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Institutionalisation of Community Participation And Sustainability in Governance of Community Forests: Perspectives from Zanzibar, Tanzania

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Abstract

Tanzania, like many other tropical countries, has streamlined its environmental policies to institutionalise community participation and improve governance of community forests. The question is: to what extent has the governance of these forests improved as a result of the specified measures? The aim of this paper is to understand whether the institutionalisation of community participation through Community Forest Management Agreements (CoFMAs) guarantees sustainability in the governance of community forests in Zanzibar. Data for this paper were collected through structured interviews from 323 respondents in selected households, and complemented with in-depth interviews with 27 key informants (government officials, elders from the communities, local leaders and leaders of community conservation groups). The results show that the establishment of CoFMAs followed existing legislative frameworks to formalize community participation to ensure governance sustainability of community forests. However, the established conservation initiatives such as community participation in decision-making processes, benefit-sharing of forest resources, technological transfer, and community monitoring of forest resources have remained elusive as most of those initiatives have not been sustained overtime. Although CoFMAs have slightly improved community forest areas, illegal hunting of wildlife in and out of the conserved forests still remains a challenge. As such, the institutionalization of community participation under CoFMA cannot guarantee sustainability in the governance of community forest resources, unless it is community-led, and has access to reliable sources of income. Communities should, therefore, be facilitated with income-generating conservation projects, and/or establish reliable alternative sources of income to meet their needs to ensure sustainable governance of resources.

Key words: *community participation, community forest management areas, forest resources, forest governance, sustainability in governance*

1. Introduction

1.1 Background

The institutionalisation of local community participation in natural resource governance is increasing worldwide (Krause, 2002). Community participation approach is believed to attain sustainable governance of forests (SGF), which is one among the discourse of sustainable development (SD). SD emphasizes on

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community participation, equity distribution of production and consumption, financial assistance, as well as technology transfer from the global north to the global south (Bjärstig, 2017). However, the sustainability of community participation in forest governance to retain such aspects still remains questionable. Sustainable governance (SG) encompasses three social dimensions that involve social, economic and ecological aspects (Bjärstig, 2017). The social dimension emphasizes respect of human rights and equitable distribution of resources; the ecological focuses on managing and conserving resources to ensure continuity of ecological services; and the economic means maintaining the cost effectiveness of economic activities at different levels in the society.

To achieve the prescribed target of SGF, community participation is institutionalized so as to have coherent governance of forest resources. The institutionalization of community participation involves processes of establishing and/or empowering community institutions that make decisions according to agreed procedures, controlling actions permitted, and providing information to stakeholders (Acema et al*.,* 2021). This process is expected to improve performance and sustainability in the governance of forest (Gatzweiler, 2005). As social institutions, community institutions comprise formal and informal rules, norms and regulations such as prohibitions of access and use; as well as social based conservation strategies that shape behaviour, interaction and attitudes of individuals and the community (Acema et al*.,* 2021). Accordingly, institutions are complex and persist overtime, serving collective and valued effort to promote efficiency on resource governance. North (2016) maintains that institutions are formed to eliminate or reduce uncertainty in resource governance. In this regard, they consist of rules and guidelines that promote effective governance of forest resources overtime (Ballet et al*.,* 2007).

Governance is the process of interactions or the manner by which authority is exercised to manage social and economic resources for the public good. It encompasses how decision-making is made to institute standards; and it involves various kinds of actors (Ongolo & Karsenty, 2015). Hence, forest governance involves various actors from local, national and international levels. Each category of actor has a different interest and influence on forests management. The actors are involved in the formulation of forest policies based on their varying levels of influence. Similarly, their positions and roles in implementing these policies vary accordingly. Due to the heterogeneity nature of a community, sustainable governance of resources is important for limiting and regulating utilization.

In many African countries, such as Gabon Madagascar and Tanzania, communities had been managing their forest resources sustainably for a long time. Before colonialism, communities used their customary laws to control the utilization of forest resources, such as the hunting of wildlife within their

respective communities (Barrow et al., 2016). Utilisation plans and rights to access forest resources were part of the community norms; and informal rules were mainly used to govern forest resources. Since the colonial period, however, externally imposed interventions have been established to transform the right to access natural resources (Barrow et al., 2016). Communities have been exposed to the western ideology of conservation, which includes state control, property rights and market-based management of forest resources. Such conservation practices have not only restructured institutional arrangements of forest resources, but have also indoctrinated top-down ideology, sense of excludability, as well as inculcating greedy behaviours amongst individuals (Ballet et al., 2007; Maraga et al., 2010; Rabe & Saunders, 2013). These external conservation approaches have, however, failed to attain sustainable governance of forest resources. Therefore, the existing deforestation and forest degradation crisis is attributed to the introduction of neoliberal ideologies to natural resources management (NRM) and conservation, which are characterized by externally imposed interventions and exclusions (Buscher et al., 2012).

