

We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

6,900

Open access books available

186,000

International authors and editors

200M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com



Power Struggles in the Management of Wildlife Resources: The Case of Burunge Wildlife Management Area, Tanzania

Rose P. Kicheleri, Thorsten Treue,
George C. Kajembe, Felister M. Mombo and
Martin R. Nielsen

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.79521>

Abstract

Through a cross-sectional research design, this study examined power struggles in Burunge Wildlife Management Area (WMA) in Tanzania. Four out of ten villages comprising the WMA were purposively selected, and data were collected via focus group discussions, key informant interviews, questionnaires to household heads, and a literature review. Results showed that the central government, investors and non-government organisations held institutional and strategic powers, while the democratically elected Village Councils held structural powers and lost most of their pre-WMA institutional powers to a legally required new institution, the Authorised Association. Therefore, Village Councils lost influence on strategic, institutional and management decisions pertinent to the WMA and their constituencies' livelihoods. Accordingly, Burunge WMA de-democratised wildlife management by eroding the relevance of Village Councils to their constituencies. The study also found power struggles over revenues, land management and access to resources among the stakeholders, mainly due to a divergence of interests. However, there was no conflict management mechanism in place. Hence, we recommend that the institutional powers to establish, govern and dissolve WMAs should go back to Village Councils. The purpose is to establish economic incentive structures that promote (i) wildlife conservation, (ii) an equitable distribution of associated costs and benefits between Village Councils forming WMAs and (iii) an equitable distribution of costs and benefits between WMAs and higher levels of government as well as international conservation NGOs.

Keywords: wildlife management areas, power struggles, actors, resource conflicts

1. Introduction

'Power' in the context of natural resource management has no single universally accepted definition. For instance, some scholars characterise power as the relationship between people [1], while others relate it to coercion, constraint, consent, social relationship and interaction [2]. However, power occurs in various forms including structural, strategic and institutional [3–5]. Structural power, or domination, is asymmetrical, hierarchical, hard to challenge and difficult to reverse [3]. The subordinate actors in structural power arrangements have little room for manoeuvre because their margin of liberty is extremely limited [5]. Strategic power involves structuring possible fields of action of others, and it is expressed through daily interactions between individuals and groups [3]. Accordingly, strategic power has many expressions, including economic ability, rational and ideological argumentation or manipulation [4]. Officialised institutional power is systematised, regulated and involves mandates that are legally defined [3, 5].

Furthermore, power is often exercised through multiple, intertwined institutions¹ following what is socially possible or acceptable [5]. Power analysis must involve observation of actors in decision-making [2, 3, 5, 6]. Therefore, stakeholders' power can be understood as the extent to which they can persuade or coerce others to accept decisions and follow certain courses of action [7, 8]. This may also involve actors resisting the management actions over resources. Counterpower such as foot-dragging occurs in situations where the less powerful try to express their concerns. For example, Scott [9] revealed that in developing countries, communities rarely choose open confrontations against onerous new laws but instead resort to more subtle actions of everyday resistance including foot-dragging and hidden non-compliance, that is, by using the weapons of the weak. When this happens, it is usually a sign of great desperation [9].

In Tanzania, power struggles among actors over decision-making related to wildlife management have lasted for decades [10]. For example, the lucrative nature of wildlife resources has created strong incentives and vested interests for the central government and the associated bureaucracy to maintain control over the resource [11]. As a result, institutional reforms or legal adjustments officially intended to enhance local communities' rights to benefit from wildlife have often been circumscribed to reassert the state's ultimate power in matters of wildlife governance [8]. Over time, these reforms and legislative adjustments have produced asymmetrical power relations in the way decisions are made about wildlife resources and how benefits from wildlife are shared among the actors (*ibid.*).

The United Republic of Tanzania (URT) has decentralised wildlife management through the introduction of Wildlife Management Areas (WMAs) [12]. The Wildlife Policy of Tanzania defines WMAs as a new category of protected areas for community-based wildlife management. WMAs can be established when a group of Village Councils agree to set aside adjacent parts of their respective village lands to form a WMA [12]. However, the process that leads to a fully functioning WMA is long and bureaucratic. It begins with the formation of a community-based

¹For the purpose of this study, institutions are defined as rules including policies, legislations, regulations, guidelines, bylaws, constitution and other long established patterns of conduct or customs through which people interact with one another.

organisation among the involved villages, which among others must prepare a draft so-named Management Zone Plan for the WMA area. When the Director of the Wildlife Division endorses the Management Zone Plan, the community-based organisation is granted wildlife user rights and becomes a legally recognised institution, called an Authorised Association², which is authorised to manage its WMA [13]. With decentralisation by devolution as envisioned in the 1998 Wildlife Policy [12], the Authorised Association is expected to be accountable to the local communities. However, empirical evidence has revealed that Authorised Associations are more accountable to the central government ([14, 15], see also below). This contradicts Ribot's definition of devolution, which 'involves transfers of power to elected local authorities and enables local people to make decisions for themselves through their representative local authorities' [9, 16].

Before the introduction of WMAs, other functionally protected areas included National Parks and Game Reserves where no human settlement is allowed and Game Controlled Areas as well as the Ngorongoro Conservation Area—where settlement is allowed albeit under tight regulation [17]. National parks are managed by the Tanzania National Park Authority (TANAPA); game reserves and game controlled areas are managed by the Tanzania Wildlife Management Authority (TAWA); and WMAs are managed by communities through Authorised Associations, which, except for the secretary and trustee of each Authorised Association, are democratically elected community-based organisations. Therefore, WMAs are a form of common property regimes (CPR), whereby communities are expected to sustainably manage and benefit from wildlife [18, 19]. However, decentralisation usually threatens some actors' powers and interests. As a result, official power transfers from the central government to local actors are often resisted overtly and covertly by different actors [20].

Currently, Tanzania has 38 WMAs at different stages of development [21]. Burunge WMA was among the first nine pilot WMAs in Tanzania. It was launched in 2003 and granted official status in 2006 [22, 23]. Burunge WMA has great significance to Tanzania's protected area network given its function as a wildlife corridor linking Tarangire National Park, Lake Manyara National Park and Ngorongoro Conservation Area [22, 23]. The importance of Burunge WMA has attracted numerous actors to participate in its management. Divergent roles, interests and expectations of these actors are, however, major causes of power struggles, which unfortunately is not unique. For example, Shilereyo [24] reported a situation where local people had no power to influence management decisions in a WMA, while Manyika et al. [25] reported power struggles over forest governance. Also, Bluwstein et al. [14] showed how the process of rule-making and rule-changing in WMAs generated power struggles. However, analyses addressing issues of interests, power disparity and power struggles among the actors in community-based conservation are relatively few. Thus, our understanding of the outcomes including the management of such power struggles is inadequate.

This study examines power struggles among the key actors in Burunge WMA, specifically by attempting to answer the following questions: who are the actors and what are their roles and interests in the management of Burunge WMA? What powers (structural, strategic and institutional) do these actors possess and how do they affect the management of the WMA?

