



Local institutions and forest management: a case of Enguserosambu Community Forest, Tanzania

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ABSTRACT

Governments are shifting the forest tenure systems to local and indigenous communities. This relatively new innovative approach serves as an opportunity for sustainable forest initiatives and economic development for some of the marginalized communities. This paper examines the role of local and indigenous institutions in the management of Enguserosambu Community Forest. One focus group discussion, 12 group interviews and seven individual interviews were conducted. A total of 46 individuals participated, out of these, 17 were females and 29 were males. Thematic analysis was conducted and several themes were generated during the analysis. Results indicate that Enguserosambu Community Forest, which is managed under a complex set of power structure, has five local/indigenous institutions actively engaged in the management of forest resources. There are internal conflicts among institutions, each questioning the role of the other. However, local institutions still play a strong role in the community by creating awareness and capacity building among the community members with regard to the forest and its benefits. Local institutions also ensure that users are identified and the benefits are shared among the right users. It is therefore important to build capacity of local institutions to enable them to effectively contribute to forest conservation and management.

Keywords: local - institutions - forest management - community forests

INTRODUCTION

Local institutions in resource management

The increased recognition of the role of local communities especially those located in their vicinity in the forest management represents a profound change in forest management policy for the last 30 years (Sunderlin *et al.* 2008). The shift of perception has been attributed to several factors both internal (demands for participation from communities) and external (donor pressure) (Larson & Soto, 2008; Agrawal *et al.*, 2008; RRI, 2004). Indigenous communities among others are gradually recognized as important stewards of the global forest land. As Fa *et al.* (2020) noted, in developing countries, indigenous communities are increasingly granted legal title to forests, and this is regarded as one of the mechanisms used to implement decentralization (White & Martin 2002, Sunderlin *et al.* 2008).

Considering the growing pressure from extractive industries, infrastructure development and conservation, indigenous communities are seeking legal recognition of their collective rights to tenure over their ancestral land (FAO 2019). This is because, their cultural identities, livelihoods and knowledge systems are linked with their ancestral land. It is estimated that about 36 per cent of the remaining forests globally is under the management of indigenous communities (Fa *et al.* 2020). This relatively new innovative approach serves as an opportunity for sustainable forest initiatives and economic development for some of the marginalized communities. It is argued that active involvement of indigenous



communities and granting of legal title to their ancestral land can contribute towards the attainment of Sustainable Development Goals and its associated targets; specifically on goals 15 (Life on Land), 1 (ending poverty), 2 (eliminating hunger) and goal 13 (climate change mitigation) among others (FAO 2019).

Forest under traditional ecological knowledge plays a big role in addressing deforestation, loss of biodiversity and contributes to climate change adaptation and mitigation measures (Fa *et al.* 2020, Kuru *et al.* 2021). Despite playing an important role in forest management and conservation, traditional knowledge is facing lots of challenges including increasing loss of customary control and management over forest resources, intergenerational erosion of traditional knowledge and monocultural formal education systems, among others.

Although the majority of studies looked at the role of communities in resource management, little consideration is given to the array of factors and the different ways of perceiving and using these resources within communities (Nygren 2004). In a local setting, for example, the use of natural resources is moderated by different and overlapping local institutions, both formal and informal (Kayambazinthu *et al.* 2003). Such institutions legitimize the authority of the local communities of establishing or controlling resources and formulating local-level governance structures necessary for forest management (Cronkleton *et al.* 2011). Further, local institutions shape the pattern of use and management of natural resources and modify the political landscape over time (Batterbury and Bennington 1999, Leach *et al.* 1999). Institutions are defined as a set of accepted rules and norms that define user groups, shape resource use decisions, elaborate how conflicts are resolved and how resources are exploited and monitored (North 1991). Uphoff (1992, p. 3) defines an institution as a "complex set of norms and behaviours that persist over time by serving some socially valued purpose." They are a

"set of rules used" (Ostrom 1992, p. 19) or "rules of games in society" (North 1990). Therefore, institutions in this context are not organizations that help the community manage their forest but rules of the games that help them protect the forest.

