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## A SWOT analysis of community-based forest management policy as a basis for REDD+ in Tanzania

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### Abstract

In developing countries, the failure of the policing model of forest management whereby the central government protected forest reserves by preventing local communities from using them led to the emergence of the Participatory Forest Management (PFM) policy. In Tanzania, PFM takes two main forms; Joint Forest Management (JFM) in which central government or district council owns the forest and the local people are involved in conservation. Community Based Forest Management (CBFM) policy as the second form whereby community is given the right to own and use the forest in the general land. The paper discusses the strengths, weaknesses, opportunities and threats of the policy of community -based forest management in Tanzania. Among the strengths are the government structures with strong village's administrative structure, willingness of people to participate in CBFM initiatives, community-village collaboration and ecological sustainability. The fact that the approach is exogenous both in conception and funding, inadequacy of technical knowledge at the community level, inequality in cost and benefit sharing, poor infrastructure and poor governance of revenue accrued from CBFM are seen as weaknesses of CBFM. Opportunities for CBFM include appropriate national policies and international conventions, and the existence of vast forest areas on general land that provide room for the implementation of the CBFM activities. Threats to CBFM include; conflict of interest with the district and higher-level government, poor governance, and human-wildlife conflicts. The paper concludes by suggesting the way forward for tapping the strengths and opportunities of CBFM and addressing its weaknesses and threats.

**Keywords:** Governance; Local communities; Participatory Forest Management; Policy; REDD+; SWOT analysis

### 1 Introduction

In Tanzania, forest policy categorizes forests into reserved and non-reserved forests [1, 2]. The forest reserves are under the legal authority of either central government, district councils or village government, private companies or other organizations [3, 4, 5, 6]. Reserved forests are either designated for production such as for timber, fuelwood, building poles and charcoal making or protection of catchment and biodiversity values. Access to reserved forests is restricted by management procedures stipulated for a given forest. The non-reserved forests on the other hand are freely accessed by anyone within the community. They are important to the livelihood of the surrounding community for the provision of cultural monument, traditional medicines, fuelwood and wild food. This has resulted in over exploitation of non-reserved forests leading to decline of the forests [7]. In some cases, overuse of the non-reserved forests and the resultant resource depletion has forced forest users to invade the reserved forest [8, 7].

In the past forest policy excluded people from using and accessing the reserved forest by law and through supervision from the forest division staff. The forest policy of 1998 and forest act no. 14 of 2002 have opened a way for changes in forest conservation and management [6]. The policy has included alteration in the roles of the forest department, local

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communities and other forest stakeholders such as NGOs. The policy has handed more authority to the local communities to manage the forest with the logic that the local communities reside on the ground adjacent to the forest resources [9, 10, 8, 11, 12] and require the forest for their livelihood [13, 14, 15, 16, 6] and have long term interests in the forests [10, 8]. This more participatory approach to forest management has been termed Participatory Forest Management (PFM) [17, 18].

In mainland Tanzania, PFM was formally introduced following the enactment of the Forest Act No. 14 of 2002, which provides a clear legal basis for communities, groups or individuals to own, manage or co-manage forests under a wide range of conditions [1]. The main stakeholders under PFM are the community, the government and NGOs [6]. The law recognizes two forms of PFM, namely: (1) Community- Based Forest Management (CBFM) and, (2) Joint Forest Management (JFM) [19, 6]. CBFM refers to any forest management regime in which local community are given legal right of ownership and management over a forest on village or private land [19, 6]. CBFM provides a legal framework for village governments to assume control and management of forest areas [19, 6]. In this case the owner (local community) is supposed to carry most of the costs and accrue most of the benefits relating to management and utilization while the role of central government and district authorities is only monitoring [19, 6]. On the other hand, under JFM there is no shift of ownership of the forest to the community but instead are set management agreements between the community and the owners of the forest that may be the government or other entities than the community. Under the agreements, the community is given the right to manage the forest. In most cases in CBFM in Tanzania, local communities are represented by a village as a legal entity [20, 21, 22]. Given the growing interest in CBFM coupled with some of the administrative obstacles associated with the formalization and benefit sharing in JFM, CBFM overtook JFM in terms of forest coverage in Tanzania ( MNRT, 2022). By 2022, about 2.2 million hectares of forest in about 988 villages of mainland Tanzania are under CBFM [6].