²Authorised Association means 'a community based organisation, whose primary objective is to conserve wildlife resources for the benefit of local community members ordinarily residing in that particular area' (URT, 2012:5).

How do these powers determine the outcome of struggles among the actors? And how are these power struggle conflicts managed?

1.1. Theoretical framework

Drawing on Raik et al. [2], Nuijten [3], Kajembe et al. [5] and Manyika et al. [25], this study focuses on identifying actors including their roles, interests and powers to understand power struggles and their outcomes in natural resource governance. The emergence of conflicts is an important indicator of power struggles among actors [2, 25]. In this study, power means the relationship among the actors, while power struggle denotes a negative situation in the course of decision-making where certain actors at the expense of other legitimate actors push forward their interests in the management of WMAs. Also, the study draws on common property theory dealing with the governance of common pool resources. The theory is expounded by the principles of subtractability/rivalry (that one person's resource use diminishes what is available for others) and excludability (that people are divided into 'insiders' who have rights to a defined resource and 'outsiders' who do not have rights) [19, 26].

2. Methodology

2.1. Description of the study area

The study was carried out in Burunge WMA located in Babati District in Northern Tanzania (**Figure 1**). The H-shaped WMA was established in 2003 and covers about 283 km². It is formed among 10 villages, namely Mwada, Sangaiwe, Ngoley, Vilima Vitatu, Kakoi, Olasit, Manyara, Magara, Maweni and Minjingu. The residents in these villages practice livestock keeping and small-scale farming as their main economic activities. Their main food crops are maize, beans, bananas, paddy rice, potatoes and millets. Sesame is the major cash crop. The area experiences a bimodal rainfall: short rains from May to June and long rains between November and January. The annual rainfall ranges between 400 and 500 mm, while the temperature ranges between 18 and 33°C [27, 28].

2.2. Research design and data collection methods

The research was carried out between 2014 and 2016 using a cross-sectional design. Four villages, Mwada, Vilima Vitatu, Minjingu and Kakoi, were purposely selected for this study. The main criterion for selection of the study villages was residents' level of acceptance of Burunge WMA and associated arrangements of access to resources (i.e., satisfied or dissatisfied). For example, preliminary survey results showed that Mwada villagers were fairly satisfied with the WMA, while villagers in Minjingu, Vilima Vitatu and Kakoi (a relatively newly formed village separated from Minjingu) were dissatisfied and wanted to withdraw from the WMA.

For triangulation purposes, the study applied several methods of data collection including focus group discussions, key informant interviews and a questionnaire. Focus group discussions were conducted with Village Council members, with youths, women and senior men from each village. Selection for the focus group discussions was conducted so that each group had

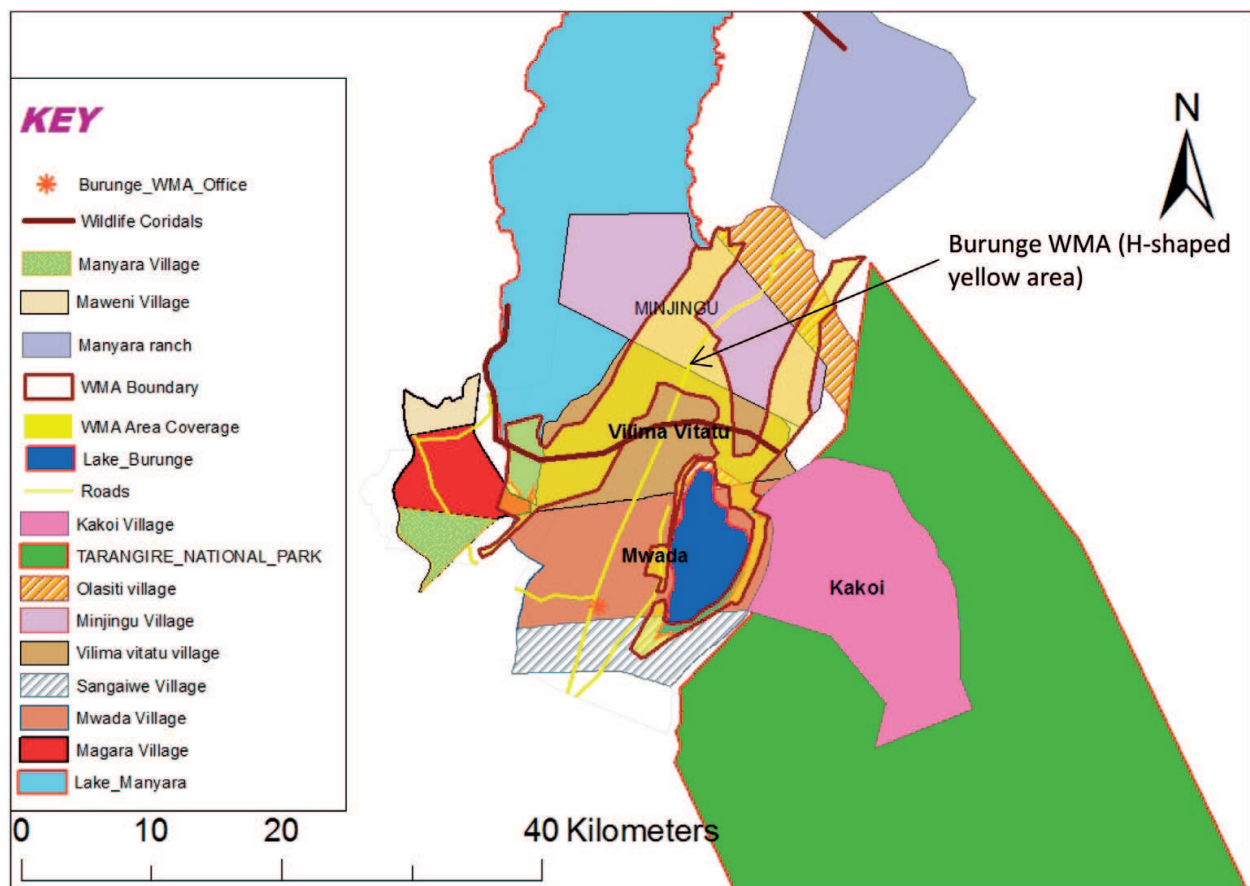


Figure 1. Map of the study area. Source: [15].

different interests, positions and roles in the management of natural resources [29]. Key informant interviews were conducted up to the point at which no new information was obtained, that is, the data saturation point [30]. Informants involved were respondents who had specific knowledge about Burunge WMA including the village chairpersons, senior men and women, the Burunge Authorised Association and Babati District and Wildlife Division officials.