Due to being top-down and costly, state control and market-based management of forest resources have failed to control public and private-owned resources (Ballet et al., 2007). Hence, global communities, especially in the south, have emphasized on community-based management approach as the appropriate alternative solution to forest resources governance (Oyeleye et al., 2018; Ponte & Noe, 2020). This need to formalize community participation in forest conservation has highly been promulgated with scholarly works such as those by Ostrom (Gari et al., 2017), which acknowledged the competence of communities to manage public resources. This further gained momentum during the 1992 United Nations Earth Summit in Rio de Janeiro, Brazil, to address the sustainability of resource utilisation in the global south. Since then, many countries in the global south have institutionalized community participation by mainstreaming it in their policies and legislative frameworks to allow for partnership in forest resources governance (Walle & Nayak, 2020; Barrow et al., 2016). However, despite the increasing institutionalization of community participation in forest conservation, sustainability in governance of community forests is still a problem in many communities. Therefore, there is a need to examine whether the institutionalization of community institutions in various contexts guarantees sustainable governance of community forests.

Community forest management agreement (CoFMA), as one of the community based forest resources governance approaches, has long roots in Zanzibar. Zanzibar started to implement community based natural resources management (CBNRM) since the 1990s (Williams et al., 1996). The

government of Zanzibar established the National Environmental Policy in 1992, which emphasized the importance of improving institutional and personal capacity in the conservation of natural resources (Majamba, 2005). The government started to involve local people in the conservation of forest resources when it realized that environmental problems—including deforestation, degradation and loss of wildlife—were increasing (Käyhkö et al., 2011) despite the inherited colonial and post-colonial conservation laws and policies that were in place. In 1995, the government introduced collaborative programs between local communities and government officials from forestry and wildlife units to conduct patrols to conserve community forests and wildlife (Williams et al., 2002). In 1996, the Forest Resource Management and Conservation Act No. 10 was introduced to fully involve communities in conservation programs (Majamba, 2005; Nunan et al., 2020). In 2010, the government of Zanzibar established the CoFMA.

The CoFMA was established with the perspective of achieving sustainability in the governance of forests through community participation, equity distribution of forest and wildlife resources, provision of economic incentives, as well as technology transfer (Benjaminsen, 2018). Thus, it was contended that the institutionalization of community participation would facilitate the requirements needed to attain sustainability in the governance of community forests. This paper seeks to understand whether the establishment of community institutions has guaranteed local community participation in CoFMA by addressing the following research questions: What is the form of community participation? What is the motive for participation? Has community participation initiatives in the conservation of CoFAs—such as community conservation meetings, enforcement of bylaws and monitoring—been sustained? Have local community members benefitted—and continue to benefit—from resource-sharing and stakeholder support? Has there been transfer of conservation knowledge? More so, has technological transfer been sustained?

So far, studies on community-based forest resources governance in Zanzibar (Eilola et al., 2014; Benjaminsen, 2018) have examined how actors make creative use of available resources from the established partnership practices, as well as examining the process of attaining CoFAs' rights. Other related studies in Africa include that of Acema et al. (2021), who assessed the institutions governing use and management of the Shea tree in the West Nile region of Uganda; while Bjärstig (2017) examined whether public-private collaboration leads to sustainable outcomes. Thus far, however, there is no study that has specifically examined issues of sustainability in governance of forest resources through CoFMA. This paper fills the gap by assessing whether the institutionalisation of community participation has achieved sustainability in the governance of CoFAs. In other words, it intends to understand whether

the formalizations of community institutions are community-based, and whether the established conservation initiatives are maintained in the governance of community forests. In this way, it unveils the extent to which governance initiatives to conserve community forests have been maintained.

Moreover, this paper aims to contribute to the debate on the relevance and practices of formalizing community participation in community forest resources governance in developing countries. The study findings reveal the position of global and state influences to achieve sustainability in the governance of community forest through CoFMAs. Besides, the findings show that the institutionalisation of CoFMA does not guarantee sustainability governance unless it is community-led, has reliable support, as well as having alternative livelihood strategies within a community. It is anticipated that the results generated in this paper will be vital for improving sustainability in the governance of community forest resources, and the improvement of policy on community resources conservation. Equally, it will make a theoretical contribution on the subject of forest resources.

1.2 Governance of Community-based Forest Resources: A Theoretical Perspective

Since the 1990s when Elinor Ostrom published her work on common property institutions and natural resources management (NRM) (McGinnis & Ostrom, 1992), there have been several theoretical and policy debates on CBNRM. Most of the emerging ideas advanced and complemented the work of Ostrom to show the importance of community formalization and as a social institution in NRM. One of the approaches in the studies that complement the work of Ostrom is political ecology; on which builds to analyse the impacts of decisions on the governance of community forests (Perreault et al*.,* 2015). The political ecology approach is relevant as it focuses to understand the impacts of political narratives on the governance of natural resources, such as forests. While the work of Ostrom focused on the power of community institutions on common resources governance, the political ecology approach focuses on analysing the decision-making at different levels in relation to socio- and political settings (Shrestha & Ojha 2017). The approach analyses the complex relation between nature and marginalized societies in the global south due to the political decisions made at different levels (Willis et al*.,* 2020; Pascoe, 2021). It analyses the effects of power imbalance and the interconnected factors at local, regional and global levels that affect decision-making processes in developing countries on resources governance, and thus determine sustainability in governance of resources (Wynne-jones et al*.*, 2020).