Reducing emissions from deforestation and forest degradation and enhancing forest carbon stocks in developing countries (REDD+) has been recognized as a viable option for addressing climate change [23, 24, 7]. REDD+ can potentially facilitate large reductions in greenhouse gas emission by compensating forest owners and users for lost forest income and livelihood opportunities [23]. Tanzania is a UN-REDD Programme Partner Country, and a member of World Bank's Forest Carbon Partnership Facility (FCPF) [23]. Tanzania signed a five year (2008 – 2013) bi-lateral agreement with Norway in 2008 that provided funding (NOK 500 million) for REDD+ readiness activities, pilot projects and policy reforms [23]. As of 2013, there were nine national and international NGOs implementing local REDD+ pilot projects in the country (REDD+ Initiative in Tanzania, 2013). By the end of 2014, seven REDD+ pilot projects were completed according to plans [25]. The REDD+ pilot projects were implemented using villages as the legal entity and CBFM as the policy for participation of local communities [23, 26, 25]. This approach has its strengths, weaknesses, opportunities and threats as implied by existing studies that have not explicitly termed them this way [23, 26]. The aim of the current paper is to explicitly assess those strengths, weaknesses, opportunities and threats.

## 2 Material and methods

**Table 1** SWOT Analysis

Strength	What are the strong points about the CBFM?
	What has CBFM done better than some similar approach if any
	What unique characteristics does the CBFM possess?
	How do people understand the CBFM?
Weaknesses	What are the weaknesses of the CBFM?
	What do similar projects do better?
	What could the CBFM do better at this point?
	What do studies, others, and the study perceive as the weaknesses of the CBFM?
Opportunities	What opportunities are there for the CBFM?
	What conditions/issues may improve CBFM?
Threats	What weaknesses that may negatively impact the CBFM?
	Does the CBFM have solid finance?
	What are some of the conditions that may impact negatively on the CBFM?

Source: Authors' Analysis

The analysis focuses on mainland Tanzania. The method of analysis is SWOT, which analyses strengths, weaknesses, opportunities and threats [27]. Strengths and weaknesses are aspects that are internal to the object of study, in this case CBFM. Strengths are positive aspects while weaknesses are negative aspects. Opportunities and threats are positive and negative aspects respectively that are external to the object of study. All the analysis is based on examination of the existing literature and the approach to the literature analysis is indicated in Table 1.

## 2.1 Strengths of CBFM

### 2.1.1 *Advantageous status of villages as a basis of CBFM*

In Tanzania, villagisation took place in 1975 under socialism regime [28]. The socialism government formed by the first president of Tanzania the late J.K Nyerere passed legislation providing space for the creation of the village assembly, which comprises all the adults in a village, and village councils comprising of 15 to 25 elected representatives headed by village chairman [20]. The village council is powerful organ in the village and is concerned with all matters pertaining to resource management, allocation and distribution. The village council is linked to the central government via district council and reports all its affairs to the district council, including approval of bylaws [29].

Similarly, the Forest Act No. 14 of 2002 [2], makes a detail reference to the development of bylaws by village council through legal provisions issued under the local government Act No 7 of 1982 [30]. The forest act strengthens the role of village council through formation of village forest committee [13]. The village council is responsible for sub-committees of the overall village council and village [20]. The Village Natural Resource Committee (VNRC) that reports regularly to village council is central institution for the management of forest resources within and around the village [6]. CBFM utilizes the village council to manage land on behalf of the village assembly, and its tasks include land demarcation and allocation [29].

Generally, the villages have gained a lot of experience in governance issues through the years. Villages have been the centre of organization for production activities, security issues and social and cultural events [28]. Especially during early stages of villagisation, production used to be organized at the village level. There used to be village production projects including a village farm and the supporting equipment such as tractors and Lorries. Initially these projects were very successful. There was also training for security at village level (called “*mafunzo ya mgambo*” in Kiswahili). The training involved every villager who was at least 18 years old. Villages were also involved in implementing adult literacy programmes for adults who had not had opportunity to attend school while they were small children. Although these activities have deteriorated in quality and quantity in villages over the years, their legacy is still strong in the hearts of the people and the potential of the village to be used as unit of organization that was demonstrated during the period of strong village involvement is still there [31]. Villages being the unit of organization and institution with defined local governance structure have simplified the implementation of CBFM activities in most places of mainland Tanzania [32, 6].

