

From Rationalities to Practices: Understanding Unintended Consequences of CBNRM

Lideweij A.G. Dekker[#], Koen Arts, and Esther Turnhout

Forest and Nature Conservation Policy Group, Wageningen University and Research, Wageningen, Gelderland, The Netherlands

[#]Corresponding author. E-mail: liannedekker@gmail.com

Abstract

Community-Based Natural Resource Management (CBNRM) aims to resolve issues of legitimacy and social justice but in practice this aim is not always met. In this article, we contribute to the understanding of the outcomes of CBNRM by drawing on the concepts of governmentality, practice, and rationalities. We apply this conceptual approach to a CBNRM project in northern Tanzania: Enduimet Wildlife Management Area (WMA). Here a conflict emerged about proposed new livestock herding regulations which were intended to address a grass shortage affecting both wildlife and the Maasai community living in the WMA. Although these regulations were designed as part of the CBNRM process, they were resisted by community members. Our analysis highlights the role of conflicting rationalities between the WMA board and community members about the causes of and solutions to the grass shortage in the ensuing conflict. Specifically, we demonstrate how these conflicting rationalities can be understood as unintended outcomes of dynamic interactions between assumptions and intentions of involved actors, formal processes related to CBNRM, and the communication and participatory strategies employed around the introduction of the new livestock herding regulations. As such, our article illustrates the value of explicitly considering the role of practice in analysing unintended consequences of conservation interventions.

Keywords: community-based natural resource management, Enduimet Wildlife Management Area, human-wildlife conflict, Maasai, nature conservation, overgrazing, participation, Tanzania

PARTICIPATION AND COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT

Despite claims of improved legitimacy and increased community participation in decision-making, Community-Based Natural Resource Management (CBNRM) often fails to deliver (Dressler et al. 2010; Arts et al. 2018). This is particularly problematic when considering how CBNRM developed almost four decades ago, partly in response to the displacement of countless resource-dependent people in the name of nature

conservation (Brockington and Igoe 2006; Agrawal and Redford 2009; Dowie 2009). CBNRM has promoted conservation strategies that include local communities and create synergies between conservation and human development, for example by facilitating sustainable livelihoods for community members that enable them to benefit from conservation revenues. All in all, CBNRM aims to realise win-win situations for nature and local communities (Adams and Hulme 2001). Notwithstanding these aims, enhanced legitimacy of conservation projects in the eyes of local communities, and social justice for those communities, has rarely been achieved (West 2006; Adams and Hutton 2007; Dressler et al. 2010; Mooij et al. 2019). As a result of such failures, local communities may become less inclined to support conservation (Bragagnolo et al. 2017), and even hinder it, for example by killing instead of conserving wildlife (Benjaminsen and Svarstadt 2010; Mariki et al. 2015).

A key component of this CBNRM is the problematic nature of participation (Dressler et al. 2010). Literature on participation in environmental governance has shown that

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desired effects such as self-determination, emancipation, equity and equality, and associated aims of social justice and legitimacy, have often not materialised. Participation is an unpredictable process which may lead to the paradoxical outcome that it reproduces or even enhances the unequal power relations that the participatory intervention intended to resolve (Ribot et al. 2006; Dressler et al. 2010; Cooke and Kothari 2001; Turnhout et al. 2010). Institutional approaches to participation often fail to acknowledge the social, cultural and political context in which participation takes place (Behagel and van der Arend 2013). This context may involve informal institutions that are present in the community (Ostrom 1990; Haller et al. 2018; Mooij et al. 2019). For instance, some people may be officially allowed to participate, but refrain from it because of the informal institutions that are present in their community (Nandigama 2013). As such, approaches to participation which fail to recognise path-dependencies and social and political contexts are an important part of the social justice and legitimacy problems of CBNRM arrangements.

In this article, we build on these insights to analyse a case study of the Enduimet Wildlife Management Area (WMA) in northern Tanzania. In this case study, experiences of grass shortage, which affected Maasai herders and wildlife, resulted in proposed new livestock herding regulations by the WMA board. Although the WMA is an example of CBNRM and the new regulations were designed using a participatory approach, they produced unintended consequences and resulted in conflict. For our analysis, we used a conceptual approach that draws on the notions of practice, governmentality, and rationalities. The analysis focused on the dynamic interactions between the WMA board and community members as they took place in the context of a participatory CBNRM intervention and on how these interactions affected their rationalities and resulted in conflict.

CONCEPTUAL APPROACH

In order to analyse unintended consequences of CBNRM interventions, we have developed a conceptual approach which combines the notions of governmentality (Agrawal 2005; Dean 2010; Fletcher 2017), practice (Arts et al. 2014; Behagel et al. 2019; Mooij et al. 2019), and rationality (Dean, 2010; Behagel and Arts 2014). With this approach we are able to capture the nexus between management interventions on the one hand and local responses to those interventions on the other. Moreover, it creates a focus on the interactions between governing bodies and local communities, and on the role of conflicting stakeholder rationalities in shaping the outcomes of participation.