Focus group discussions and key informant interviews sought to identify powers held by the key actors and uncover emerging struggles originating from these power differences. The powers of different actors in the WMA were identified through a stakeholder analysis that uncovered stakeholders with vested interests in the current situation and stakeholders who were likely to be affected, either positively or negatively, in case conditions change or remain the same. The questionnaire survey involved respondents drawn randomly from the village registers ($n = 140$ households in total) [31]. The questionnaire had both closed-ended and open-ended questions. Along with key informant interviews and focus group discussions, the questionnaire survey was used to assess the existing resource use conflicts. Secondary data, mainly law texts that related to actors, powers of actors, power struggles and conflicts were reviewed.

2.3. Data analysis

Content analysis was used to analyse data related to the institutional and different categories of power possessed by different actors. In this case, all qualitative data from focus group

discussions, the questionnaire and key informant interviews were categorised into related themes [32]. Underlying themes in the categories of words were identified, explained, clarified and interpreted [33].

3. Results and discussion

3.1. Key actors in the management of the WMA

The study revealed various actors with different roles and interests in the WMA (Table 1). The interests were both overlapping and divergent. However, all actors supported the objective of wildlife conservation. The local communities viewed conservation as an opportunity to improve their livelihoods, while the central government, through the Wildlife Division, enjoyed the expansion of conservation territory as well as improved revenue collection

Actor	Roles	Interests
Village Assembly	Collective decision-making such as approving the size of land to be allocated for WMA establishment.	Conservation of wildlife; accruing benefits from the WMA and improvement of livelihoods.
Village Councils	Representing villagers in all matters about the villagers’ well-being.	Protecting their fellow villagers’ rights and promoting their interests.
Authorised Association	Managing the WMA on behalf of the villagers. Act as a power broker between the villagers and the central government agencies and local government.	Ensuring the conservation of wildlife and that associated benefits are realised at WMA level.
District Council	Oversee management of the WMA.	Making sure wildlife is conserved. Generating benefits from the WMA.
Wildlife Division	Making rules for WMA management.	Increasing the area of protected landscapes including wildlife corridors where most WMAs are located. Collecting revenues from tourism investments in the WMA.
Non-Governmental Organisations (World Wildlife Fund for Nature, African Wildlife Foundation)	Facilitating WMA establishment.	Conserving wildlife and ensuring the increase of protected landscapes including wildlife corridors between otherwise protected areas.
Investors (Maramboi and Burunge tented camps)	Entering into contracts with the Authorised Association to undertake business ventures in the gazetted WMA.	Generating profits through wildlife conservation.
Tanzania National Parks Authority (TANAPA)	Conserving Wildlife	Ensuring that Burunge WMA acts as a buffer zone and corridor.

Source: field data.

Table 1. Actors, their roles and interests in Burunge WMA.

because the Wildlife Division, by law, has substituted the Village Councils' role as a revenue collector from tourism businesses within the WMA (see below).

The Wildlife Division has three major roles: policy formulation, regulation and coordination. Until recently when Tanzania Wildlife Management Authority was established by government order, the Wildlife Division was responsible for overseeing the management of wildlife outside national parks and the Ngorongoro Conservation Area. However, since the formation of WMAs was based on the promise of enabling people to manage wildlife on their lands and benefit from this resource, the role of revenue collection assumed by the Wildlife Division contradicted expectations of the local communities, whom government officials during the sensitization process verbally promised full control over the WMA and a say over the revenues and other benefits. By assuming the role of revenue collection, our respondents felt that the Wildlife Division had grabbed an intended power of the Authorised Association—defined in the WMA Regulations as 'a community-based organisation, whose primary objective is to conserve wildlife resources for the benefit of local community members ordinarily residing in that particular area' [13].

Besides its conservation role, the Authorised Association is intended to act as a power broker between the local communities and the central/local government agencies. However, the Authorised Association was found mostly to represent the interests of the central government. These findings are similar to another study in the area by Kicheleri et al. [15] where the Authorised Association was found to be accountable to the central government, quite in contradiction to the WMA Regulations, which require Authorised Associations to be accountable to the local communities. Accordingly, the interests of the central government take precedence over those of the local communities. The Tanzania National Park Authority's (TANAPA's) interests are that Burunge WMA serves as a buffer zone to and a corridor between 'its' national parks.

Kajembe et al. [5] contend that in the management of natural resources, triangles of actors including state agencies, NGOs (Non-Governmental Organisations) and local communities are created where power struggles take place. This happened in this case as well where procedural flaws have clouded the Burunge WMA establishment process during which some actors pushed forward their interests without due regard to other actors' interests or formal democratic procedures. For instance, the conflicting interests and power differences among communities, donors, the central government and the African Wildlife Foundation (AWF) negatively affected the AWF's work with communities in Burunge WMA [15, 34]. Instead of acting as a power broker between the central government and local communities, the AWF found itself in conflict with the local communities because it sided with representatives of the Wildlife Division who allegedly manipulated and misled Village Councils to push for their acceptance of the WMA [15]. Accordingly, proper identification of actors, their roles and interests from the very beginning of a conservation-through-decentralisation project is quite vital. The reason being that this allows other actors and stakeholders to assess the likely consequences (for them) when the kind of decentralisation they are asked to support entails a transfer of specific bundles of powers from the centre to particular institutions that are more or less downwardly accountable [16].

3.2. Powers of key actors in Burunge WMA

From these results, the key actors, that is, Village Councils, the Authorised Association, District and Wildlife Division officials, NGOs and TANAPA, and investors exercised different types of powers (**Table 2**). Essentially, there were three types of powers possessed by these actors. The Village Councils had structural power, while investors possessed strategic power. The Authorised Association, District Council, TANAPA, NGOs and the Wildlife Division had both institutional and strategic powers. The structural power relates to cultural or social positions such as being an elder in the society, while strategic power relates to level of education and/or wealth. The institutional power relates to positions in the government, organisations or associations [2–4, 6].

The communities that collectively make decisions at the Village Assemblies are represented by the Village Councils, that is, the democratically elected Village Governments. Therefore, the structural power possessed by the Village Councils is in line with the findings of Kajembe et al. [5] who assert that structural power is widespread in traditional societies. This is because structural power is associated with social position such as being a household, clan or tribal head. It is further associated with a cultural position such as being a traditional healer in a village [6]. However, in this context, the village’s liberty to influence the WMA management decisions was limited. Structural power cannot override strategic or institutional powers unless full discretionary powers are devolved [18]. Therefore, to influence multiple levels of governance, structural power needs the backing and support of institutional or strategic powers. Unfortunately, the exact opposite tends to happen, which increasingly restricts those holding structural powers to realms of cultural and religious rather than socio-economic significance.

With democratic decentralisation, it was expected that institutional power over decision-making in the WMAs would be shifted to the Village Councils whose members are democratically elected and thus downwardly accountable to the local communities. However, contrary to this expectation, the Authorised Association, District Council and Wildlife Division have the institutional power to make most decisions regarding the WMA management at the village level. These findings suggest that the rights of local communities to exercise institutional power and manage the WMA were undermined. Thus, a Village Council’s ability to influence WMA management

Actor	Type of power
Village Councils	Structural and institutional
Investors	Strategic
Authorised Association	Institutional/governmental, strategic
District Council	Institutional/governmental, strategic
TANAPA	Institutional/governmental, strategic
NGOs	Institutional/governmental, strategic
Wildlife Division	Institutional/governmental, strategic

Source: field data.

