which no one clearly regulates grazing anymore (Morgan, 2009). It seems that by implementing the grazing regulations the WMA management could be creating exactly what it is trying to counter: bad land use.

## 5.2. Answers to the research questions

The theoretical framework of institutional bricolage and governmentality can be used to explain the results above and to answer the research questions, starting with: *How do the formal grazing institutions fit with the locally embedded institutions of the community*? To answer this question, one first needs to know what the respective institutions are. The formal grazing institutions are the three grazing regulations as proposed by the WMA management. Firstly, they prohibit people living outside the WMA area to migrate to the conservation area to graze. Secondly, they limit the amount of livestock allowed in the conservation area. Lastly, they limit the time that people are allowed to graze in the conservation area to September until November. These three grazing regulations would be examined by the VGS who are supposed to remove transgressors from the conservation area and possibly fine them. The locally embedded institutions of the Maasai around grazing state that they rotate the grazing lands in their surroundings. During the wet season, they graze close to homestead in the *oserok* and when the dry season starts, the drought reserve further away from home, the *ngaroni*, is opened by the traditional leaders of the community. They also close the *ngaroni* again when the dry season ends or when they fear for land degradation. If the *ngaroni* does not contain enough grass, each individual can decide to migrate out of their customary grazing lands to lands regulated by another community: *ronjoo*. The traditional leaders of this community can allow someone to graze on their lands. The traditional leaders do not have authority to limit the number of livestock grazing in an area, each head of a *boma* chooses himself how many livestock he grazes in an area open for grazing. Furthermore, each *boma* has an *olopololi* where they can graze their young and sick animals. As this is private land, the traditional leaders do not have a say about the *olopololi*. The formal institutions are at odds with the locally embedded institutions on several points. Firstly, they transfer the authority over grazing from the traditional leaders to the WMA management. Secondly, the opening time of the *ngaroni*, which is in the conservation area, will be fixed to September until November instead of flexible with the amount of rain. Thirdly, individuals are not free to choose their own amount of livestock to graze. This brings about problems for the Maasai as they fear that they cannot own enough

livestock to make a livelihood and that they cannot use their *ngaroni* if needed. Furthermore, they cannot continue their reciprocal relationship with other communities that allows people from outside the area to come to *ronjoo* in Enduimet.

According to institutional bricolage, external, formal institutions that do not fit the context in which they are implemented are likely to be bricolaged by the people in the community. People are likely to re-shape, recombine and reinterpret the institutions at hand such that they fit the context again. This means that they will use both the embedded and the formal institutions to come to commonly accepted institutions. As the formal grazing institutions are a serious misfit with the embedded grazing institutions, this is likely to happen in Enduimet WMA. It is unlikely that this will happen via the official way of attending village meetings and influencing AA members. Rather, such bricolage will be informal, resulting from the agency of people. Institutional bricolage postulates that all actors have situated agency which drives them to (unconsciously) change the institutions to fit their context. This can be analysed by the question: *What kinds of situated agency can be identified among the community?* As described above, there are four different perspectives within the community on grazing. Three of these perspectives are strongly shaped by Maasai culture and its grazing institutions. One of these perspectives is shaped by the received education as well as the Maasai institutions. Furthermore, the perspectives are shaped by unresolved human-wildlife conflicts, which affect people's livelihoods. The persistent human-wildlife conflicts will most likely make people less lenient about the grazing regulations as these also heavily affect their livelihood. The exercise of agency is thus situated in this context of Maasai culture and human wildlife conflicts and this will shape community members' responses to the grazing regulations. Although meaningful participation and involvement in the process of shaping the grazing regulations is lacking, the situated agency of the community guides each individual to handle the grazing regulations such that they fit the locally embedded institutions. Limited enforcement also implies that it is likely that community members will be able to act according to this way of handling the institutions. This means the formal prescriptions articulated in the grazing regulations are unlikely to be followed by the community.