Governmentality has been defined by Foucault (1991) as a form of governance in which a governing body aims to achieve its policies by shaping compliant subject positions in society. The concept of subject position—as opposed to subject—signifies the fluidity of identity and disconnects it from individual bodies. The concept of governmentality has been applied to analyse forest and conservation governance. Agrawal (2005)

offers an example that shows how environmental subject positions are created in the context of decentralisation in the Indian forest policy. Fletcher (2010) has shown that different ways of applying governmentality are associated with different ways of looking at conservation. He distinguishes between disciplinary, neoliberal, sovereign and truth governmentalities (Fletcher 2010). Disciplinary governmentality is the most well-known form of governmentality. It aims to shape complying subject positions by making people internalise and reproduce certain norms. As a large part of society incorporates these norms, people are unwilling to deviate from them and will exhibit behaviour in line with these norms. Often, disciplinary governmentality in CBNRM arrangements goes together with neoliberal governmentality: neoliberal governmentality acts on the rational mind of people and their tendency to make a decision in their self-interest (Fletcher 2010). This form of governmentality promises that certain behaviour will have a positive (economic) effect for people. Sovereign governmentality works through the threat of punishment. The governing body sets certain rules and people will comply with these rules to avoid punishment. Lastly, truth governmentality works through the authority of powerful universal ideas such as people's belief in God, or scientific frameworks and concepts (Fletcher 2010; Fletcher 2017).

According to a governmentality perspective, authorised institutions draw on particular rationalities which guide the design of interventions and also influence the employment of technologies, such as participation, to implement these interventions (Dean 2010). These rationalities contain ideas about how and why these interventions can be justified and how they will be interpreted, received and enacted by local communities (Behagel and Arts 2014). Rationalities can for example contain ideas about the benefits that local communities will derive from the intervention, about the relation between formal and informal institutions in shaping responses to the intervention, or about the nature of the problem to be solved by the intervention. Yet, these CBNRM rationalities are regularly contested by local communities and may thus fuel conflict. Conflicting rationalities may have harmful consequences for joint governance and it can lead to entrenched positions and social exclusion when authorities (further) enforce their own rationalities (Turnhout et al. 2010).

Governmentality is not a determinist concept that denies agency (Agrawal 2005). Rather, it recognises that behaviour is neither dictated structurally nor the result of the free will of individuals; that is, agency is decentred, relational, and situated in practice (Bryant 2002; also see Dean 2010; Cortes-Vazquez and Ruiz-Ballesteros 2018). In other words, the concept of governmentality emphasises how the objectives of the governing body are not only constitutive of, but are also constituted by the behaviour of subjects. This means that a governmentality perspective can be usefully connected with the concept of practice which emphasises the importance of social and material context and enables understanding of the relation between interventions and their outcomes (Li 2007; Carrier and West 2009). While governing

bodies employ technologies to form subject positions that internalise the rationalities of the governing bodies, the notion of practice emphasises that responses to those interventions and technologies can be unpredictable, involving a reshaping and reinterpretation of rationalities. Therefore, it may happen that rationalities do not converge, which may lead to the emergence of non-compliant subjects and to unintended outcomes. However, our use of the concept of practice avoids a linear understanding (either top-down or bottom-up). Instead, we view practice as the sphere where rationalities are shaped and where both external interventions and responses to those interventions materialise and assume meaning (Nandigama 2013; Arts et al. 2014; Behagel et al. 2019).

With this conceptual approach, we are able to analyse not just the rationalities of the governing body, but also the technologies that are employed to connect the governing body with its constituencies, and the responses to those rationalities and technologies as they emerge in practice. In so doing, we avoid the limitations of top-down approaches that exaggerate the power of governing bodies in steering outcomes as well as bottom-up approaches that overemphasise the individual agency of local community members. Instead, our approach is sensitive to how rationalities, interventions, and local responses emerge as the result of situated and dynamic interactions between governing bodies and community members. In the analysis of our data we use this approach to answer two research questions. Firstly: what rationalities underlie the solutions to the grass shortage proposed by the WMA board and what technologies are employed in the communication and implementation of these proposed solutions? Secondly: what subject positions emerge among the local community in response to these solutions and how do they relate to unintended consequences?

ENDUIMET WMA IN TANZANIA

In Tanzania, many rural communities depend on the local environment for their livelihoods. Since these communities are highly impacted when conservation measures are taken on their lands, they stand to benefit most from participating in the management of conservation interventions. Although Tanzania has a long history of National Parks following the Yellowstone model, many of the newer conservation areas are established on the basis of CBNRM principles (Benjaminsen et al. 2013). CBNRM was incorporated in Tanzanian politics with the Wildlife Policy of Tanzania of 1998. By uniting themselves in a Wildlife Management Area (WMA), communities earn the rights and responsibility to manage and conserve wildlife on communal lands and earn revenues from tourism (Wildlife Policy of Tanzania 1998).

Enduimet WMA received its wildlife user rights from the Ministry of National Resources and Tourism in 2007 and is one of the longest running WMAs (Sulle et al. 2011). The WMA is situated in northern Tanzania, close to Mount Kilimanjaro and the Kenyan border and consists of nine villages in the Longido district that together cover an area of 128,200 ha. By becoming

a WMA, the villages reserved 75,143 ha for conservation (Figure 1). This area is under the jurisdiction of the WMA whereas the village areas remain under village jurisdiction. Through tourism activities, the WMA is allowed to generate revenues which ideally should fully sustain the management of the WMA and community development. However, at the time of study, 40% of Enduimet WMA's revenues were generated from tourism, whereas for the other 60% it depended on donors such as the Honeyguide Foundation, the African Wildlife Foundation, Big Life Foundation and USAID (Board member). These revenues are used for the salaries of the WMA staff and all other costs associated with running the WMA, as well as for projects within the community such as the construction of communal buildings.