Table 2. Actors’ powers to influence Burunge WMA management decisions.

decisions was limited by the institutional setup of the WMA. This may be associated with the lack of enforcement of rules that are centrally enacted on the ground together with central government interests to re-centralise (while decentralising) WMA management. In support of this argument, Kicheleri et al. [15] found that WMA related meetings were not conducted in the villages to communicate WMA management performance and progress.

The WMA Regulations Section 17 describes the responsibilities of the Village Council in the management of Wildlife Management Areas [13]. Section 17 (g) states that the Village Council shall 'monitor the activities of the Authorised Association and report to the Village Assembly and District Council'. Section 17 (i) states that the Village Council shall 'ensure that the Authorised Association implements sectoral policies while entering into agreements on the management of a Wildlife Management Area'. Contrary to these statements, however, the WMA Regulations' Section 24 excludes Village Councils as members of the District Natural Resources Advisory Board (DNRAB) [13]. We argue that excluding Village Councils from this Board attenuates their ability to influence Authorised Associations' governance of WMAs.

Investors hold strategic power, which gives them access to investment opportunities in the WMA. Mbeyale [4] identifies wealth among the sources of strategic power, whereas Kelly [35] sees the market value of tourism business as high and, therefore, a key area of investment by actors with strategic power. Essentially, tourism investors want to stay in the market; hence, they employ their strategic powers to stay in business and pay taxes to the Wildlife Division rather than to Village Governments as they did before the WMA was established. Hence, tourism investors often find themselves hijacked in a struggle over tourism-based revenues between the central government and Village Councils.

The NGOs, namely the AWF and the World Wide Fund (WWF) for nature both held institutional as well as strategic powers. In the establishment of WMAs, NGOs are claimed to have used their position to manipulate local communities to accept WMAs [15]. Comparable observations are apparent for REDD+ projects in Tanzania where financial resources were used to earn NGOs higher bargaining power [25]. Similarly, instead of facilitating the process of establishing Burunge WMA through meaningful public participation, the AWF alienated local communities by favouring interests of the central government and donors in expanding the area for nature conservation [34].

3.3. Power struggles in Burunge WMA

3.3.1. Struggles over revenues from the WMA investments

In the WMA, benefits stem from non-consumptive utilisation such as tourist lodges, photographic tourism and consumptive tourist hunting. When Burunge WMA initiated operations in 2006, the Authorised Association collected and distributed non-consumptive utilisation revenues from tourist investors among Village Councils. That practice changed in 2012 when the Wildlife Division took over the role as revenue collector from the Authorised Association. This change emerged following the release of the Non-Consumptive Wildlife Utilisation Regulations of 2008 (revised 2016) in which Section 16 (3) states that 'the Director shall collect the fees prescribed under these Regulations on behalf of the Authorised Association' [36].

According to one of the Wildlife Division officials, this change was instituted after learning that the Authorised Associations had inadequate capacity to collect the revenues. Allegedly, this deficiency resulted in minimal revenue collection from investors. These observations are in line with those of Ribot et al. [20] on how governments justify re-centralisation control over revenue streams from community-based programmes. Whether the alleged poor capacity of the Authorised Association to collect revenue is true or not, an effective community-based programme must include fiscal devolution, otherwise, the discretionary powers of locally elected leaders become irrelevant to their constituency's livelihoods [16]. The changes in revenue collection also provoked complaints from the Village Councils who claimed that their share of revenue had decreased, which indeed was the case from 2011/12 to 2012/13, c.f. **Table 3**.

However, the most important messages from and related to **Table 3** are that: (i) it was difficult to get access to the data, which is held at the Authorised Association's office, (ii) in most years, the Authorised Association seemed to accumulate substantially larger amounts of cash from the WMA than what any Village Council received and (iii) during Burunge WMA's 12-year history, the Authorised Association appears to have accumulated a surplus of more than TZS 833 million or on average just above TZS 69 million per year, which is more than three times the average annual amount received by the individual villages. Accordingly, the first author attempted to access the Authorised Association's audited accounts to verify its bank balance, but that was promptly stopped. Her subsequent requests to access the books of the Authorised Association were categorically denied.

After 2012/13, when the central government had re-centralised WMA revenue collection, official revenues going to the Village Councils picked up. Although positive in a narrow sense, this fiscal re-centralisation is problematic, c.f. above. Further, our respondents generally agreed that the Authorised Association's capacity to govern the WMA and associated revenue flows needs improvement as does public access to scrutinise the Authorised Association's accounts.

The re-centralisation of WMA revenue governance is evident in the WMA Regulations and associated legislation, which specify how revenues from a WMA must be shared. The Non-Consumptive Wildlife Utilisation Regulations Section 19 (b) stipulates a sharing mechanism of revenues from the non-consumptive operations in WMAs, stating that '5% shall be directed to the District Council, 25% to the Director of Wildlife and 70% to Authorised Associations' [36]. Non-consumptive utilisation includes game viewing and other ecotourism investments in WMAs including tourist lodges and hotels. Likewise, the WMA Regulations Section 48 (8) states that 'the income generated from resident hunting in WMAs shall be shared as follows: (a) Authorised Association 40%; (b) responsible District Council 60%' [13, 31]. Moreover, the Twelfth Schedule of the WMA Regulations provides a table showing how benefits from tourist hunting in the WMAs should be shared. The benefits are shared between the Tanzania Wildlife Protection Fund (TWPF) unit in the Wildlife Division, the Wildlife Management Area (WMA), the District Council (DC) and the Treasury (TR) as shown in **Table 4**.

Furthermore, the 2012 WMA Regulations Section 17 (e) [13] authorises the central government to determine the level of benefits local communities get from WMAs. The Regulations state that Village Councils will be responsible for 'approving the mechanism for benefit sharing among the villages forming the Wildlife Management Area in accordance with guidelines

Fiscal Year	WMA gross revenue ¹	Village Councils' share ²	WMA expenses	Authorised Association's surplus	Each Village Council	Number of villages ³
2006/7	37,496,988	18,748,494	8,296,411	10,452,083	2,083,166	9
2007/8	75,256,890	37,628,445	24,243,022	13,385,423	4,703,556	8
2008/9	64,595,376	32,297,688	34,211,010	-1,913,322	3,588,632	9
2009/10	227,618,815	113,809,407	101,338,183	12,471,224	11,380,941	10
2010/11	391,459,764	195,729,882	150,325,192	45,404,690	19,572,988	10
2011/12	473,738,860	236,869,429	175,940,789	60,928,640	26,318,825	9
2012/13	275,430,040	137,715,020	163,041,379	-25,326,359	13,771,502	10
2013/14	412,593,089	206,296,544	175,515,558	30,780,987	20,629,654	10
2014/15	820,954,000	410,472,500	290,810,232	119,662,268	41,047,250	10
2015/16	795,272,230	397,636,115	383,923,203	13,712,912	39,763,611	10
2016/17	1,268,810,655	634,405,327	460,869,316	173,536,011	63,440,533	10
2017/18	2,071,861,968	1,035,930,984	655,882,294	380,048,690	103,593,098	10
Sum	6,915,088,674	3,457,539,835	2,624,396,589	833,143,246		
Average per year				69,428,604	29,157,813	

¹After the deduction of shares to the Tanzania Wildlife Protection Fund, the District Council and the Treasury (see below).