The people in Enduimet have expressed that they will practice bricolage. The community is unified in their opinion on two of the grazing regulations: everyone rejects the regulations which would change the opening time of the *ngaroni* to September to November and which prohibit people from outside Enduimet to graze in the conservation area. In this case, they strongly claim their traditional system and place the authority over both these issues with their traditional leaders. Thus, it is likely that their bricolage practices will

resemble what De Koning (2014) has called articulation. However, about the third grazing regulation, which limits the number of livestock allowed in the conservation area, the community is divided in two groups. A large group opposes this regulation and intends to keep their own preferred amount of livestock. Thus also regarding this regulation, their bricolage practice will resemble articulation. However, a smaller group agrees with the WMA management's idea that there is too much livestock but does not feel that the WMA management should have authority over the number of livestock. They are likely to reinterpret the institution as a guideline -rather than an enforceable number- which can be followed voluntarily if this fits their livelihood. This comes close to the bricolage practice that De Koning (2014) has named alteration. Due to the difference in situated agency regarding the institution of the amount of livestock, it is unclear what the outcome of this bricolage practice will be.

Apart from bricolage regarding the grazing regulations, also the formal institution of the WMA management prohibiting the killing of wildlife will become part of the bricolage practices. Although this institution was formerly well established and accepted by the community through aggregation -they accepted and adhered to this institution and fit it with their embedded institutions- now different opinions on wildlife are voiced due to the introduction of the grazing regulations. The opinions divide the community in three groups with different situated agency. Firstly, there is a group who value wildlife and whose opinion remains unaltered, they will continue to practice aggregation. Secondly, there is a group that feels angry about wildlife and that wants to defy the WMA management by killing wildlife. They are likely to articulate the old Maasai institution of killing wildlife after conflicts and to reject the formal institution of the WMA management. Thirdly, there is a group which is also angry about wildlife, but that does not intent to kill them. These people are more likely to chase wildlife from their pastures to express their anger. They reinterpret the formal institution of the WMA management by ignoring that this institution aims to protect the wildlife in the conservation area. The bricolage practice of this group is likely to resemble alteration. Thus, the implementation of the grazing regulations is likely to also make institutions other than those regarding grazing become uncertain and open to bricolage.

Institutional bricolage assumes that the perspectives are largely static. The institutions may change in the process of bricolage, but the perspectives remain. However, the perspectives can be seen as subject positions which are fluid and can be shaped such that they fit with the grazing regulations. This has been analysed through governmentality, a way of governance that shapes subject positions such that the agency of the community

comes together with the structures of the governing body. Whether this is happening in Enduimet WMA is analysed by the question: *What subject positions are imagined by the grazing regulations and to what extent will they be realized?* For the WMA management, governance is aimed at improving the situation of the grass shortage. To achieve this, they designed the grazing regulations which imagine subject positions that accept the authority of the WMA management to shape the grazing practices. Furthermore, the grazing regulations expect that people accept the soil-erosion narrative voiced by the WMA management and thus accept that grazing needs to be restricted. Both aspects are currently not realised. Many people have never heard about soil erosion and although people accept that the WMA management has authority in the conservation area to protect the environment and thus to prohibit the killing of wildlife and the cutting of trees, they do not feel that grazing is part of environmental protection and thus they argue that the WMA management does not have authority over grazing. According to Foucault, subject positions can be created in several ways. One of these is disciplinary governmentality. The WMA management intends to use education to make the community accept the soil erosion narrative. This has already been proven to be effective in the case of Enduimet WMA as the results show that educated community members that have been taught this narrative in school, accept it and voice it. They have internalised the narrative and try to live according to it. However, only a small part of the community has had such a level of education, and the WMA management does not have the funds to provide education to the other community members. Thus, the WMA management is unable to use disciplinary governmentality. Secondly, the WMA management intends to use sovereign governmentality to make the community accept their authority over grazing in the conservation area. They want to do this by letting the VGS enforce the grazing regulations and restrict access to the conservation area. Transgressors may be just removed from the conservation area but could also be fined. The threat of punishment should shape the behaviour of people such that they follow the grazing regulations and in this way make the community internalise that the WMA management has authority over grazing. However, it is unlikely that the WMA management is able to use sovereign governmentality; as the VGS are part of the community, they adhere to one of the four perspectives described above and they already stated that they do not want to enforce the grazing regulations. A possible strategy to solve this, is neoliberal governmentality. The WMA management has not explicitly stated plans to do this but the VGS could lose their jobs if they do not enforce the grazing regulations. Another form of neoliberal governmentality that the WMA management has employed is the promised compensation for wildlife induced damages. While this could result in local communities