The WMA is run by the Authorised Association (AA), a community-based organisation with the objective of conserving wildlife for the benefit of the community (Sulle and Banka 2017). The AA consists of elected community members, three from each village in the WMA, and is headed by the chair of the WMA who is also a community member. The AA gives input to the daily management of the WMA which is in the hands of the WMA board. The WMA board consists of four employed community members: the finance officer, the secretary, the anti-poaching manager and the administrative officer who are together responsible for the day-to-day operations of the WMA. Additionally, the anti-poaching manager supervises the Village Game Scouts (VGS), employed community members who are in the field, looking after wildlife, hosting tourism companies, dealing with human-wildlife conflicts and preventing poaching (Enduimet WMA 2012). The WMA board is also in charge of developing and carrying out the Resource Zone Management Plan (RZMP) in which they lay out their plans for the conservation area. The WMA board is asked to renew the RZMP every five years. 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 board are present. Furthermore, it has to be approved by three quarters of the villages during village meetings 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 (Wildlife Policy of Tanzania 1998; Longido District Council, 2011; Board member).

Although Enduimet WMA is largely managed by the community, the WMA board has not been able to create a situation where both conservation and the livelihoods of the community flourish as suggested by the CBNRM narrative. Enduimet WMA is predominantly inhabited by Maasai whose primary livelihood is pastoralism. This is complemented by agriculture in non-arid areas. Livestock plays a very important role in Maasai society as it is one of their main sources of protein; it provides milk and meat. Furthermore, cow dung is used to build houses and hides are used for beds and other items. The Maasai often say that "*livestock is like a bank*" meaning that livestock can be sold to buy other foods such as

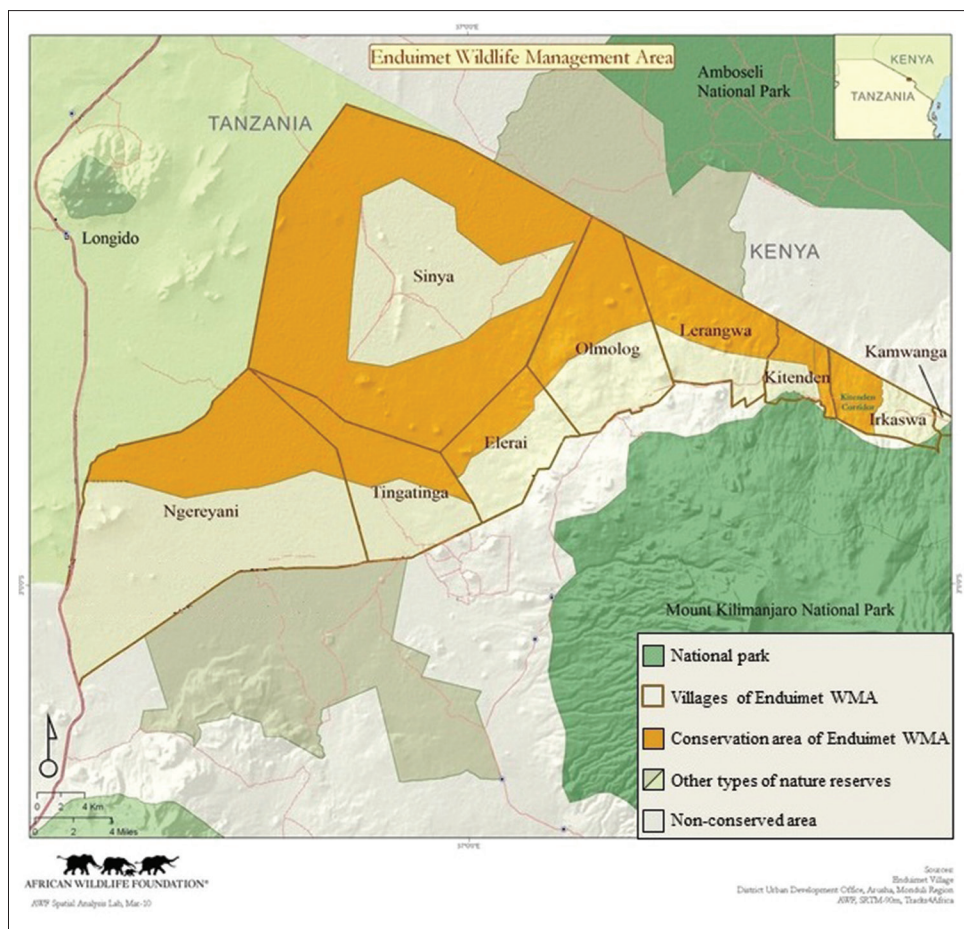


Figure 1

Enduimet Wildlife Management Area is situated in northern Tanzania and comprises of nine villages. The dark red lines indicate the village boundaries, the orange area is land dedicated to conservation which is under WMA jurisdiction whereas the light green area is under village jurisdiction

rice and beans or to pay for school fees. Livestock also has an important cultural value. It is used as bride price paid by the groom to the parents of the bride, and is slaughtered for traditional ceremonies – no ceremony can be held without providing the guests with meat. For these reasons, the amount of livestock provides prestige to its owner, and many Maasai songs and other cultural expressions are about the importance of livestock (Fieldwork observation). Wildlife conservation may challenge this livelihood; human-wildlife conflicts are for example a common problem in Enduimet WMA and remain unresolved by the WMA board.