Under political ecology, state policies are developed as results of discussions between competing stakeholders pursuing to influence policy formulation.

However, the implementation and enforcement of policies to ensure long-run sustainability of established conservation strategies have mostly remained challenging. Since the 1990s, the global north has been influencing the content of environmental and economic policies of many countries in the global south to fulfil their interests (Bixler et al*.,* 2015). The Revolutionary Government of Zanzibar (RGoZ) has been changing her economic and conservation policies along with the ongoing structural adjustment programmes (SAPs) across the globe, sustainable development goals (SDGs), and climate change mitigation agreements. CoFMA, as a part of this global wave, has been adopted to ensure sustainability and effective governance of community forest resources. The approach has an impact on the access to, control of, and participation in the utilization and governance of community forest resources. Thus, community participation is emphasized to attain social justice in a resource allocation, economic improvement and sustainability, and health environment.

Shrestha and Ojha (2017) argue that political analysis is useful for the study of local decision-making processes and collective action due to increasing conflicts between global initiatives to promote CBNRM, while the discourse of global environmental change (GEC) promotes global change to encourage worldwide global approaches to environmental problems. Also, political analysis helps to understand the impacts of the political decisions taken at local, national and international levels to the environment and community livelihoods (Batterbury, 2001). More, it helps to understand actors who make decisions, enforce and monitor decisions; and those who are subjected to the decisions. The approach further gives insights on whether the processes and political decisions made determine sustainability in the governance of resources. It is these reasons that made the approach relevant for this paper's analysis in understand whether institutionalization of community participation promises sustainability in resource governance in the CoFMA.

2. Context and Methods

2.1 The Study Area

The study that yielded data for this paper was conducted in the South District of Unguja Island, located at latitudes 6° 10′ 30′ S- 6° 29′ 30′ S and longitudes 39° 23′ 30′ E-39° 34′ 30′ (Figure 1), with an area of 379.3km^2. Unguja Island lies off the coast of East Africa in the Indian Ocean, slightly south from the Equator (5° -6° 30′ S and 39°23′ -39°34′ E), and just 40km east from Tanzania Mainland. Out of 21 *shehias*[1] within the study area, six (6) were randomly selected for the study: Paje, Jambiani-Kibigija, Mtende, Kizimkazi Mkunguni, Kibuteni and Muyuni A. The random method was used because CoFMA is practiced in all the *shehias* in the district. Also, all *shehias* share the same culture, and are characterised by a coral rag vegetation.

[1] Smallest administrative area of local government in Zanzibar

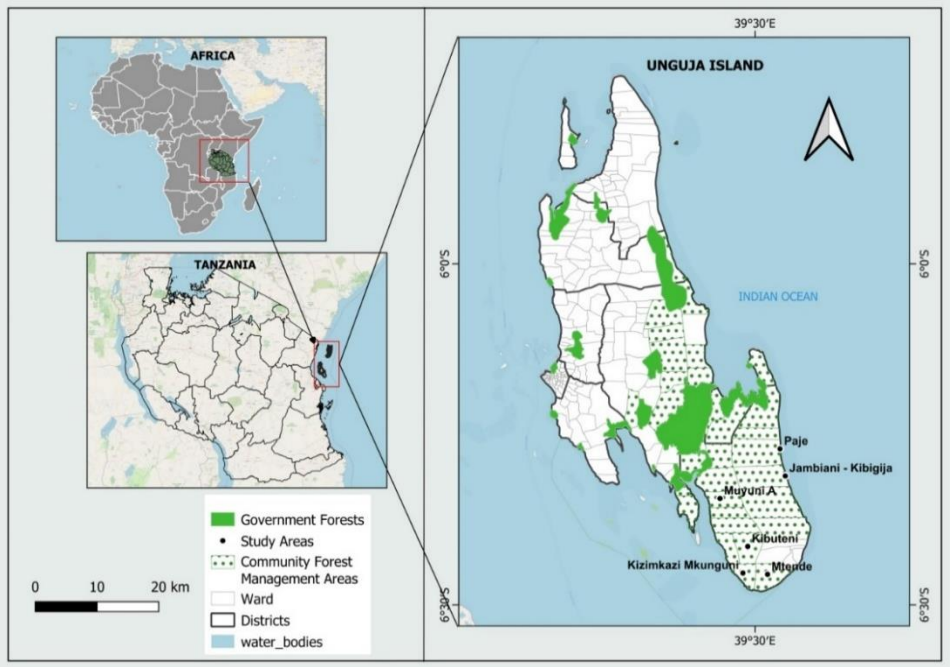

Figure 1: Location of the Study *Shehias* in the South District of Unguja Island

Source: Cartographic Unit, Department of Geography and Environmental Studies, University of Dodoma, 2022.