being incentivized into accepting conservation, actual compensation has not happened and this has heightened frustration. The failure of the WMA management to create subject positions of compliance regarding the grazing regulation through disciplinary and sovereign governmentality also leads to weak community participation in the CBO of the WMA. The WMA management does not facilitate a dialogue with the community about their complaints about the grazing regulations. Taken together, it could be argued that the WMA management has not just failed to produce compliant subjects, but might even end up creating resistant subjects due to the lack of dialogue and the failingly applied neoliberal governmentality regarding human-wildlife conflicts. Such resistant subject positions may result in the institutional bricolage practices becoming more explicit and pronounced in which the community starts to actively frustrate the implementation of the grazing regulations and all other processes in the WMA such as wildlife conservation. This may lead to bad land use and possibly the end of the WMA.

With this, I have reached the main research question: *How does the interaction between the subject positions of the WMA management and the community about the formal grazing institutions affect the grazing practices and conservation in Enduimet WMA?* It has become clear that the disagreement between the various subject positions of the community and that of the WMA management is very likely to lead to a problematic implementation process for the grazing regulations. The regulations are likely to be bricolaged by the community such that they will not be implemented as the WMA management envisioned. Furthermore, also other institutions of the WMA management, especially regarding wildlife protection, are likely to exhibit alteration or articulation bricolage practices whereas these were formerly accepted by means of aggregation. This is due to the inability of the WMA management to effectively employ governmentality strategies to shape the subject positions of the community. Their approach to community participation together with their failed disciplinary, sovereign and neoliberal governmentality strategies lead to problems that go further than the grazing regulations alone: they potentially affect conservation within the WMA and possibly the WMA itself.

## 5.3. Discussion

The analysis above leads to some interesting points of discussion about the literature on CBNRM, institutional bricolage and governmentality. The CBNRM literature often sees communities and outside actors as opposing each other: outside actors hinder communities from becoming full and valued participants. The literature shows that if a community is allowed enough participation by outside actors, the CBNRM project is likely to run well

(Dressler et al., 2010; Head, 2007; Measham & Lumbasi, 2013). In Enduimet WMA this has happened: there is a CBO that consists of community members who manage the WMA by themselves. Donors and the government only have some indirect influence on its policies. Thus, formally decentralisation and community participation have happened and the WMA should be doing well. However, the results show that precisely the lack of community participation leads to the implementation problems for the grazing regulations. Although the community is formally participating, this is only a small part of the community, the remainder feels underrepresented and unable to participate. The CBO of Enduimet WMA is run by community members who act like outside actors by not consulting the wider community about the grazing regulations. Nandigama (2013) shows that although the formal spaces for community participation in CBNRM projects may exist, their use is also influenced by informal norms which may withhold certain groups in a community from actual participation in these spaces. The results show a similar process in Enduimet WMA. Thus, ensuring the possibility of community participation in formal places is not the whole solution to the dysfunctioning of CBNRM projects. CBNRM projects should also be vigilant to prevent the project from being run by a small elite group in the community.

It is not surprising that many CBNRM studies did not consider this factor. Although several studies have shown that communities are not homogeneous groups (Agrawal & Gibson, 1999; Ojha, et al., 2016), this is still an easy unit of analysis as communities may seem unified at first glance. This research shows the pitfalls of such an analysis. By seeing the community as an united group, nobody would even question whether the grazing regulations would be accepted by the wider community as the WMA management is made up of community members. The findings showed that there are five distinct groups within the community living in Enduimet WMA, delocalized communities, and only one of them has influence in the CBO. This way, it could come about that such a disagreement arose about the grazing regulations. Although the delocalized communities in Enduimet WMA are more closely connected to each other than an outside actor would be to any of these delocalized communities, they are far enough apart to make one of them act like an outside actor such as those seen in many other CBNRM studies (Dressler et al., 2010; Head, 2007; Measham & Lumbasi, 2013). Interestingly, Ohja et al. (2016) developed the concept of delocalized communities mostly to analyse the interaction between outside actors and community actors in CBNRM projects. However, it has proven to be also effective in a project where outside actors have little influence. Delocalized communities do not only exist in projects where outside actors are present, they exist in any community and their interaction can have a large influence on the success of a CBNRM project (Agrawal & Gibson, 1999). As

Mountjoy et al. (2013) also showed, communities that have shared norms about conservation are more likely to successfully implement a management plan. Thus, it is important for future CBNRM studies to take the heterogeneity of communities into account and the problems for CBNRM projects that can arise from that.