The human-wildlife conflicts have recently been aggravated by another problem which further affects the livelihoods of the community: according to all informants, Enduimet WMA has been experiencing a grass shortage. This has affected not just the livestock of the community but also the wildlife. The situation poses a challenge for Enduimet WMA because the board needs to consider wildlife conservation as well as community livelihoods. However, the WMA board has thus far mainly focussed their management on the protection of wildlife. Indeed, to govern the grass shortage, the board has designed regulations which restrict grazing by the community's livestock. These livestock herding regulations were yet to be

implemented at the time of study, but already sparked conflict in the WMA. The causes of the grass shortage have not been scientifically validated, and community members and the WMA board all have their own, diverging views about the causes. These diverging views lie at the heart of the conflict. Moreover, the views of the community are neglected by the WMA board and the WMA board is rapidly losing legitimacy. This topical case of the problem of grass shortage in Enduimet that is analysed in this paper will provide insight into the unintended consequences of CBNRM.

METHODOLOGICAL APPROACH

Our analysis draws on materials collected during a three month stay in Enduimet WMA in northern Tanzania during the summer of 2017. Data was collected through a mixed-methods approach of interviews, focus groups and participant observation (Bernard 2017). To understand the rationalities of the members of the WMA board and the technologies employed to introduce the new livestock herding regulations, the first author also stayed at the office of the WMA board, where formal and informal interviews were conducted with the board members and other employees. To

gain insight into the rationalities and subject positions within the community, six semi-structured interviews with traditional Maasai leaders and local government leaders were conducted. Furthermore, 18 focus group discussions were conducted, comprising of four to six people each. The initial ten focus group discussions were done in the five villages that would be most affected by the livestock herding regulations: Olmolog, Elerai, Sinya, Tingatinga and Ngereyani. Five of these focus group discussions were done with senior men as they have a leading position in society and the other five with young men as they are often closest to the livestock herding practice. This differentiation based on age was made using the age-sets that are part of Maasai society. The young men were all *Moran* (*Moran* is the age-set of men who have just entered manhood, it is also considered as the warrior age-set) whereas the senior men were from different age-sets beyond the *Moran* age-set. After attaining insight into the perspectives within different villages, eight more in-depth focus group discussions were conducted in Olmolog and Ngereyani; four with men and four with women. Women were included as they are part of the electorate of the WMA and also have an opinion on the livestock herding regulations, even though they are not highly involved in livestock herding management or livestock herding practices. The initial focus groups explored the causes of, effects of and solutions to the grass shortage, whereas in the later focus groups, the emphasis was on the participants' perception of the ecosystem and of the decision-making around accessibility of the different natural resources, notably grass, in Enduimet WMA.

In addition, participant observation was done in a Maasai household in Olmolog and a Maasai household in Ngereyani, each for three weeks. These households were chosen as they comprise different livelihoods in Enduimet WMA. Olmolog is situated in the highlands of Enduimet where people generally have less livestock and rely more on agriculture, whereas Ngereyani is situated in the lowlands where agriculture is less important and people generally have more livestock. The aim of doing participant observation was to understand the importance of livestock in a Maasai household and the influence that the livestock herding regulations would have on their livelihood. Thus, in each household, the first author participated in herding goats, sheep and cows. Furthermore, she frequently engaged in livestock related activities such as watering livestock during herding, milking livestock in the evenings and slaughter. To establish a relationship with the people that she stayed with and to gain a fuller understanding of Maasai life, she also engaged in other daily social activities such as going to the local market, taking water from boreholes, participating in ceremonies, going to church and cooking.

RESULTS

Rationalities underlying the livestock herding regulations

According to all informants, Enduimet WMA experienced a grass shortage, they said that there was less grass than in

previous years and that the current amount was not enough to feed both livestock and wildlife. The grass shortage has become gradually worse; according to the Maasai elders, in the past there had been sufficient grass in the WMA for their livestock, but for the past three years this has not been the case. The grass shortage has affected both wildlife and people and has created problems for the WMA and the community. While the WMA has a responsibility to ensure sufficient grass is available for wildlife conservation, this needs to be balanced with the local community's need for grass to sustain their livestock. Early 2017, the WMA board designed three livestock herding regulations as a solution to the grass shortage. They intended to include these regulations in the new RZMP that was still being designed at the time. In the previous RZMP – which was still in effect at the time – there were no livestock herding regulations, meaning that the Maasai could use the conservation area freely to herd their livestock (Longido District Council 2011). The WMA board intended to change this. Firstly, they proposed to prohibit people living outside the WMA to migrate into the conservation area to herd their livestock. Migrants could then still go to village areas as those are outside the WMA's jurisdiction. Secondly, the WMA board proposed to limit the amount of livestock allowed in the conservation area. The board was not clear about the exact amount of livestock that would be allowed, but intended to follow a government census about the carrying capacity of the different regions in Tanzania that was not yet published at the time. This amount would certainly be less than the current number of animals grazing in the conservation area. Lastly, the board proposed to limit the time that livestock is allowed to graze in the conservation area to a maximum of three months. This would be from September until November as this is outside the tourist high season (which runs from June to August).