Local institutions offer an efficient and sustainable way of managing and utilizing natural resources (Uphoff, 1992). This is because, institutions at the local level provide less costly, quicker methods of monitoring changes in resource status and faster ways of resolving resource-related conflicts by giving the longer-view approach for cooperation rather than focusing on individual interests (Uphoff 1992). Well defined institutions will provide precise and necessary information to the community with regards to ownership, responsibility and decision making about forest resources management.

However, local institutions are more likely to be successful in natural resource management where the resources are known, predictable and where the users themselves are in an identifiable group or community with its authority and structure (Uphoff 1992, p. 8). Sometimes, these groups might be communities that have lived in the area for a long period and developed their systems of resource management commonly known as indigenous systems (UN 2009, Bruchac 2014). Indigenous institutions are those institutions that emerge in a particular locality, practised by the people who occupied the area for some time. They represent the established system of local authority derived from socio-cultural and historical processes in a given society (Watson 2003). According to McElwee (1994), more often the formal institutions in a local setting include the local traditional elders, user groups, village committees and district councils while informal institutions are based on indigenous belief systems of moral and spiritual control.

In order to increase people's participation and empower them in resource management, it is better to develop appropriate policy



measures that will decentralize responsibilities to the local level (Mohan *et al.* 2003). This is because decentralization provides the marginalized group with the opportunity of being able to influence policy, provide communities with new revenues opportunities, and foster a sense of ownership and responsibility among communities towards resource management. Furthermore, Nygren (2005) emphasized the need for decentralization of forest management to the local institutions, building capacity to these institutions so that they may deliver better results and the need to understand the diverse forms of local institutions operating at the local level. In the face of climate change, local institutions also play part in fostering resilience among local communities against climate change (Allen 2006).

The issue of forest ownership by indigenous communities has recently been receiving growing attention in research and policy. There is increasing awareness of the role of indigenous institutions in management of forest and recognition of indigenous communities' values and goals when it comes to biodiversity conservation, particularly in integrated conservation concepts that aim to combine nature conservation and community livelihood. It is against that background this paper is set to examine the role of the local indigenous institution in the management of Enguserosambu Community Forest.

Enguserosambu Community Forest is a natural forest composed of hard and softwood tree species. The forest plays a significant part within the Serengeti ecosystem; it is a water catchment forest that serves most of the rivers running through the Serengeti National Park and Lake Natron (A salt lake which is the breeding ground for most of the world lesser flamingos - *Phoenicopterus mino*). The forest also

provides a habitat for wildlife and birds. Loliondo area in general is rich in wildlife all year around. Enguserosambu Community Forest is, therefore, a vital forest for the sustainability of the Ngorongoro Conservation Area and the Serengeti National Park as well as the entire Serengeti – Mara ecosystem.

The livelihoods of communities depend on forest resources. The predominant land use in Loliondo has been pastoralism, based on *transhumance system*¹ although currently agriculture is increasingly practised in the area. The traditional seasonal movements of herds help to protect both dry and wet season pastures from overgrazing. The land use zones for different seasons are allocated by the customary elders based on traditional practices. It is for the same reason wildlife migrate seasonally between Serengeti and Mara (Homewood and Rogers 1991, Sinclair 1995). This seasonal movement between pastoral herds and wildlife has co-existed in the Serengeti ecosystem for over 200 years (Sinclair 1995).

MATERIALS AND METHODS

Study area description

Enguserosambu Community Forest (ECF) is located in the northern part of Ngorongoro Conservation Area (NCA) and Serengeti National Park (SNP) in Tanzania. To the west Enguserosambu Community Forest is bordered by Loliondo Game Controlled Area and Mara Nature Reserve in Kenya borders the Forest to the north. It forms part of the Greater Serengeti Ecosystem, which is home to the greatest abundance of terrestrial wildlife on earth, with nearly three million wildebeest moving between the Serengeti plains, the woodlands and the savannahs of the Maasai Mara annually (Sinclair 1995).

Enguserosambu community forest covers an area of 7,198 ha (17,787 acres) with patches

¹ pattern of seasonal movement between dry season and wet season pastures



of grazing land in between. The forest is mainly spread in four villages of Naan, Ng'arwa, Orkiu Juu and Enguserosambu, which together form Enguserosambu Ward. Communities living in the area are predominantly Maasai. The total population in the area is about 1,562 (Population census 2012).