### 2.1.2 *Presence of right policy and legal frameworks to support CBFM*

For more than two decades, the government of the United Republic of Tanzania through the Ministry of Natural Resources and Tourism (MNRT) has supported and promoted the implementation of Community Based Forest Management (CBFM) undertakings in various parts of the country [6]. Through the National Forest Policy (NFP) of 1998 and the Forest Act. No. 14 of 2002 together with accompanying regulations and guidelines, the government has put the right policy and legal frameworks to support CBFM in Tanzania [33]. The Forest Act No. 14 of 2002 [2], makes a detail reference to the development of bylaws by village council through legal provisions issued under the local government Act No 7 of 1982 [30]. The forest act strengthens the role of village council through formation of village forest committee [13]. The village council through village natural resource committee is the central institution for the management of forest resources within and around the village [6]. CBFM utilizes the village council to manage land on behalf of the village assembly, and its tasks include land demarcation and allocation [29]. For the purpose of taking advantage and capitalizing on the positive outcomes associated with CBFM in terms of improved forest conditions and community livelihoods for the betterment of Tanzanians, the government through the MNRT has recently launched a long-term strategy (2021-2031) for implementing the National forest policy (NFP). This is termed as the National Forest Policy Implementation Strategy (NFPIS) of 2021. NFPIS demonstrates the government commitment to realize the main objective of the NFP that is to enhance the contribution of the forest sector to the sustainable development of Tanzania and the conservation and management of her natural resources for the benefit of present and future generations through various forest management regimes including CBFM.

### 2.1.3 Willingness of people to participate in CBFM

People in Tanzania have accepted CBFM positively and readiness of the community to take power over forest has been empowered by knowledge shared from the government and other stakeholders such as NGOs. The indicators of willingness of people to participate in CBFM include the lack of demonstrations and organized resistance against CBFM, free participation of people in CBFM activities such as forest patrol and the large number of villages and districts that have started CBFM projects. Over 2.6 million hectares of forest were within established VLFs and that 1,225 villages were participating (Table 2) [34]. Villagers are motivated to take part in CBFM because of they perceive conservation to be good for them and want continued availability of forests and their products and services [35].

Furthermore, there is no recorded evidence of resistance of the community to participate in CBFM activities once they are approached by facilitating organizations' officials. For instance, for Duru- Haitemba forest Babati District, Tanzania the community invests labour and observes rescheduling of current consumption in favour of long-term benefits. The villagers maintained a moratorium on harvesting live wood, and deferred benefits for up to ten years, to allow the forest to recover [36]. It was also explained by [20] that in case the communities know their rights and benefits from CBFM, there is evidence that they are ready and able to defend them, through active patrolling of forest areas, arresting and fining of illegal forest users and the confiscation and sale of forest produce and equipment.

In other countries like Cameroon, [37] have reported an experience from the Kilum-Ijum community who has demonstrated that their forests are more valuable than cash to the extent that they voluntarily contribute considerable time and effort to long term forest management, in favour of converting them to more immediately rewarding land uses. This is a clear change of attitude. Under ordinary circumstances, communities see forests as government resources, and generally value what they can get out of it for their immediate needs without consideration of consequences. In contrast, CBFM is evidently enabling communities to animate their efforts to plan together with long-term development commitment [36].

**Table 2** Extent of CBFM Forests in mainland Tanzania

CBFM parameters	Value
Number of villages with CBFM established or in process	988
Forest area covered by CBFM (ha)	2,689,342.31
Number of declared village forest reserves	685
Number of CBFM gazetted forests	67
Number of villages with certified forests under FSC group certification	15
% of villages with CBFM in Mainland Tanzania	9.39%

Source: Adopted from [6]