According to the WMA board, the grass shortage is caused by a combination of factors. They believe that the land has become drier due to less rainfall and they expected the rain to decrease further in the nearby future due to climate change. Furthermore, the board has seen an increase in farming on village lands, leading to a decrease in land to herd livestock. Additionally, they have observed an increase in the human population in Enduimet which has led to an increase in livestock. This trend is strengthened by 'Kenyan' Maasai moving down to Tanzania: *"the Kenyans also experience drought and there is land privatisation so they come to us to graze their cattle."* In sum, the board argues that the increase in grazers on a smaller piece of land that is also drier due to climate change, has led to problems. According to the WMA board, the land is overgrazed by both wildlife and livestock as all animals move to the places where there has been rain, quickly finishing the sprouting grasses and not giving it time to grow. The board said that the current number of grazers is higher than the carrying capacity of the land, and as it is mainly the livestock that has increased, the board's measures focus on the regulation of livestock grazing. As one board member said: *"We thought that wildlife and livestock could go together, but currently I see a dark future due to population*

increase [of people and livestock].” and: “People think there is much land for livestock, but even if there is enough rain, the land is not enough”. According to the WMA board, overgrazing leads to soil erosion: “the wind blows away the sand because there are no plants to stop the wind and hold the sand. Because of the erosion, no new plants can sprout and the wind blows even fiercer, becoming a vicious cycle that will end in bare land.” Another reason why the board focussed their measures for the grass shortage on livestock only, is that the board has been given the responsibility to conserve wildlife by the Tanzanian government. It can only do this if there is grass for the wildlife. The board argued that conservation is also important for the community; through conservation, the board believes it can improve pastures, earn money and reduce human-wildlife conflicts, all to the benefit of the community. One board member summarised this as: “Wildlife is our wealth, it brings us income [from tourism]”. Furthermore, the WMA board stressed that it has the legal authority to implement the livestock herding regulations, and a responsibility to do so.

There are various factors underlying the board’s rationalities to limit access for livestock. Firstly, the government has the power to reject a new RZMP and can thus ask for the inclusion of certain regulations, as has happened in other WMAs. Especially ‘*matumizi bora ya ardhi*’ is an important term which is associated with land use following the ecological view of savannas as equilibrium systems in Tanzanian conservation. Donors also put pressure on the WMA board; for example, an employee of the Honeyguide Foundation has said that the conservation area is overgrazed and that new livestock herding regulations are needed. While these factors play a role, the WMA board has been able to circumvent the wishes of the government and donors in previous RZMPs when the board disagreed with them (Wright 2017). This suggests that although upward accountability from the WMA board to donors is clearly a factor, the most important factor underlying the board’s rationalities is its belief in the overgrazing-narrative.

This overgrazing-narrative is by no means new to WMA board members. Firstly, several have been exposed to it in secondary school and university education and during workshops organised by e.g. National Parks. The board member that designed the livestock herding regulations confirmed that he fully relied on this knowledge and disregarded the knowledge about the ecology of their land that he learned while herding as a young boy; he did not see the value of this knowledge anymore. Secondly, the board members have distanced themselves from Maasai life, amongst others through education. Although they still own livestock, it is herded by family members who live in different villages, whereas they themselves live in the village centre close to shops and school and are uninvolved in herding. However, they still value the Maasai livelihood. Therefore, they try to use conservation in such a way that it also helps the Maasai community. Ultimately, the WMA board designed the livestock herding regulations with a disregard of the perspectives of their fellow Maasai, and it is convinced that it is making the right decisions for the land and its inhabitants:

“Our plans are for the betterment of the people, the mass is not always right” (Board member).

Responses of the Maasai community

As the livestock herding regulations would place major constraints on their livelihoods, the Maasai feared that they would not be able to sustain their livestock and thus themselves well enough. Therefore, the majority of the community has rejected the livestock herding regulations and instead put forward again their traditional livestock herding system as an alternative management option, which is regulated by their traditional leaders. The Maasai have three areas where they can herd their livestock, these rotate year-round: *oserok*, *ngaroni* and *ronjoo*. *Oserok* is a place close to home where livestock herding is allowed year-round. In Enduimet, the *oseroks* of the different villages are within the WMA, but mostly in the village areas and less in the conservation area. When the dry season starts, the grass in the *oserok* diminishes and the traditional leaders can open the drought reserve a bit further away from home: the *ngaroni*. The *ngaroni* in Enduimet WMA, which is located in the conservation area and is shared by the different villages, is the area where the WMA board intended to restrict livestock herding. The time that the *ngaroni* is used is variable as it depends on the amount of rain. In a very dry year, the *ngaroni* can be used for approximately five months, in a very wet year for approximately three months. As droughts are becoming more frequent, the three months of livestock herding in the conservation area as proposed by the WMA board are not enough. Customarily, the traditional leaders decide on the opening and closing of the *ngaroni*. If the *ngaroni* does not contain enough grass, each individual can decide to migrate out of their immediate living area to the lands of another community: *ronjoo*. This means that they migrate out of Enduimet WMA. The traditional leaders of the other community then decide whether or not this individual is allowed to graze his livestock there. The community follows this system and does not feel that the WMA has authority over livestock herding in any area. Instead, they argue that the authority over livestock herding, both in the conservation and in the village area, resides with the traditional leaders: “Sometimes the rules [of the WMA board] undermine the Maasai but we follow the laws of the traditional leaders, it is good” (Focus group with senior men).