Data collection and analysis

Both, formal and informal institutions in the area were identified and included in the study. One focus group discussion, 12 group interviews and seven individuals were interviewed. A total of 46 individuals participated, out of these 17 were females and 29 were males (Table 1).

Table 1: Respondents for Institution data

Methods used	Male	Female	Total
1 -Focus Group Discussion	6	2	8
12 - Group Interviews	18	13	31
7 - Individual Interviews	5	2	7
	29	17	46

Data saturation was used to determine the number of individuals included in the interviews. Individual oral interviews were conducted to members working on NGO's supporting the community in forest management as well as village government members. Group interviews were conducted with purposively selected forest user groups to get their collective opinion on issues related to forest and its management. Forest user groups consisted of women, honey collectors, warriors, traditional nurses and doctors who were randomly selected. Focus group discussion was conducted with community conservation trust members with the aim of describing and understanding meaning and interpretations of a specific phenomenon from the participant's perspective (Liamputtong, 2009). Both interviews and focus group discussion were

conducted in Swahili and/or *Maa* language, and some were audio recorded. Transcripts were analysed with the help of NVIVO 12 for themes and patterns.

RESULTS AND DISCUSSION

Institutions and their profile

There are several local institutions and actors that guide the forest activities including customary elders (Oleigwanan), forest resource user groups (Honey collectors, traditional nurses/doctors, firewood collectors), warriors/local militia, village government and forest trust. All institutions in one way or the other actively engage in the management of forest resources as summarized in Table 2.

Table 2: Types of institutions governing Enguserosambu Community Forest

Institution	Role	Type of rule
Forest user groups	Resource use rules, regulations, resource utilization, resource protection	Informal/formal
Customary elders	Customs, norms, taboos, resource use rules and regulations	Informal
Moran/Warriors	Resource utilization, resource protection	Informal
Forest Trust	Traditional authority over resource management, By-laws, customs, resource use rules and regulations	Formal/Informal
Village government	Bylaws, creating committee responsible for natural resource management	Formal



Customary elders

Customary elders in the society are also considered as the ruling group. They are responsible for settling society disputes and making decisions regarding all community affairs.

Forest user groups

These groups consist of society members organized in groups based on their commonalities in forest use. They comprise honey collectors, traditional nurses/doctors and firewood collectors.

Moran/Warriors

These include groups of young men between 14 – 30 years of age. Their main role is to provide security to the family and protect their animals from any danger. They go through several traditional rituals and ceremonies learning about cultural practices and other customary laws and responsibilities aiming at transforming them to be better men in society. Often, warriors are mentored by the elders in society. They are mainly forest guards and protectors.

Forest Trust

The Enguserosambu Forest Trust (EFT) is registered as an independent and established CBO whose main goal is managing the forest, protecting the culture and livelihood of the communities that depend on the forest. It consists of 11 Board members elected among community members surrounding the forest.

Village government

The village government consists of the village council that is responsible for managing all village affairs, including the land. It is the highest decision-making body in the village.

Role of institutions

Institutions in the area have various roles and responsibilities in supporting the management of ECF (Table 3). The main prominent role across all institutions is forest patrol followed by capacity building and knowledge sharing.

Table 3: Role of local institutions

Role	Frequency
Capacity building and knowledge sharing	8
Creating bylaws	4
Forest patrol	18
Overall, in charge of forest management practices	4

Forest patrol is the key role highly engaged by all user groups. Forest patrol is conducted regularly using local traditional techniques. Forest patrols possess large chances of effectively managing the forest since every member participates. For example, one of the honey collectors said,

Our main role is to protect the forest from destructions such as illegal logging and general environmental destruction. As a honey collector, I depend on trees to get honey. So, have to make sure that trees are protected.

Another respondent commented,

When we go to the forest for firewood or to fetch water, we also survey the forest. If we see anything suspicious, we report back to the elders.