The natural vegetation ranges from bush, shrub forest to high forest (Kukkonen & Niina, 2014). It is mostly dominated by *Albizia* and *Diospyros* species. This natural vegetation is identified as part of the larger biodiversity hotspot of the East African Coastal Forests, and is commonly known as the habitat of the Zanzibar mini-antelopes and other wildlife populations (Borghesio & Ndang'ang'a, 2003; Siex, 2011).

2.2 Data Collection and Analysis

2.2.1 Structured Interview

The structured interview method was used to collect data from local communities to examine their involvement and perceptions in the various steps of establishing CoFMA. This entailed assessing the involvement of local people in establishing agreements and the formulation of bylaws, and participation in monitoring and patrol of community conservation forests. Structured interviews were also used to investigate the implications of CoFMA on forest and wildlife resource conservation, as CoFMA integrate conservation of both forests and wildlife. A total of 323 household heads were proportionally and randomly selected from the six (6) selected *shehias* for the interviews. The IBM

Statistical Product and Service Solution (SPSS), version 23, was used to analyse quantitative data to understand frequency distribution, central tendency, and association among the variables.

2.2.2 In-depth Interview of Key Informants

In-depth interviews were conducted to 27 key informants (KIs), who included six (6) chairpersons/secretaries of the community conservation committees, one from each selected *shehia*; six (6) local leaders, one from each selected *shehia*; six (6) local elders, one from each selected *shehia;* six (6) local hunters, one from each *shehia;* and three (3) officials from the Department of Forestry and Non-renewable Resources. The method was also used to collect information about procedures followed to establish CoFMAs, local people's involvement in CoFMAs, and the benefit-sharing mechanisms of forest resources. The content analysis technique was used to analyse information from in-depth interviews (Kitchin & Tate 2013).

2.2.3 Review of Documents

Several documents—including policies, acts and legal agreement of Zanzibar that are relevant to guiding or influencing the conservation and management of land, forest resources, wildlife and rural development—were reviewed. These documents include the Land Policy and Acts (RGoZ, 1992), Environmental Policy (RGoZ, 2013), and the Forest Resource Management Act of 1996 (RGoZ, 1996). Others consisted of the Constitution for Community Forests Conservation Association of Zanzibar (JUMIJAZA, 2014), COFMAs Village Contracts, and other legal documents. These documents were reviewed to get information on how the legal framework has been influencing the establishment of CoFMAs, guidelines of CoFMA processes, community participation, forest and wildlife governance, and how it has been addressing community livelihoods. The documents were obtained from different sources, including the Department of Forest, Cash Crops, and Non-Renewable Resources of Zanzibar; Department of Land Survey; General Library of Zanzibar; and from online search engines such as Google, Google Scholar and Free Full pdf. The advantage of document analysis is that the resources contain official information that is stable, which can hence be reviewed repetitively.

3. Results and Discussion

3.1 Establishment of CoFMA and Participation Processes

In all the studied *shehias*, the interviewees reported that CoFMA was a project brought in by the government through the Department of Forest (DF). Similarly, the official from the DF reported during an interview that CoFMA was a donor-funded project aimed at conserving community forests for climate change mitigation. This broad objective of CoFMA is linked with the global initiatives during the 1990s when the United Nations Framework Convention on Climate

Change (UNFCCC) established the Kyoto Protocol in 1997 to reduce greenhouse gases (GHGs) emission from anthropogenic activities (Lau et al., 2012). Among the suggested mechanisms were clean development mechanism (CDM), joint implementation, and emission trading. These were initiatives later followed by the Copenhagen Accord in 2009 in the Conference of Parties (COPs), which set to deliver financial support to the most vulnerable developing countries for combating climate change either by mitigation or adaptation efforts.

In the context of Zanzibar—and particularly in the South district of Unguja—community forest conservation efforts were integrated with wildlife conservation to achieve a broader comprehensive goal of both forest and wildlife resources conservation. The official from the DF further reported that, prior to CoFMA, the government of Zanzibar had entered into discussions with donors from the global north on how CoFMA should be created to establish CoFAs. CoFMA was established following the consultations and some agreements. Benjaminsen (2018) maintains that the conception to establish CoFMA originated from the central government under the influence of north-south partnership in resource conservation. The idea to establish CoFMA, therefore, is one of the global agendas to conserve forests, which is to be implemented in the developing countries to mitigate climate change.