Although the community members in the studied villages are united in rejecting the livestock herding regulations and in their opinion on who should regulate livestock herding, they differ on other topics. In our analysis, we identified four subject positions that emerged in response to the proposed new livestock herding regulations. The first subject position was held by the largest group and was slightly sceptical about the WMA board’s understanding of the grass shortage and about the WMA itself. This group felt that overall the traditional system works well enough, and the cause of the grass shortage is neither an imbalance between the livestock population and the available livestock herding area, nor an irresponsible way

of using this space as the WMA board claimed. Instead they said that the only cause is a lack of rain which means that the grass cannot grow. Furthermore, they were indifferent about wildlife conservation; they have experienced many human-wildlife conflicts which were rarely settled with the promised compensation and they saw little value in the tourism revenues as they did not see direct benefits of those. This combination also made them sceptical about the WMA board. One participant of a focus group with senior men rhetorically asked: *“Will these solutions [for the grass shortage from the WMA board] help the wildlife or the people?”*

The second subject position supported conservation. They shared the view with the sceptical group that the cause of the grass shortage is a lack of rain, but they attributed a larger importance to conservation. This group spoke about the benefits of conservation. According to them, the tourism revenues help children to go to secondary school and are used to build communal buildings such as clinics and schools. Furthermore, this group felt that wildlife has an intrinsic value. Both this group and the sceptical group felt that wildlife could survive without grass in Enduimet – it can migrate to another area – grass is mostly important for livestock. Therefore, this group did not support the livestock herding regulations either.

A third subject position was hostile towards wildlife. This group felt that the cause of the grass shortage was twofold: it was due to a lack of rain and due to wildlife, which would empty the *ngaroni* before the Maasai were allowed to enter it by their traditional leaders. According to this group, this situation has been caused by growing numbers of wildlife since the establishment of the WMA. This group attributed low importance to conservation and felt angry about human-wildlife conflicts: *“It’s okay [for the WMA board] if a lion kills a goat, but if Maasai kill a lion it is not”* (Focus group with Moran). Furthermore, they saw no need to ensure grass for the wildlife: *“Pastoralists do not need wildlife, we do not like predators, but the WMA likes them and they should look after them.”* (Focus group with senior men).

Lastly, there is a fourth subject position that is held by educated community members who have had education at least up until secondary school. They supported the view of the WMA board that the major cause to the grass shortage is soil erosion due to overgrazing. While herding cattle, one person from this group stated: *“You know, cows in Africa cause soil erosion”* (Key informant) and another said: *“[If there was enough rain] the problem [of overgrazing] might remain hidden for longer but it would not be hidden forever”* (Key informant). Even though the educated group shared the WMA board’s view on the cause of the grass shortage, they did not agree with the livestock herding regulations. Like the rest of the community, they also preferred the traditional livestock herding system and felt that the authority over livestock herding should lie with the traditional leaders. Still, they said that livestock reduction would be good, but they did not feel that this should be implemented in the livestock herding system. Instead, they felt that each individual should have enough livestock to sustain his family and that people know this amount best for themselves. This group valued conservation

somewhat less than the WMA board but certainly more than the other groups. They felt that wildlife is important for tourism income and recognised the intrinsic value of wildlife. *“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.”* (Traditional leader). This group mostly wanted to ensure grass for their livestock, but also hoped that more grass would keep the wildlife in the WMA. *“Wildlife and cattle both need grass, the question is how to care for both within the WMA”* (Focus group with senior men).

In this section we have seen that in response to the new livestock herding regulations, four different subject positions emerged. These result in part from existing informal Maasai institutions around livestock and livestock herding which people have followed all their lives. Another important factor are the persistent human-wildlife conflicts. Many people have lost some of their livestock to predators and some of their crops to herbivorous wildlife. Furthermore, many informants knew someone who had been killed by an elephant or a predator. Although the WMA board has promised compensation for these conflicts, this has never materialised and the WMA board continues to conserve wildlife, which angers the community. The first three subject positions differ in their support for wildlife conservation vis-à-vis livestock grazing. These differences are related to how they have experienced human wildlife conflicts and suffered losses. They are also related to the extent to which they have experienced positive aspects of the WMA. In some villages, schools have been built and children from some families have received a grant from the WMA revenues to study at secondary school, but this has not happened to all families and villages. The fourth subject position has resulted partly from education which has taught them about the overgrazing-narrative that is also held by the WMA board and about the tourism revenues that wildlife brings to the community as a whole, and instilled them with a more positive view on wildlife. Another important factor here is that they also have an opportunity to make a livelihood that is not affected by wildlife. However, as many of them still (partly) have a Maasai livelihood, they still adhere to the informal Maasai institutions and to the traditional livestock herding system. Only this subject position can be considered compliant in the sense that its rationalities converge with those of the WMA board. For the other three, we see divergence between rationalities.