²Village Councils are entitled to 50% of the WMA gross revenue as per legal regulation.

³In 2006/7–2008/9, the total number of villages was nine as Kakoi village was formed in 2009/10. As part of Minjingu village's struggle to pull out of Burunge WMA, its share in 2007/8 and 2011/12 was used by the Authorised Association to fund a secondary school project.

Source: field data.

Table 3. Burunge WMA revenue collection and distribution (current TZS).

Fee	TWPF	WMA	DC	TR
Block fee	25%	75%	0	0
Game fee	25%	45%	15%	15%
Conservation fee	25%	45%	0	30%
Observers fee	25%	45%	0	30%
Permit fee	25%	15%	0	60%

Source: [13]

Table 4. Distribution of income generated from tourist hunting activities in a WMA.

issued by the Government from time to time' [12, 13]. Section 66 (1 and 2) further elaborates on benefit sharing mechanisms at the Authorised Association and village level: '(1) benefit-sharing in Wildlife Management Areas shall comply with circulars issued by the government from time to time. (2) Authorised Association shall ensure that: (a) at least 15% of its annual gross revenue is re-invested for resource development; (b) at least 50% of its annual gross revenue is directed to villages forming part of the Wildlife Management Area and (c) at least 25% of its annual gross revenue is used to strengthen the Authorised Association'. This distribution leaves out 10% of the revenues. Interviews with the Authorised Association officials revealed that 50% of the gross revenues stay with the Authorised Association, while 50% goes to the villages forming the WMA, c.f. **Table 3**. According to local Wildlife Division officials, the missing 10% from the WMA Regulations is an error in the Regulations and that revenues should be divided equally between the WMA forming Village Councils and the Authorised Association.

Villagers in Burunge WMA knew that their Village Councils' share of the WMA revenue originated from their land. However, they did not know how much this amounted to in percentage of the total WMA revenue, and they were unaware that all Village Councils got equal shares irrespective of the fact that each village had contributed different areas of land to the WMA and some hosted tourist lodges or camps while others did not. As noted above, the group of Village Councils do get their minimum share, that is, 50% of the WMA revenues. However, this share is entirely top-down defined and then imposed on Village Councils who did not seem to have foreseen this loss of authority over village land revenues when they joined Burunge WMA.

Power struggles over revenue-sharing were also observed between the Village Councils and the Authorised Association. For example, Village Councils complained about the 50-50 share of revenues between them and the Authorised Association. Further, Village Council members argued that regardless of the amount received by the Authorised Association they did not see the necessity or legitimacy of dividing those revenues equally between them. For example, Village Council members in Minjingu and Vilima Vitatu villages claimed that since they had supplied more resources and land to the WMA, other villages did not deserve equally high shares of the WMA revenues. The size of land contributed to the WMA was 3746 ha from Minjingu, 12,829 ha from Vilima Vitatu, 3039 ha from Mwada, 2445 ha from Sangaiwe and 2257 ha from Magara [27, 28].

Dissatisfaction over the rule specifying that revenues must be divided into arithmetically equal shares among the participating villages figures among the reasons why Minjingu village wants

to withdraw from the WMA. Before the formation of Burunge WMA, Minjingu village had signed a contract with the investor who operates Maramboi Tented Camp on their village land. The investor started operations in September 2006, and in 2008, Minjingu village was forced to share that revenue with the other villages. **Table 5** shows the revenues received by Minjingu village from Maramboi Tented Camp in 2006 and 2007 before the investor was required to pay the Authorised Association instead of Minjingu village. Due to this and claims by Minjingu village that it did not willingly accept joining the WMA, Minjingu Village Council sued the investor and the Authorised Association in 2014. During the conflict, Minjingu village continued to demand its revenues from the investor who was paying first to the Authorised Association, and since 2012, to the Wildlife Division, c.f. above. At the same time, Minjingu occasionally refused to accept its shares of revenues from the Authorised Association, c.f. **Table 3**. Therefore, to prevent anger and frustration among villagers, the investor had to renegotiate his position and contribute to village development activities in Minjingu over and above previously agreed annual payments that went to the Authorised Association and subsequently to the central government. This enabled the investor to stay in business but reduced his profit margin.

Benefit-sharing programmes that do not address problems at the household level are likely to become unpopular no matter how much money is injected into them [38]. Unfortunately, costs in the form of wildlife causing crop damages and restrictions on traditional uses of resources within areas set aside for the WMA rather than benefits have materialised at the household level in Burunge WMA [39]. Nevertheless, the WMA Regulations Section 17 (e) specifies that the central government is mandated to determine the share of generated benefits that local communities are to receive from village land investments [13]. This clearly contradicts Section 26 of the Local Government District Authorities Act No. 7 of 1982 that mandates Village Councils to be corporate bodies, which are free to earn benefits from investments on their land and to determine how to use the revenues for their own development [40]. In this context, however, the structural power of the Village Councils cannot override the strategic and institutional powers possessed by the Authorised Association, the District Council and the Wildlife Division. This imbalance is bound to cause conflicts.

3.3.2. *Power struggles over the management of Burunge WMA*

The general narrative presented to Village Councils in Burunge WMA suggested that the decision to set aside part of their village lands for conservation under a WMA would not affect their control over these lands. However, the strategic powers that the Authorised Association

Year	Revenue from Maramboi Tented Camp directly to Minjingu village	WMA revenue to each of the other villages
2006	11,198,479	2,083,166
2007	40,511,101	4,703,556

Sources: [37]

Table 5. Revenues received by Minjingu and the other WMA villages in 2006 and 2007 before the investor was required to pay the Authorised Association in current TZS.