The establishment of CoFMA followed existing legislative frameworks (Forest Resource Management and Conservation Act No. 10 of 1996, and the CoFMA constitution); all of which are inherently post-colonial perceptions of natural resources conservation (Majamba, 2005). After the creation of CoFMA, guidelines were developed to allow local communities to participate in the implementation of the programme. Among the guidelines were the right of communities to own community land for development and establish conservation forests, the establishment of community conservation committees (CCCs), and the enactment of community bylaws appropriate to local community environments. The CoFMA guidelines were made to ensure sustainability in the governance of forest resources. It is at this stage that DF officials visited *shehias* and prepared meetings. The CCCs were established during *shehia* meetings under the facilitation of officials from the DF, where their members were also selected.

One among the main responsibilities of the CCCs was to represent communities in decision-making processes. However, CCC members lacked mechanism to facilitate effective involvement of the majority community members in decision-making processes. Instead, they made decisions on behalf of their communities. Ponte et al. (2020) also found that local communities in rural areas in Southern Tanzania did not actively participate in decision-making processes concerning natural resources management despite the claim that there was participatory governance of natural resources. This low

community representation translated into the exclusion of the interests of many community members since the CCCs were more likely to consider the interests of outside community pressure group(s), including the government and donors. CCC members attended meetings without presenting the common interest of their communities; and also most of them lacked the capability to debate with government officials. All these compromised community participation and sustainability of resource governance as most of the decisions did not consider the norms and plans of the larger community.

The communities were also asked to establish conservation community groups to plan and manage land in their respective areas without prior detailed information on the goals of CoFMA. During interviewees, many participants reported that the goal of CoFMA was just to conserve forests; and failed to link it with the main objectives of CoFMA, which were climate change mitigation through carbon trade, and the provision of alternatives sources of livelihoods. Similarly, many of the interviewees were not able to understand what carbon trade mean. The few individuals who tried to explain the concept of carbon trade said that the community will get money if they will conserve their forest. Also, those who could explain it did not indicate that there must be an assessment to understand the extent of the carbon to trade. Hence, this modality of CoFMA establishment, which just involved the consultation of community to implement preconceived ideas, compromised the sustainability of many conservation initiatives, and in turn the sustainability of the governance of resources. This corroborates the explanation by Pascoe (2021): that various conservation initiatives in developing countries failed because of the lack of persistence of established initiatives and encouragement from government and other stakeholders to keep the community organization operational. This situation has probably contributed to the fate of the unsustainability of various activities in the governance of community forests in Zanzibar.

3.2 Local People's Participation in Various CoFMA Activities

Participation in the various CoFMA activities has implications on the sustainability of the governance of community forests. It was, therefore, of interest to know how the local community participated in such activities as community conservation meetings, formulation and enforcement of bylaws, forest patrols and monitoring, and others. The results on Table 1 show that the majority of the respondents had low participation in almost all aspects of CoFMA, including decision-making over the use of their forest resources. Instead, few influential community members—mostly local leaders, educated members, politician and some of the CCC members—in collaboration with government officials, planned and made decisions on behalf of the rest of the community. These findings correspond to Creamer (2017), who also found low involvement and participation of local people in various activities of the governance of forest resources. The sub-sections that follow provide details on community participation.

Table 1: Local People's Participation in Various Aspects of CoFMA

Conservation initiatives in CoFMA	Yes (%)	No (%)
Participation on community conservation meetings	33.4	66.6
participation in formulating and passing bylaws	31.3	68.7
participation in establishment of zones in community land	24.8	75.2
Reporting incidences of illegal harvest of forest and wildlife resources	20.4	79.6
Willingness to participate in patrol and observation	35.0	65.0

3.2.1 Conservation Meetings

Community conservation meetings are one of the important platforms to share information among communities themselves, and between communities and officials from the DF. There is little evidence to suggest that the majority of local communities are participating in community conservation meetings (Table 1). Some of those who did not attend the meetings claimed that they are not encouraged to attend meetings as they feel decisions made do not reflect the views of the local communities, and in most cases they are considered as opponents of conservation ideas. This means that conservation ideas that dominated the CoFMA establishment were from people outside the communities as local communities had no chances to provide alternative ideas. Most of the people who attended conservation meetings were members who had leadership roles/positions in the CCCs. These findings correspond to those of Eilola et al. (2014), who also found that local participation in *shehia* conservation meetings was low for most of the inhabitants.

Furthermore, various leaders of CCCs reported that during the beginning of CoFMA there were regular meetings that were conducted between government officials and the local communities. During this study, however, many of the interviewees reported that there were no regular conservation meetings that were being conducted by CCCs anymore. This suggests limited means for sharing of information on the conservation of community forests. The leaders further explained that government officials—who used to visit CCCs to share and discuss conservation information and strategies—were no longer doing that. During in-depth interviews, one of the government officials from the DF reported that they were not frequently visiting CCCs because there were insufficient funds. However, they claimed that they were still communicating with the committees and responding to conservation problems presented to them by the CCCs.