In the next section, we will discuss how these different subject positions can be understood as resulting from interactions between the WMA board and community members and particularly from the way in which the WMA employed technologies of participation and communication to support the design and implementation of the livestock herding regulations.

The employment of technologies and the creation of subjects

The successful implementation of the livestock herding regulations requires a convergence of rationalities between

the WMA board and the community. The WMA expected the emergence of subject positions that would accept that the cause of the grass shortage is soil erosion due to overgrazing, and that accept that the WMA board has authority over livestock herding. However, this is not what happened. The WMA board has been undertaking a number of activities to accomplish the desired convergence of rationalities and to create compliant subjects. Firstly, they initiated information campaigns to inform the local community: *“At first it will only be noise in people’s ears, but over time people will start to hear the song and accept it.”* (Board member). Such campaigns are frequently employed as a technology of disciplinary governmentality and they also rely on truth governmentality, in our case the scientific authority of the over-grazing narrative. These campaigns have been proven to be effective in the case of Enduimet WMA as is evidenced by the emergence of the fourth, educated subject position. However, only a small part of the community has had such a level of education and this knowledge does not spread easily in a community that depends mostly on livestock. Furthermore, the WMA board did not have the funds to provide information to all other community members. Instead, the WMA board has been trying to explain the traditional and local government leaders about soil erosion, with the hope that they would spread the knowledge about soil erosion among the other community members. However, this approach has not yet worked to influence the views of the traditional and local government leaders, let alone those of the other community members.

Secondly, in the spirit of sovereign governmentality, the WMA board said that they aim to use their authority by enforcing the livestock herding regulations once they are formally approved. Transgressors could be fined or even displaced from the conservation area. The expectation was that the threat of punishment would shape the behaviour of people such that they would follow the livestock herding regulations and, in this way, make the community internalise that the WMA board has authority over livestock herding in the conservation area. However, this is unlikely to succeed; the VGSs are expected to do the actual enforcement but are they also part of the community and some VGSs already stated that they do not want to enforce the livestock herding regulations: *“I cannot enforce these regulations, I am a pastoralist myself”* (VGS).

Thus, as these two examples show, the WMA board has not been able, and will continue to experience difficulties in their attempt to accomplish a convergence of rationalities and create compliant subject positions. The examples also demonstrate the importance of a practice-based perspective to understand how the responses of local communities are situated in the context of Maasai culture, and especially the longstanding authority of traditional leaders over livestock herding management. Many people expressed that they intend to keep herding their livestock the way they have always done, following the traditional livestock herding system. While some of the higher educated community members may decide to voluntarily reduce their livestock, they are unlikely to persuade the other community members. Altogether, the formal prescriptions

articulated in the livestock herding regulations are unlikely to be followed by the community and the on-the-ground implementation of the livestock herding regulations is likely to be thwarted.

Yet, the community is unlikely to formally oppose the new regulations. This has to be understood in light of the participatory process involved in the community-based decision-making. Although formally, 75% of community members have to approve the RZMP before it is implemented, the community has no clear understanding of how they can influence the decision-making processes. Moreover, the WMA board has said that it does not have the funds to inform the community on how to participate. The board feels that they represent the best interests of the community and thus additional participation to achieve plans that the whole community agrees with is not valued highly: *“We look for a bright future, but we do not expect a 100% acceptance as there are differences in mind-set.”* (Board member). Therefore, despite it being a central principle of CBNRM, the actual scope for meaningful participation is limited and the board does not feel that they have to be accountable to the community. This lack of possibilities for meaningful participation and discussion about the livestock herding regulations with the WMA board, together with the board’s disregard for their opinions has led to discontent about the WMA among the community members. Thus, even though Enduimet WMA claims to apply CBNRM, and its institutions (the WMA board and the AA) are made up of or elected by communities, there is a lack of meaningful connection between governing bodies and their constituencies.

This is further compounded by human-wildlife conflicts. Although people valued the WMA for its revenues, they also experienced more human-wildlife conflicts due to the protection that the WMA gives to the wildlife. The WMA board intended to govern these conflicts by means of compensation for wildlife induced damages. Fitting with neoliberal governmentality, they used the idea of compensation payments to incentivise the community to accept conservation. However, actual compensation has not happened and this heightened frustration about the conflicts: *“[After a human-wildlife conflict] we call the VGSs, they take GPS location and pictures but we never get compensation”* (Focus group with men). Consequently, people did not feel as if they were taken seriously and many people expressed that the WMA board seemed much more concerned about the well-being of the wildlife than about that of the people.

We have seen in this section that the attempts of the WMA board to create compliant subjects in fact resulted in the emergence of resistant subject positions due to ineffective strategies, a lack of participation, and broken promises. When the livestock herding regulations are enforced, these resistant subject positions are likely to be enacted in practice. The introduction of controversial livestock herding regulations resulted in hitherto dormant opinions on wildlife being re-voiced. It is likely that if the livestock herding regulations were to be enforced by denying people access to the conservation area or by fining them, the community would

not just ignore the livestock herding regulations. Our data suggests that unintended consequences would likely emerge, for instance by defying the well-established and accepted institution of the WMA which prohibits the killing of wildlife: *“If they [the WMA board] do not listen, maybe we will kill some elephants”* (Focus group with women).