Training and capacity building was also cited as one among the key roles played by local institutions. Informal training through age group meetings, gender-related meetings, user group meetings and general village meetings form an important platform for communities to learn and share forest management strategies. In group meetings, members are encouraged to actively participate and air out their views related to forest management within their community. For instance, one woman stated ‘my role as



a woman is to attend the meetings and participate in the making of rules'. Through sharing of personal views and opinions, communities believe that they can influence rules and regulations that govern forest management practices as their formulation and approval pass through the same channel. Within the community, NGO's also have capacity building programmes on various issues that are important to the community including livelihood support programmes, that provide the community with knowledge on cattle improvement to boost their livestock yields.

Similar study has indicated forest patrol and awareness creation among community members as among the main roles of the local institutions managing community forest reserve (Giliba *et al.* 2013). This is possible because majority of indigenous institutions have people who have technical knowledge on forest management and may therefore guide other members in forest management activities. Kajembe *et al.* (2003)

called for combined strategies with the inclusion of traditional institutions to enhance their capacity in forest management.

Forest by-laws exist however, communities prefer to use their local knowledge and traditions. Often, the communities are of the view that by-laws are often imposed by the central government, and sometimes do not reflect the local realities. The role of forest officers at the district level is therefore to offer technical support to the communities. One of the respondents at the forest office mentioned,

Therefore, our role is to provide training when needed. Mostly we attend village meetings and have a training session on forest management.

Collaboration among institutions

Collaboration in planning and management of forest activities as well as clear division of power and responsibilities were the two positive themes noted on collaboration among institutions (Table 4).

Table 4: Collaboration among local institutions

Collaboration	Frequency
<i>Positive</i>	
Clear delineation of power	7
Planning and management of forest activities	15
Establishing forest by-laws	2
Build capacity among communities	2
<i>Negative</i>	
By-laws established does not recognize the board	4
Conflict with other existing authorities	7
Other authorities do not agree with what the board does	2

Five different local/indigenous institutions were identified during fieldwork. Communication and information sharing among these institutions are minimal with little or no collaboration. Further, there is no clear power boundaries and delineation of activities that each of the institutions is set to accomplish. Members of some local institutions, claim to have an ongoing internal conflict with others or question the role of other institutions in forest management. For example, the role of community conservation trust, an overseer of

the community forest is not known by the remaining four institutions. Further, there is an ongoing internal conflict between the community conservation trust and the local village government. The underlying reason for the conflict is the question of power: who has the ultimate power when it comes to forest management? Local government officials believe to have more powers over the community conservation trust. The local government believe so because they are the extension of the central government operation at the local level. The local



government is responsible for managing all resources available in the village through various committees.

The community conservation trust (ECF) on the other hand, consists of 10 board members, representatives of the villages surrounding the forest elected and approved by the Village Council with the role of overseeing the forest management in the community. ECF is established as a managing authority of the forest that is central to the protection of culture and livelihood. Technically, since the community conservation trust is working at the ward level, and it is the organization that signed the contract/ownership documents with the government, it should be the institution having the overall say with issues related to forest management. The government aimed to request the community to formulate an organization body responsible for managing the forest on their behalf, a prerequisite for them to be granted legal ownership of the forest.

Information sharing is also a challenge among institutions. Most of the institutions do not know what others are doing hence running the risk of duplicating the management effort. Similarly, since there are no designated areas within the forest for different uses, multiple and overlapping use creates pressure on some areas more than others. For example, warriors think that the medicinal plants are still plenty in the forest and they can easily be accessed by anyone in need while traditional doctors commented on less availability of the same and that the resource is not easily found within the forest unless in some remote parts of the forests found at higher elevations.

Given the existing power overlap among institutions operating in the area, most institutions especially those that are non-traditional do not agree with others. For example, forest officials at the district level are worried that the trust and communities, in general, do not know their legal boundaries in terms of forest management. Forest Officers observed a twist and sometimes

evasion of regulations by community conservation trust. Currently, most of the major decisions are made at the local level with little or no consultation of the district forest officers. The community conservation trust and some of the local government offices in the village are claimed to be granting logging permits. This was narrated by one respondent who said,

The board thinks that by being given the authority to manage the forest, then the forest office does not have any power over them. They do what they see fit on their own accord. Their [conservation trust] leaders even issue logging permits which is against the regulation. Even though the forest is managed by them, any sort of forest utilization has to be approved by us [District Forest Office].