Institutional bricolage helped to point to the problems of the grazing regulations and to explain why people could still influence these regulations even though they do not have the possibility to formally influence the WMA. Furthermore, this research had an interesting finding which has so far not received much attention within the institutional bricolage literature but does fit in it. The results showed that not only the recently introduced formal institution of the grazing regulations would be open to bricolage as could be expected from the theoretical framework (Cleaver & De Koning, 2015; De Koning & Benneker, 2013), also a well-established formal institution that is not directly connected to the introduced institution became open to bricolage: the institution of wildlife protection. Thus, the introduction of a new institution can also influence other institutions of the same governing body. This research observed a spill-over effect to institutional bricolage which was triggered by general discontent about the governing body that introduces the new institution. A community such as living in Enduimet has accepted the institutions introduced to them without much ado even though they did not perfectly fit their context. However, the introduction of another institution not fitting the context led them to bricolage not only this institution but also others that they had formerly accepted. It would be interesting to see whether such spill-over effects are more widespread in cases of bricolage.

This research can also add to the literature on environmental governmentality. The findings suggest that the spill-over effect of institutional bricolage may have been triggered by the ineffectively employed neoliberal governmentality strategy regarding human-wildlife conflicts. This also made it harder to employ governmentality regarding other topics such as the grazing regulations; the ineffectively applied governmentality made people lose trust in the governing body and made it lose its legitimacy subsequently. Thus, instead of only looking at how governmentality is employed, it may also be interesting to look at the effects of ineffectively employed governmentality; that is, the subject positions that were not imagined by the governing body, the subject positions that were to some extent imagined but failed to materialise, and the unexpected and unintended subject positions that did emerge. Fletcher (2017) also recognises that governmentality studies often focus on what governing bodies want to happen but not on what happens and why. The latter is an important question as often vision and execution are not the same. This study shows that the emergence of such unintended subject positions is possible because of the agency of the

subjects, they have the capacity to act differently from the intentions of the governing body. Most studies on governmentality use agency in their analysis in the sense that people subject to governmentality strategies act voluntarily according to their own agency but their behaviour agrees with the governing body's intentions (Agrawal, 2005; Bluwstein, 2017). These studies neglect that agency can also lead to behaviour that is not in line with the governing body's intention. Cepek (2011) recognised this; he saw that it is possible that communities are not transformed into environmental subjects and retain the ability to act differently than intended. Therefore, he critiques governmentality's usefulness as an analytical paradigm for directed change. However, this study shows that governmentality remains an useful analytical tool as it includes agency and thus can be used to explain both why and why not the intended subject positions materialise.

Lastly, it is interesting to look at Fletcher's (2010) discussion about how different types of governmentality fit with different types of conservation projects. He found that sovereign governmentality often goes together with fortress conservation whereas CBNRM projects are often characterised by a mix of neoliberal and disciplinary governmentality. This mix was also found in Enduimet WMA as would be expected, but surprisingly also sovereign governmentality was found to be an important part of implementing the grazing regulations. Sovereign governmentality would be employed similarly to how it is applied in fortress conservation: by removing people from the conservation area (Fletcher, 2010). Thus, power in Enduimet WMA will operate similarly to that in national parks if the grazing regulations are implemented. This raises the question whether CBNRM can be characterised by one type of governmentality. Power in conservation may be less easily described than is done above. CBNRM should be seen as a continuum even though one approach is most visible. Adams & Hulme (2001) describe this continuum as ranging from community support for national parks, to collaborative management of communities with the state or the private sector, to community managed projects that aim to generate revenues through natural resources. Within such projects, there is likely to be a mix of governmentality strategies, some may be inclined towards sovereign governmentality just as some CBNRM projects are inclined towards fortress conservation. Governmentality strategies act together and influence each other (Bluwstein, 2017; Fletcher, 2010). Thus even though disciplinary and neoliberal governmentality strategies are more visible and associated with CBNRM, in practice also sovereign governmentality can be present as well without transforming the CBNRM project into fortress conservation.

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