share with the District Council and the Wildlife Division has largely made it the, *de facto*, governing body of the WMA area. Even though the villagers officially form it, the Authorised Association distanced itself from the communities and acted mostly in the interest of outsiders. The WMA Regulations' Section 17(a) states that village councils shall 'provide land for the designation and establishment of a Wildlife Management Area' [13]. Accordingly, Vilima Vitatu's Village Council committed 65% of its village land to the WMA during the WMA initiation process, that is, 12,830 ha out of 19,800 ha. Simultaneously, the village population increased from 1,323 in 2003 to 3,281 people in 2014. Therefore, the village wanted to reclaim part of its land from the WMA to offer livelihood opportunities to its citizens. That, however, proved to be far from straightforward. The WMA Regulations Section 37(a) states that a WMA will cease to exist when there is 'a change of use in the Village Land Use Plan' [13, 26]. However, since WMAs are formed by many villages, one or several of these are not free to independently change the status of the part of their land that falls within the WMA. The WMA Regulations are silent on what should happen in a situation where one or several villages change their land use plan and continues to be party to the WMA, but Kicheleri et al. [15] found that when a WMA is gazetted, the land within the WMA appears to change legal status from village land to reserved land. Thus, if Village Councils like that of Vilima Vitatu want to modify their land-use plan, they wake up to a realisation that they have lost control over, the part that falls within the WMA. Meanwhile, the WMAs generate substantial revenues from different investment ventures. As mentioned, 50% of these revenues are controlled by the Authorised Association, not the Village Councils. Hence, although Village Councils hold *de jure* institutional power, the WMA institutional arrangement severely limits their control over WMA revenues (strategic power), thereby undermining their relevance to their constituencies among whom many feel under-compensated for losses they have suffered because of Burunge WMA. Adding pain to injury, the Authorised Association leaders are, in comparison to Village Council leaders, paid generous allowances to attend meetings and workshops in different parts of the country which makes their positions more prestigious and financially attractive than those of Village Council leaders.

An interview with the Wildlife Division officials regarding the management of WMAs revealed that the central government's approach was to progressively build the capacity of Authorised Associations to fill their roles. Nevertheless, Village Council members from the study villages claimed that the Authorised Association had thus far failed to communicate its mandate and obligations to local communities. These findings correspond with those of Kicheleri et al. [15] who found noncompliance with WMA Regulations by Burunge Authorised Association, which failed to hold meetings with villagers. Village Councils and the Authorised Association both hold institutional power, but they differ in the sense that Village Councils have structural power over the people, while the Authorised Association has strategic power (money). Hence, including Village Councils in Authorised Association meetings could challenge the latter's strategic power. Formally, nothing prevents Village Councils from seeking such influence, but information gaps and lack of clear communication channels among the WMA actors have thus far prevented this from happening in a structured manner, which is a major cause of frustrations and conflicts [41].

In short, Burunge WMA has, contrary to its official objective, attenuated the democratically elected Village Councils' powers over their village lands *as well as* their power over revenue

streams from such lands. Village Councils lost their original authority over land and revenue to a newly created and supposedly democratic institution, the Authorised Association, which has subsequently lost part of its authority over WMA revenues to the Wildlife Division and District Councils. Notably, this followed a 'rule through law' process the dangers and consequences of which Village Councils did not realise before it was too late. Intended or not, this looks like 'divide and rule' tactics by the central government to re-centralise while decentralising wildlife governance. Following Ribot's [16] definition of democratic decentralisation: *The transfer of meaningful powers over resources and associated revenue streams from the centre to responsive, representative, and downwardly accountable local institutions*, Burunge WMA has done the exact opposite vis á vis Village Councils.

3.3.3. Power struggles over accessing and using resources

The establishment of Burunge WMA has imposed opportunity costs on local communities by prohibiting their access to natural resources such as water, thatching grasses, building poles, dry season grazing areas, firewood and Doum Palm (*Hyphaene compressa*). However, extraction of some resources such as firewood was allowed on special occasions such as burial ceremonies. Bluwstein et al. [14] reported a similar situation as well as the resulting resistance from local communities within Burunge. In this respect, Kakoi village is a good example. Here, people applauded the idea of establishing the WMA following a verbal promise by the Wildlife Division's representative that the villagers' access to dry season fodders within the WMA area would be maintained. However, unknown to the villagers at that time, plans for tourist hunting in the very same area were also under development. This may explain villagers' subsequent claim that they were hardly involved in the detailed and formalised processes of developing a management plan to legally establish Burunge WMA, c.f. Kicheleri et al. [15]. Village Assemblies and Councils were involved during the sensitisation process but excluded during the preparation of the Management Zone Plan and General Management Plan for the WMA. As mentioned, the official recognition of the WMA area as well as the Authorised Association's authority to manage it is contingent on the Wildlife Director's official endorsement of the Management Zone Plan, which identifies areas for specific uses and set limitations on other forms of use depending on the purpose and sensitivity of the resources. Unsurprisingly, tourist hunting turned out to be incompatible with local resource uses due to risks of accidental injuries or casualties and disturbance of the wildlife targeted for hunting. Accordingly, when the investor complained to the Authorised Association that villagers' collection of fodder and grazing of livestock impacted his tourist hunting business negatively, the Authorised Association decided to criminalise these activities through a revision of the WMA Management Zone Plan. So, on the (verbal) promise of continued access to key resources, the people of Kakoi village were mobilised to support the establishment of Burunge Authorised Association, which subsequently used its legally defined authority to deny people access to these very resources.

3.4. Conflict management in Burunge WMA

Power struggles have fuelled numerous conflicts in Burunge WMA. However, our respondents in the four case villages distinguished between 'conflicts', which they identified as situations where conflicts of interests led to open confrontations and 'problems', which they

identified as circumstances that had made villagers' lives harder but not led to open confrontations. Rules on rights to land and environmental resource use were identified as the source of conflicts among pastoralists, the investor (Maramboi and Burunge Tented Camps) and the Authorised Association (**Table 6**). The conflicts were primarily over access to grazing areas and fodder. Frequently these conflicts were associated with problems of access to (potential) agricultural land, water, building poles, firewood, and thatching grass as grazing lands provide these opportunities and environmental products too.

Table 6 illustrates that most (74%) of the interviewed households stated that conflicts existed within the WMA all of which were over land-use and involved pastoralists, investors and the Authorised Association. The Authorised Association was involved in all conflicts because, since the establishment of the WMA, all investors are answerable to it and not to the respective Village Councils.

Kakoi, which is a rather new village established in 2009, has had land use conflicts over fodder with the Authorised Association since its initiation. On many occasions, villagers from Kakoi cited the separation of Kakoi from Minjingu Village, which wants to pull out of the WMA, as equal to the *German divide and rule tactics during the colonial era*. With the assistance of district officials, it was possible to establish Kakoi village and persuade villagers to join the WMA. Although this tactic was successful, it has not ended land use conflicts. These findings support Neumann [42] and Fairhead [43] who assert that land use conflicts are ubiquitous in CBNRM in Africa. However, this was not expected in the WMA context as CBNRM programme principles aim at giving local communities more rights to resources and associated revenues as well as rights and opportunities to manage conflicts, compared to 'fence-and-fine' conservation approaches [44].

This study also uncovered several problems that villagers perceived were directly related to the WMA and the Authorised Association. Villagers claimed that crop raiding had increased since the WMA was established. As described by a man in Kakoi village: '*... the elephants come in a herd at night before raiding a pumpkin farm. A few would come close to the farm and walk around. When they realise there is no danger, they will give a trumpeting that will call the rest of the herd into the farm*'. Villagers complained about lack of compensation following crop raids. Likewise, fishermen claimed that the Authorised Association had taken over the responsibility of the Beach Management Unit (BMU) [45] denying them their livelihoods, where in reality the BMU should have been run by the communities. They further accused the Authorised Association of assuming control over Burunge Lake.