Although Forest Conservation Trust is seen as the apex body when it comes to forest management in the area, the case is different on the ground. All other institutions in the area have a direct or indirect influence on how the forest is managed. Surprisingly, community conservation trust board members do not seem to know exactly their boundaries of work. Furthermore, forest bylaws give back the authority and power of forest management to the village government. For example, subsection (5) in the forest bylaws states: "it is the responsibility of respective village council through community conservation trust to ensure the forest is managed under the Forest Act of 2002 section 233 according to the regulations created by the council. This not only confuses the board and others alike, but it questions the legality of the board in terms of decision making and its responsibility of making sure that the forest is protected in accordance with the traditions and customs of the Maasai community.

Although most of the local village council members (village chairmen and representatives) are of the same ethnic origin and share the same cultural values, there is a



struggle on what rules to be followed. Most of the village government leaders discourage the traditional laws and question their effectiveness in maintaining the forest ecosystem in the long run. Their claim might be true for two main reasons: One, there is increasing incidences of forest encroachment by people who are non-Maasai from nearby areas. These people are claimed to be also participating in illegal activities such as logging. When these people are caught, it is not logical for them to be punished using the traditional laws, since they do not share the same values and traditions. Second, there is a population increase and a shift from traditional livelihood activities which increase pressure on forest resources. All these changes are not reflected in the current traditions and customs.

However, other representatives view the institutions' complexity on a positive note. Some of the representatives claim to clearly understand what others are doing. They also note that having many institutions focusing on the same issue provides them with different sources of information as well as the capacity of managing the resource for the benefit of all. Some noted that the presence of forest bylaws reduces the confusion as it lays out the roles of each one.

The bylaw has helped to answer most of our questions and reduces conflict among different levels of operation in the community. It is also true that there are environmental committees at the local government level. But the bylaws have stipulated the responsibility of each one of them.

Some of the institutions also collaborate at all levels from planning to implementation of forest management activities. For example, one respondent said,

We collaborate with the board [community conservation trust] in managing the forest. We collaborate in forest patrol. We charge fine those who break the law. We also collaborate with local NGOs as well to select who is to patrol the forest.

Other institutions collaborate on capacity building activities to enhance the conservation awareness among community members, as one of the representatives commented,

“Apart from offering training to the community, we also collaborate with environmental committees in each village because they [environmental committees] are the ones responsible for managing resources in their respective areas. Therefore, we use them [environmental committees] to deliver the message to communities as well”.

Challenges facing local and indigenous institutions

The respondents were also asked to identify the main challenges threatening the existence of the ECF. Population increase, illegal activities, free resource access and change in livelihood activities stem out to be major threats. Their results on frequency of each challenge are summarized in Table 5.

Table 5: Challenges facing local institution in managing the forest

Challenge	Frequency
Population increase	32
Illegal activities	13
Being a common pool resource	12
Change in community livelihood pattern	8
Difficulty terrain	4
Misunderstanding with other district officials	6
Poor land use planning	5
Climate change	3
Land of funds/material support	3
Mining	2



Similar to customary elder's observation, population increase has been identified to be the key threat to forest sustainability. This is because population increase is associated with the rise in demand for both timber and non-timber forest products and an increase in the number of livestock hence the demand for new grazing grounds. Population increase also exacerbates the demand for new farms as well as new settlement areas. This was stipulated by several respondents as follows:

What we see now is the huge increase in population as compared to previous years. Their demands have also increased. The population has increased demand for necessities such as fencing poles, firewood, medicines, water etc. In previous years the forest cover was very thick. But we see a lot of changes now due to increased demand for forest products.

The population has increased compared to what it used to be. Forest dependence was also minimal because the population was small. Currently, the population has dramatically increased which has led to an increase in the demand for forest products. Farming has also increased, we never used to farm.