3.2.2 Establishment and Enforcement of Conservation Bylaws

As mentioned earlier, bylaws were enacted for effective conservation and management of forest and wildlife resources during the establishment of CoFMA in the South District of Unguja. Based on the CoFMA contract, each

community was required to make bylaws through *shehia* general meetings. Bylaws provide a framework for utilizing resources, implementing benefit-sharing and enforcing conservation by controlling human behaviours (Harrison et al., 2015). Mwankupili and Msilu (2020) explained that community participation in Tanzania is mainstreamed in the legislative framework that provides the establishment of bylaws to guide the approach of participation. The results in Table 1 suggest limited platforms for active community participation in formulating bylaws during the establishment of COFMA. Such low participation could be explained by the fact that communities were not much informed, or were not aware, of the importance of their participation in formulating bylaws. In the absence of active community participation in the formulation of bylaws, decisions were made by few people with assistance from technocrats, hence denying the majority the rights to influence conservation agenda. Roeet al. (2009) also found that most of the conservation structures in the Central African Republic, including the formulation of bylaws, were established by formal conservation programs with low level of local people's involvement and ownership.

During in-depth interviews, various CCC and community leaders reported that the established bylaws were enforced when there was monitoring by government officials. It was the CCC members who were entrusted to enforce bylaws and make supervision to ensure community members adhere to them. However, of recent, no one was complying with the bylaws because there was no more supervision. Community members were utilizing resources just like before the era of CoFMA, and most of them claimed that the bylaws were disagreeable as they excluded them from utilizing resources in their vicinity. Some community members were unwilling to support the non-utilization of resources from the conserved community forests. As observed by Osunsina and Fagbeyiro (2015), rules and regulation restricting communities to utilize natural resources have often been disagreed by some community members.

Most of the leaders of CCCs revealed that the bylaws had not improved the protection of mini-antelopes, but only slightly reduced the deforestation of community forests. It was found that mini-antelopes in the community protected forests were still hunted illegally. Many of the local hunters neither requested hunting permits from the CCCs, nor followed hunting seasons as per the wildlife ordinance of Zanzibar (National Zanzibar Law, CAP 128). The hunting of mini-antelopes was mostly being conducted during night time by using muzzleloader. One of the local hunters narrated thus:

> *Do you want the truth? We cannot stop hunting mini-antelopes from the conserved community forests because we get money from hunting. We also get meat for our families* (KI from Paje, 17th August 2020).

This view of a Paje local hunter is held by another local hunter from Kizimkazi Mkunguni community, who claimed:

> *Nowadays, people are not only hunting mini-antelopes, some people hunt pythons. The skin of a python is sold, but also some people sell live pythons to people who own zoos* (KI from Kizimkazi Mkunguni, 19th August, 2020).

The above narrations are a clear indication that the enforcement of bylaws was weak. This could be explained by the low participation of the community members in the formulation of these bylaws as revealed in Table 1. As a result, illegal hunting of the mini-antelopes has continued unabated. This, however, was not the case in Zimbabwe where Gandiwa et al. (2014a,b), and Gandiwa et al. (2014), found that the number of illegal hunting cases had declined due to established rules; and community members had also helped in maintaining large herbivore populations inside the protected areas. Correspondingly, communities in Zambia were first sensitized on the importance of wildlife and forest conservation, and then being highly involved in the formulation of bylaws. This is all contrary to what happened in the establishment of CoFMA in Zanzibar, where community sensitization and participation was low.

3.2.3 Patrols and Monitoring of Community Forest Resources

Community members' expected benefits from participation in communal endeavours can play a crucial role in motivating the management of forest resources. In the study area, it was members of the CCCs who were responsible for conducting regular patrols to monitor resource utilization activities, and control illegal harvesting of forest resources and wildlife. Although conservation meetings were conducted to promote communities to volunteer in patrols and encourage individuals to report illegal activities of resource utilization, the findings from the structured interviews indicated that the majority of the respondents (65%) from the studied *shehias* were not willing to participate in patrols and field observations (see Table 1). Key informants interviews revealed that community members would be more likely to participate in forest patrols if there were potential expected benefits, such as financial incentives for conducting patrols, which were was not provided. Most of the interviewed respondents said that they were not willing to participate in patrols because they were not paid.

Furthermore, community members were mobilized to report any degradation incidences such as deforestation and illegal hunting that they might encounter in the conservation forest. Every community member was deemed responsible to report such incidences to the CCC, which had even designed a special form of recording/reporting such incidences; and thereafter report these to higher authorities for further action. The findings in Table 1, however, reveal that the majority of the respondents had never reported any illegal incidence to the

CCCs. Only 20.4% of the respondents had reported illegal incidences. The low percentage of respondents who reported illegal incidences may not necessarily mean that there have been few illegal incidences of degradation. This could mean that there were either few incidences of illegal utilization of resources because the local communities were abiding to the bylaws, or that the local people did not want to report their fellow villagers. However, even the few that reported such incidences claimed that there were no actions taken with regard to those involved in the incidences reported. It was further reported that community members were not afraid of CCC members: they only worried about officials from the DF. Studies by Harrison et al. (2015), and Thi et al. (2016), show that local people were mostly reluctant to report their fellow community members who were found utilizing resources from conservation areas to avoid enmities/conflicts with fellow community members.