Villagers also accused investors of fuelling conflicts in Burunge WMA, presumably due to the inherent conflict potential of their conflicting land-use interests. Thus far, none of the

Village				Total	Mean	Percentage
Mwada	Vilima Vitatu	Minjingu	Kakoi			
15	25	30	34	104	26	74

Source: household interviews (n = 140).

Table 6. Land-use conflicts involving pastoralists, investors and the Authorised Association.

identified conflicts between the District Council, the Wildlife Division, Village Councils and the Authorised Association have been resolved. The strategic power (money) possessed by investors in the WMA made villagers claim that the investors bribed officials of the Authorised Association and the District Council to disregard villagers' interests in their village land. For instance, respondents claimed that when they report an incident to the said officials, they tend to team up and visit the investors before calling a resolution meeting with the villagers. The District Council and Authorised Association officials denied these allegations.

No specific participatory and transparent mechanisms to manage and resolve conflicts within Burunge WMA exist. Instead, actors use different means and ways to push their agendas. For example, villagers report conflicts to the Village Councils or the Village Executive Secretary. The Village Councils report conflicts to the Authorised Association or the Babati District Council. The Authorised Association reports conflicts to the Babati District Police and Wildlife Division, while the investors report conflicts to the Authorised Association, District Council and the Police. Also, some villagers deal with problems simply by extracting products in contravention of the WMA rules, that is, through everyday forms of resistance. This multitude of approaches to deal with conflicts and diverging interests is rather bewildering and contrary to the recommendations of, for example, FAO [46], according to which participatory mechanisms for conflict management are critical for successful natural resources management.

4. Conclusion and recommendations

In the management of Burunge WMA, actors had different types of power and to some degree diverging interests, which features among the major causes of resource conflicts and power struggle between the key actors: the Village Assemblies, Village Councils, Babati District Council, NGOs, TANAPA and the Wildlife Division [47, 48]. Overall, Village Councils, the pre-WMA existing village-level democratic institutions, lost powers over their village lands and associated revenue streams-mainly to the Authorised Association but also to the Wildlife Division. All other actors held and gained, via legislative and management rule revisions (rule *through* rather than the rule *of* law), strategic and institutional powers that enabled them to influence WMA management decisions and dominate village citizens' interests. Thus, and quite contrary to its official objectives, Burunge WMA has de-democratised wildlife governance by undermining the importance and relevance of Village Councils to their constituencies. Investors had strategic powers (money) that enabled them to survive amid struggles and conflicts that inevitably involved their business interests. NGOs' strategic and institutional powers enabled them to promote their conservation interests. Specifically, power struggles among the actors were about the generation and distribution of costs and benefits, which resulted from the WMA rules and regulations. Due to power struggles, conflicts emerged over the access to and use of WMA resources. However, conflict management mechanisms pertinent to the WMA were absent.

Consequently, this study recommends that institutional powers must be returned to the Village Councils, whose responsibilities include all aspects of their constituencies' livelihoods. Accordingly, Authorised Associations must be formed *by*, not *in addition to*, the group of Village Councils that have set aside parts of their village lands to form a WMA. Based on

the fundamental principle that WMAs should always be more profitable to Village Councils than realistic alternative uses of their village lands, such new Associations (authorised by the Village Councils as well as the Wildlife Division) should collect and redistribute WMA revenues. Relevant district-level and state-level actors should also get a share if and only if this does not violate the above principle. Accordingly, legislative amendments must secure individual Village Councils permanent and widely defined rights to withdraw from WMAs. Also, the group of Village Councils that contribute land to a WMA should hold legal rights to dissolve the WMA. Both instances must result in the reinstatement of Village Councils' pre-WMA rights to their village lands and related resources. Such legal rights of Village Councils to pull out of or dissolve a WMA would fundamentally change the current economic incentive structure. First, if the WMA yields an overall income that surpasses the sum of perceived net benefits from realistic alternatives, then the group of Village Councils would face a strong incentive to negotiate viable short- and long-term compromises for governing the WMA including how to spend and share common funds among them. Second, the central government, conservation NGOs and potential donors would face a compelling incentive to uphold the moral justification for WMAs: that they remain the most attractive land use for rural communities—in practice, not just potentially or in theory.

Acknowledgements

We are grateful for the support of the Danish Ministry of Foreign Affairs through the Building Stronger Universities programme for funding this study. Thanks are also extended to the District Council of Babati and communities at Mwada, Vilima Vitatu, Minjingu and Kakoi villages in Babati district. Martin R. Nielsen's work on this article was funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No 641918 through the African BioServices project.

Author details

Rose P. Kicheleri^{1*}, Thorsten Treue², George C. Kajembe³, Felister M. Mombo⁴ and Martin R. Nielsen²

*Address all correspondence to: rose.kicheleri@gmail.com

1 Department of Wildlife Management, Sokoine University of Agriculture, Morogoro, Tanzania

2 Department of Food and Resource Economics, Faculty of Science, University of Copenhagen, Denmark

3 Department of Forest Resources Assessment and Management, Sokoine University of Agriculture, Morogoro, Tanzania

4 Department of Forest and Environmental Economics, Sokoine University of Agriculture, Morogoro, Tanzania

References

- [1] Dahl RA. The concept of power. *Systems Research and Behavioral Science*. 1957;2(3): 201-215
- [2] Raik DB, Wilson AL, Decker DJ. Power in natural resources management: An application of theory. *Society and Natural Resources*. 2008;21(8):729-739
- [3] Nuijten MC. Power in practice: A force field approach to power in natural resource management. *The Journal of Transdisciplinary Environmental Studies*. 2005;4(2):3-14
- [4] Mbeyale GE. The impact of institutional changes on the Management of common pool resources in Pangani River Basin: A case of Eastern Same, Kilimanjaro, Tanzania [thesis]. Morogoro, Tanzania: University of Dar es Salaam; 2009
- [5] Kajembe GC, Silayo DA, Mombo FM, Abdallah JM, Maliondo SM. REDD+ piloting in Tanzania: The village as an arena for defining and defending local and national interests. *Tanzania Journal of Forestry and Nature Conservation*. 2016;1(1)
- [6] Amanzi M. Power relations between upstream and downstream common pool resource users: Winners and losers in the Uluguru Mountains, Morogoro, Tanzania [thesis]. Morogoro, Tanzania: Sokoine University of Agriculture; 2011
- [7] International Institute for Environment and Development (IIED) [Internet]. Power Tool: Stakeholder Power Analysis. IIED. 2005. Available from: http://www.policy-powertools.org/Tools/Understanding/docs/stakeholder_power_tool_english.pdf [Accessed: 07-11-2016]
- [8] Minwary MY. Politics of participatory wildlife management in Enduimet WMA, Tanzania [thesis]. Norway: Norwegian University of Life Sciences; 2009
- [9] Scott J. Everyday forms of peasant resistance. *The Journal of Peasant Studies*. 1986;13(2): 5-35
- [10] Kajembe GC, Monela GC. Empowering communities to manage natural resources: Where does the new power lie? A case study of Duru-Haitemba, Babati, Tanzania. *Empowering Communities to Manage Natural Resources: Case Studies from Southern Africa*. 2000:151-163
- [11] Nelson F, Agrawal A. Patronage or participation? Community-based natural resource management reform in Sub-Saharan Africa. *Development and Change*. 2008;39(4):557-585
- [12] United Republic of Tanzania (URT). The Wildlife Policy of Tanzania. Ministry of Natural Resources and Tourism. Dar es Salaam, Tanzania: Government Printer; 1998
- [13] United Republic of Tanzania (URT). Wildlife Conservation (Wildlife Management Areas) Regulations. Dar es Salaam, Tanzania: Government Printer; 2012
- [14] Bluwstein J, Moyo F, Kicheleri RP. Austere conservation: Understanding conflicts over resource governance in Tanzanian wildlife management areas. *Conservation and Society*. 2016;14(3):218