The language was also noted to be a big challenge especially for government officials who are non-Maasai. Some of the government officials do not speak *Maa* language hence making it difficult for them to contribute or share information, especially during the general assembly meetings. Most of these leaders are appointees to the area holding government positions at the village level. For women appointees, it is even difficult given the nature of the Maasai culture and lifestyle (Patriarchal society). For example, one female respondent said:

Most men in the Maasai culture do not respect women. Initially, most of the traditional leaders and customary elders and most parts of

the elderly community did not respect me for simply being a female... I am very young for them to sit and listen to me. It is a big challenge but I have to do my work.

Maasai being a patriarchal society, women do not have much power in decision making. This is also reflected in their representation on the conservation board (3 women out of 10 board members) as well as their attendance at the general assembly meeting where major decisions are made. However, most of the elderly women claim to call women meeting when need be for them to communicate what is needed of them as society members. The meetings are intended to empower young women as a means of preparing them for being responsible mothers.

Free resource access creates a huge challenge in forest resource utilization. Currently, there is no limit on how much or how frequent non-timber forest products can be taken from the forest. Free resource access increases pressure on resources and tempers with forest sustainability especially at this time when the population is increasing. For example, one of the respondents mentioned, "I have grown up using resources from the forest, the problem I see as a challenge now is how fast these resources are utilized given the increasing community members."

Poor resource utilization plan has resulted in increasing difficulty in finding traditional medicine in the forest. Most of these resources are currently found deeper in the forest, not at the edges as they used to be. Due to decreased firewood access and the ban on cutting standing trees, women claim to peel tree barks of the trees so that they may dry faster or cut down the trees and leave them in the forest and come back after a few days to collect them when they are dry.

The terrain of the area makes it difficult for most institutions to conduct frequent patrols. The hilly and valley nature of the forest (Plate 1) make it difficult for communities to conduct efficient and effective forest patrols.



Similarly, not all areas are accessible and not everyone is capable of walking such a long distance and in difficult terrain. To make the matter even worse, most of the areas do not have a reliable mobile connection. Poor communication and landscape terrain make it difficult for most forest user groups to provide feedback to the elders in case they noticed some illegal activities within the forest. This is because most of the time they are required to travel back to the village to deliver the message to the elders. The information delay provides enough time for poachers to accomplish their motives and flee the area sometimes without being captured. For example, one of the respondents said:

Some parts of the forest do not have any telephone signals hence making communication very difficult.

If not for the willingness of the community to protect the forest, trust [community conservation trust] alone would not have made anything. You might find that the board has only two representatives in each village. For them to accomplish all they are supposed to do is very challenging. It might be impossible for them to walk and patrol the forest by themselves. What helps us is the traditions and customs of the communities. If the board is to patrol the forest on their own, how many days are they going to take to finish the whole forest? It is just because the community is willing and participating in the management of the forest and collaborate very well.

The challenges are similar to findings of Chingaipe *et al.* (2015) who analysed the effectiveness of local institutions in forest management where illegal forest activities and encroachment for agricultural activities was highly rated as challenges facing local institutions. Girma and Beyene (2015) recommend improvement of institution structures and to recognize the role

traditional systems in forest management as a remedy to overcome challenges.

CONCLUSION

Local institutions play an important role in the community by creating awareness and building capacity among the community members. The local institution also ensure that users are identified and benefits are shared among the right users. Since Enguserosambu Community Forest represents a relatively new tenure category in forest management, a lot needs to be learned and shared among all the involved local institutions. There is a need of harmonizing local/traditional practices with forest policies at the national level. Although the communities are granted the right of managing the forest, they are required to do so under the forest policy and regulations of Tanzania. More training is also needed among most institutional members and all those who are responsible for decision making in society.

The results indicated that bylaws give the powers and authority to local government and do not recognize the capacity of the local/traditional institutions in managing the forest. This may be attributed to the fact that most of the traditional means are not 'tangible' (they constantly change, it is upon the discretion of the customary elders to decide what to do with the situation). Therefore, securing customary tenure rights is crucial in reducing deforestation, resilient forest conservation and biodiversity protection. Effective governance systems along with strengthened human and institutional capacities are needed to protect and ensure more responsive and productive sustainable management of forest resources by local and indigenous communities. Overall, it is important to pay attention to informal/invisible institutions and recognize their contribution to forest conservation.



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