3.2.4 Technology Transfer in CoFMA

Government officials from the DF reported that one among the issues agreed in CoFMA was to transfer the required technology from the global north to the developing countries. Accordingly, information technology (IT)—particularly knowledge of geographical information system (GIS)—was identified as important. Technology transfer is one of the aspects believed to be important for achieving sustainability in the governance of natural resources (Rist et al., 2007; Bjärstig, 2017). This study found that partners from the global north mentored a few government personnel to use modern technology in zoning of land, and to prepare land-use maps. The trained personnel transferred the knowledge of zoning land use to a few members from the local communities.

However, the study found that the mode of technology transfer in CoFMA emphasized scientific knowledge and excluded social learning processes, which are important for sustainability in the governance of resources. Technology transfer involved the use of geographical information system (GIS), where a few local people from each *shehia*—particularly members from the CCCs—were taught to record coordinates by using geographical positioning system (GPS) gadgets. The coordinates were used to prepare land-use maps. Rist et al. (2007) point out that there has been a growing concern to overcome unilaterally privileged scientific knowledge and Western rationalistic argumentation because they are ineffective for sustainable governance of natural resources. The local communities were required to be capacitated with soft skills that would equip them with leadership skills, problem-solving, critical thinking, teamwork, career management and professional attitudes to attain sustainability in governance. Grashuis and Dary (2021), and Wang (2016), point out that sustainability will not be achieved by only finding technical solutions, but also requires changes in the habits and the mindsets of the people.

This study found that there were no special programmes conducted to train community members. Meanwhile, even the trainings provided were short: just enough to fulfil the requirements of producing land-use maps. In each *shehia* under CoFMA, community land was divided into (i) alternative use land, (ii) conservation area, and (iii) utilization zones. Conservation areas were allocated for conservation use only; while utilization and alternative use land were allocated to provide livelihood services to the community. Many community members did not participate in this exercise because communities were represented by CCCs in making decisions. Results from the structured interviews show that only 24.8% of the interviewed respondents participated in the process of zoning community lands. Besides, the CCCs were collecting communities' opinions through meetings where conservation planning was discussed, which were, however, not attended by the majority of community members. Hence, local communities who participated in training and zoning of community land were very few. Consequently, many people did not agree with utilization plans of resources. Rist et al. (2007) argue that collective action of involving a whole village in learning through monthly follow-up meetings and workshops improves sustainable resource governance.

Although community lands have been divided into zones for specific use of land, it was found that the utilization of resources was not according to what was agreed upon during formal community meetings, and as set in the bylaws. This was due to the limited participation of local community in land-use planning. The establishment of utilization zones, however, has resulted in discrete parcels of forests that are not suitable for habitat conservation of mini-antelopes. For instance, every member of the community is free to exploit forest resources to meet his/her needs in the utilization zones. There is no maximum limit of exploitation that has been prescribed; instead, over-exploitation is only controlled by prohibiting the use of vehicles for carrying firewood and charcoal from forest areas. Moreover, the establishment of zones for each community land has caused some disputes in resources utilisation; inter- and intra- the communities. The nature of the disputes between communities include disagreements on the boundaries of land zones; and disagreements on the established bylaws that protect (prohibits/controls) community members in utilizing forest resources in community forests. Meanwhile, the established CCCs have not been capacitated to resolve emerging disputes.

3.3 Resource Benefits-sharing and Stakeholders' Support

In all the studied *shehias*, forest benefits-sharing and stakeholders support have been found to be one of the motives for communities to participate in the conservation of community forests and wildlife. The communities were promised by the government that they would receive some amount of money from donors to support their livelihoods if they allocated their community land

for conservation. According to Melzer et al. (2019), financial motivation to support people's livelihoods influenced communities to establish community forest management areas.

The major complaint from community members in this respect was that the financial benefits they had been promised if they established CoFAs were unfulfilled (Benjaminsen, 2014). The findings from the structured interviews revealed that the majority of the respondents (93.2%) had never received any financial support (assistance) in this regard. This was mainly because there were insufficient funds to assist every individual in the community. However, the official from the DF argued that communities would only receive money after assessment and realization that their forest had increased, and the amount of money that they were to receive would depend on the amount of carbon that would be sold. The official emphasized that they encouraged communities to share the benefits which they received from their daily use of resources from the utilization areas, such as selling firewood, charcoal and poles; and the income obtained from hunting permits in the utilization areas. However, the study unveiled that there were no user fees charged from resources utilized by community members, which could have been another source of community income. The communities had great expectations to improve their livelihoods, but they were disappointed when they realized that there was no money for this. It seems there was a communication breakdown: most of the community members did not understand the details on how the benefits would be garnered and then distributed.