- [15] Kicheleri RP, Treue T, Nielsen MR, Kajembe GC, Mombo FM. Institutional rhetoric versus local reality: A case study of Burunge Wildlife Management Area, Tanzania. *Journal of Environment & Development*. 2018;1-15
- [16] Ribot J. *Waiting for Democracy: The Politics of Choice in Natural Resource Decentralization*. Washington DC: World Resource Institute; 2004
- [17] United Republic of Tanzania (URT). *The Wildlife Policy of Tanzania*. Ministry of Natural Resources and Tourism. Dar es Salaam, Tanzania: Government Printer; 2007
- [18] Ribot JC. *African Decentralization: Local Actors, Powers and Accountability*. Geneva: UNRISD; 2002
- [19] Ostrom E. *Governing the Commons: The Evolution of Institutions for Collective action*. Cambridge University Press; 1990
- [20] Ribot JC, Agrawal A, Larson AM. Recentralizing while decentralizing: How national governments re-appropriate forest resources. *World Development*. 2006;**34**(11):1864-1886
- [21] Authorised Association Consortium: Community Wildlife Management Areas Consortium. Available from: <http://www.twma.co.tz/> [Accessed: 03-08-2017]
- [22] United States of America International Development Agency (USAID). *Tanzania Wildlife Management Areas Evaluation Final Evaluation Report*. 2013. Available from: http://pdf.usaid.gov/pdf_docs/pdacy083.pdf [Accessed: 05-03-2016]
- [23] World Wildlife Fund (WWF). *Tanzania's Wildlife Management Areas: A 2012 Status Report*. 2014. Dar es Salaam: WWF. Available from: http://www.twma.co.tz/uploads/WMA_Status_Report_2012_Final.pdf [Accessed: 05-03-2016]
- [24] Shilereyo M. *Political Ecology of Burunge Wildlife Management Area, Babati, Tanzania [thesis]*. Morogoro, Tanzania: Sokoine University of Agriculture; 2010
- [25] Manyika KF, Kajembe GC, Silayo DA, Vatn A. Strategic Power and Power Struggles in the National REDD+ Governance Process in Tanzania: Any Effect on Its Legitimacy? *Tanzania Journal of Forestry and Nature Conservation*. **83**(1):69-82
- [26] Pokrant B. Common property theory. In: Mulvaney D, Robbins P, editors. *Green politics: An A-to-Z Guide*. Thousand Oaks, CA: SAGE Publications Ltd; 2011. pp. 64-66
- [27] Burunge Authorised Association (AA). *Burunge Wildlife Management Area: The Burunge WMA Constitution*. 2003
- [28] Burunge Authorised Association (AA). *Burunge Wildlife Management Area: The General Management Plan for Burunge WMA (2011-2020)*. 2011. p. 53
- [29] Mariki SB. Social impacts of protected areas on gender in West Kilimanjaro, Tanzania. *Open Journal of Social Sciences*. 2016;**4**(03):220
- [30] Guest G, Bunce A, Johnson L. How many interviews are enough? An experiment with data saturation and variability. *Field Methods*. 2006;**18**(1):59-82
- [31] United Nations (UN). *Designing Household Survey Samples: Practical Guidelines*. New York. Series F No.98: Department of Economic and Social Affairs, Statistics Division; 2005

- [32] Stemler S. An overview of content analysis. *Practical Assessment, Research & Evaluation*. 2001;7(17):137-146
- [33] Kohlbacher F. The use of qualitative content analysis in case study research. *Qualitative Social Research*. 2006;7(1)
- [34] Sachedina HT. Disconnected nature: the scaling up of African Wildlife Foundation and its impacts on biodiversity conservation and local livelihoods. *Antipode*. 2010;42(3):603-623
- [35] Kelly AB. Conservation practice as primitive accumulation. *Journal of Peasant Studies*. 2011;38(4):683-701
- [36] United Republic of Tanzania (URT). The Wildlife Conservation (Non-Consumptive Wildlife Utilization) Regulations. Dar es Salaam, Tanzania: Government Printer; 2016
- [37] Maramboi Tented Lodge Ltd. Revenues Report. 2017
- [38] United States of America International Development Agency (USAID). Community-Based Conservation Experience in Tanzania: An Assessment of Lessons Learned. 2000
- [39] Kaswamila A. An analysis of the contribution of community wildlife management areas on livelihood in Tanzania. In: *Sustainable Natural Resources Management*. In-Tech; 2012
- [40] United Republic of Tanzania (URT). The Local Government (District Authorities) Act. Ministry of Natural Resources and Tourism. Dar es Salaam, Tanzania: Government Printer; 1982
- [41] Food and Agriculture Organisation of the United Nations (FAO). Training Manual on Community Forest Management and Diversification. 2017
- [42] Neumann RP. The post war conservation boom in British colonial Africa. *Environmental History*. 2002;7(1):22-47
- [43] Fairhead J. International dimensions of conflict over natural and environmental resources. In: *Violent Environments*. 2001. pp. 213-236
- [44] Child B, Barnes G. The conceptual evolution and practice of community-based natural resource management in southern Africa: Past, present and future. *Environmental Conservation*. 2010;37(3):283-295
- [45] Sobo FS. Community participation in fisheries management in Tanzania. In: *IIFET Tanzania Proceedings*; 2012
- [46] Food and Agriculture Organisation of the United Nations (FAO). *Conflicts and Natural Resource Management*. 2000
- [47] Richards P. Are forest wars in Africa resource conflicts? The case of Sierra Leone. In: *Violent Environments*. 2001. pp. 65-82
- [48] United Republic of Tanzania (URT). The Wildlife Conservation (Wildlife Management Areas) Regulations. Ministry of Natural Resources and Tourism. Dar es Salaam, Tanzania: Government Printer; 2002