CONCLUSION

This case study of Enduimet WMA shows that the disagreement about the livestock herding regulations has resulted in controversy and decreased the legitimacy of the WMA as seen by the local community. As discussed in the previous sections, these problems emerged due to diverging rationalities about causes and solutions of the grass shortage and about who should be the deciding authority. We have also shown that the technologies employed by the WMA board to accomplish a convergence of rationalities were not effective. The WMA board's overall approach to community participation aggravated these problems. Furthermore, while failed disciplinary and sovereign governmentality strategies mostly resulted in unengaged subject positions, the broken promises for compensation for damages induced by human wildlife conflict led to the emergence of resistant subject positions. These outcomes are particularly painful in CBNRM interventions since they claim to be participatory and aim at legitimacy and social inclusion. As such, our analysis contributes to wide array of studies that have addressed the different causes of exclusion and disengagement in participation (Behagel and van der Arend 2013; Nandigama 2013; Ayana et al. 2015; Mooij et al. 2019). Our analysis confirms key problems identified by these studies related to a disregard for the existing cultural and political context and informal institutions in which the intervention was to be embedded. Moreover, since communities are not homogenous (Ojha et al. 2016; Skutsch and Turnhout 2018), a range of different rationalities and non-compliant subject positions developed.

Although Enduimet WMA is managed by community members – which is often seen as an asset in CBNRM (Adams and Hulme 2001; Berkes 2004; Larson et al. 2016) – the daily context of those who are involved in the actual management and those who are not, differed considerably in our case. For one, it must be recognised that the members of the WMA board are not at all involved in livestock keeping anymore, while the community members, including the higher educated community members, still are. Because of this, the WMA board members risk designing regulations that do not fit existing practices. This risk is further compounded by the pressure that the board members experience from the upward accountability towards the government and donors, which is larger than the pressure that they experience from downward accountability towards the community. This was an important reason for introducing new livestock herding regulations over the traditional livestock herding system. Thus, although this is not a case of ‘shadow CBNRM’ where decentralisation is only present on paper and where

community engagement is non-existent (Ribot et al. 2006), there is still a disconnect between those involved in the different CBNRM institutions of Enduimet WMA and those who are not. Resolving this situation will require that community members more actively demand a voice in the management. Although there are formal institutions which provide scope for such stronger participation, the actual use of such spaces in practice is informed by informal institutions (Nandigama 2013). In our case, we have seen that so far, community members have not taken up this space nor opposed the regulations formally.

The various differences in rationalities and subjectivities of all involved actors, the disconnections between CBNRM institutions and communities, and the role of employed technologies of communication, participation, and compensation are all relevant to understand how CBNRM interventions can have unpredictable and unintended consequences in practice. Our use of the concept of governmentality provided insight into how the WMA board intended to achieve a convergence of rationalities, and into the importance of technologies in this process (Dean 2010). Yet, by drawing on practice theory, we were also able to show how responses to the intervention, rationalities and subject positions are situated in practice and result not just from the intervention but also from existing social and cultural context and informal institutions (Arts et al. 2014; Behagel et al. 2019; Mooij et al. 2019).

This article's key contribution lies in highlighting the role of dynamic interactions between actors in shaping rationalities, subject positions and outcomes of CBNRM. This is vitally important for understanding how and why CBNRM regularly fails, and for recognising the limitations of simple solutions. As many authors have argued, there is no one-size-fits-all way of setting up CBNRM projects (Dressler et al. 2010; Gavin et al. 2018). Ensuring an effective and legitimate CBNRM arrangement is not just a matter of simply adopting and implementing new rules and procedures for community participation. Even in projects that are ostensibly run by a community through direct representation, such as the case documented here, social differentiation, and ultimately social exclusion, occurs. Even more so, the label of CBNRM can even serve to either hide or normalise this social exclusion (Cooke and Kothari 2001; Turnhout et al. 2010). In saying this, we do not negate the importance of participation or dismiss the importance and positive outcomes of CBNRM. Participation of all relevant actors is a crucial condition for legitimate conservation policy and practice. Yet, the existence of rules and mechanisms does not guarantee that meaningful engagement will take place. Ensuring this is much more difficult to realise in practice. As a first step, our case has shown the value of eliciting existing rationalities. These include rationalities related to what is happening in the area - in our case the physical causes of the grass shortage - as well as rationalities related to the responsibilities and capabilities of different involved actors, and rationalities related to the functions and expected outcomes of participation. This can be the start of openly discussing potential tensions and conflicts and

identifying potential synergies. The point of such meaningful engagement is not to win arguments and convince opponents, but to exchange views to allow mutual understanding of other rationalities and the consequent possibility to forge a common ground.

As a final point, we recognise that uneven power relations inevitably influence these processes. Different actors possess different resources, knowledge and skills that will affect their capacity for meaningful engagement. However, we also argue that this does not automatically delegitimise participation (Armitage et al. 2008; Armitage et al. 2011). Experiences with participation in science and technology, as well as adaptive co-management, have shown that legitimate outcomes can be created if processes are sufficiently symmetrical and sensitive to power and inequality (Berkes 2009; Tsouvalis and Waterton 2012; Chilvers and Kearnes 2016). Our approach to identify these rationalities as they emerge in the context of participation can provide such a route, and offers a basis to openly discuss differences and conflicts, and facilitate convergence.

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