The importance of benefits-sharing and stakeholder support, however, was better realized in Mtende community, one of the six study *shehias*. Officials from the DF had mobilized the Mtende community to sign a contract with an investor—the Zanzibar Wildlife Hunting Safari (a private company)—for the conservation of mini-antelopes in the community forest. The company was engaged by the officials to invest in eco-tourism and trophy hunting. Here, the whole initiative was being managed by the community members themselves, as a community-led conservation programme. Under that contract, the community of Mtende—through their Conservation Committee—was responsible for guarding the habitat (community forest) and antelopes within the designated zone. The investor, on the other hand, was responsible for providing technical support on conservation, monitoring, developing infrastructure, as well as advertising the park. According to Masoud (2003), the terms of the contract required that the investor would only be allowed to conduct trophy hunting if the community committee was satisfied that there were enough antelopes to be hunted. The investor had been paying TZS10,000,000 (equivalent to USD4338) for hunting one Aders duiker; and TZS600,000 (equivalent to USD260) for one blue or suni antelope.

The conservation community of Mtende had been receiving 35% of revenue for each hunted Aders duiker, and 50% of the revenue for a blue or suni antelope. The rest of the money was sent to the central government as revenue from the wildlife resources as per the government guidelines. In addition, every year the investor was paying to the community TZS 2,000,000 (equivalent to USD 867.5) as a contribution for community development projects. The revenue received was kept by the CCC accountant for community development. Since the Mtende community had a reliable source of revenue from the conservation of antelopes, they managed to prepare a benefits-sharing scheme. During interview with the secretary of the Mtende CCC, it was revealed that the money was distributed to three groups: the community development committee; forest conservation committee, and the marginalized groups such as elders, orphans and widows. Due to the benefits derived from this conservation initiative, the Mtende *shehia* managed to construct a fully equipped computer laboratory, which was being used to train information and communication (IT) skills to students within their community.

Hence, the benefit-sharing scheme in the Mtende *shehia* contributed to the increased conservation awareness of the community compared to the other five studied *shehia* that did not have a conservation program to share benefits with an investor. In contrast with the other *shehias*, the secretary of the Mtende CCC reported that many people were willing to participate in patrols and field observations because they expected to receive money as motivation for their participation. This provides evidence that community members are motivated to participate in conservation when there is financial support that helps them support their livelihoods. Selinske et al. (2017) argue that financial motivation is commonly used to improve conservation of natural resources by increasing individual interests to participate in conservation activities. In a poor community, conservation of forest resources is difficult when there are no reliable/ alternative sources of income, and especially when community members heavily depend on forest resources to earn their living.

4. Conclusion and Recommendations

Community participation has been institutionalised to govern forest resources within community forest management areas in Zanzibar. The existing legislative framework that was established to involve communities in forest management has been used to establish CoFAs; meanwhile as the local community was meant to participate following the establishment of CoFMA guidelines. However, the establishment of CoFMA was not a people-centred approach of conservation; instead, it was a conservation approach to implement broad policy objectives of international interests rooted in the global north. Although the objective of CoFMA was to fully involve communities in all aspects of implementation of conservation, community members were not fully

involved. Many decisions were made by government officials from the DF and the CCCs. Also, the majority of community members did not participate in many of the stipulated CoFMA activities, such as in conservation meetings, formulation of bylaws, land-use planning, as well as forest patrols, among others. Instead, the CoFMA approach brought disagreements among community members on conservation.

Moreover, contrary to the expectations of community members in the studied *shehias,* there was no resource benefits-sharing and stakeholder support, which would have enhanced the livelihoods of the people, with the exception of the Mtende *shehia*. All these facts militate against the sustainability of the governance of forest resources under CoFMA in the studied *shehias.* The results of this study, therefore, affirm that the institutionalization of community participation does not guarantee sustainable governance of CoFAs. Community based natural resources governance will only be sustainable when the communities are motivated to participate in conservation, and the objectives of conservation are well communicated to the community. This can be seen in the case of the Mtende *shehia*, where community members benefitted from the conservation initiative of mini-antelopes. As the community of Mtende signed a contact with a private company to conserve mini-antelopes, they have managed to receive funds from the hunting of antelopes, thereby managing to set up a benefits scheme for community development. Hence, the government, conservationists and other development partners should seek ways to capacitate communities to establish income-generating conservation projects, and/or establishing reliable alternative sources of income to meet their needs, as was the case with the Mtende *shehia*. Also, conservation initiatives should integrate ecological knowledge and social norms; and participation processes must be localized to comply with community needs and demands as well.

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