### 2.1.4 Community collaboration

Collaboration is the centerpiece of any collective action arrangements. CBFM establishment needs collaboration among communities in order to make it operational [38]. The collaboration is needed in setting out or recognizing boundaries of different village forests and in ensuring that neighboring villages do not undermine forest conservation that is carried out in one village. The existing collaboration among villages has made it possible for demarcation or recognition of village forest boundaries and for village forest protection. Mgori Forest Reserve in Singida district central Tanzania demonstrates a good example of community collaboration among five villages [39]. The villages include Pohama, Ngimu, Unyampana, Mughunga and Nduamughanga villages. The five villages reached an agreement of managing the forest and agreed to mark their forest boundaries by using paint on the trees, rocks and stones to indicate their part of the forest (village forest reserve). They prepared village forest management plans to guide them in their daily patrols of the forest. The five villages have formed a joint Mgori Forest coordinating committee that meets two or three times a year to discuss matters pertaining their forest. Additionally, Masito Community Forest Reserve (MCFR) in Kigoma Tanzania is another example of community collaboration where by the forest is managed by JUWAMMA (which is swahili for *Jumuiya ya Watunza Msitu wa Masito*), which is a Community Based Organization in which seven villages collaborate [40, 41]. JUWAMMA comprise members from seven villages namely, Ilagala, Kirando, Songambebe, Lyabusende, Sunuka, Karago and Sigunga. Specifically, members of JUWAMMA comprise five members of Village Environmental Committees from each of the seven villages making the total of 35 members. JUWAMMA was formally launched on 2011 and it has a functional constitution [41]. General Council that oversees three committees, namely, the Defense and Security

Committee, the Central Committee and the Planning and Finance Committee, organizes JUWAMMA. A Chairperson, a Secretary and a Bursar lead the General Council. A Chairperson and a Secretary lead each of the committees. JUWAMMA manages the whole of the forest as a single unit without dividing it into management units for the different villages that form JUWAMMA [38]. This is how the management has so far been going on and there has been no problem with that approach. Although it is possible to have conflicts among local communities [42], large number of successfully demarcated CBFM projects in Tanzania points contrary to the prevalence of the conflicts.

## 2.2 Weaknesses of CBFM

### 2.2.1 Exogenous origin of CBFM

In Tanzania, CBFM is exogenous in both conception and funding. The concept was borrowed from other parts of the world particularly India and Nepal, where CBFM was initiated and found to work. Tanzania adopted the policy of participatory forest management (PFM) to create incentives for increasing villagers' participation in forest management [43]. Local people's expectations and priorities over CBFM may either be or not be in line with the regional and international policies [44, 45]. For instance, the community may expect CBFM to offer solution over the shortage of fuel wood, local medicine and pastures. While the state may be interested in CBFM because it protects forest biodiversity, and reduces forest degradation. The conflicting argument is that the local people will be eager to protect particular tree species which are important for their utilization while the state and international organizations are concerned with creating highly diverse forest ecosystem. In addition, the local people may have short term plan in forest management like getting wood and timber while the state and international organizations may have long term plan like conservation for benefits like restore water catchment, increase carbon sequestration or promoting micro-environment amelioration [38, 46]. The difference in expectation between the local communities and the state or international organizations may result into failure of CBFM, as the local communities do not originally propose the issue [38, 47]

### 2.2.2 Poor spiritual basis of CBFM

CBFM is supposed to work through protection of the forest by the people with a mix of institutions such as traditional organizations, socially imbedded institutions, village government and NGOs. Traditionally forests were protected because it was believed that they were important to life in a more spiritual sense than the way they are currently regarded, which is a more material perspective [48, 49]. The traditional form of community forest management is known to have existed in Tanzania for a long time but on small scale [50, 48]. Management of forest resources at this phase was guided by traditional organizations and socially imbedded institutions. In Babati district ( the district in Tanzania) for example forests under traditional management constituted Qaidasu which were forests for girls at puberty age, sacred trees, spring forest, forests of traditional elders, Qaimanda forests- which were forests for the traditional group of Manda within the Gorowa tribe [51]. The management of sacred trees, traditional and spring forests was under traditional leaders. Traditional women protected forests where girls at puberty received traditional education. The Qaimanda forests were protected by Manda group and were used for conducting male circumcision and traditional ceremonies. Thus, people would not clear forests because they thought they were related to rainmaking and general good of the environment; and actually performed their rituals in the forests.

Change of traditional forest management regime during pre-and post independence periods led to the end of traditional organizations and socially imbedded institutions in managing the newly created forest reserves under centralized management [51]. The centralization process involved creation of catchment forest departments to protect the forests [52], replacing traditional elders. Other scholars [53, 54] have also reported replacement of socially imbedded organization for government agencies. Similarly, during post-independence period until 1980s, the traditional forest management has gradually been squeezed due to reservation and other policies. The Ujamaa villagization policy of 1970s which led to creation of Ujamaa villages resulted in further disruption of traditional management as some local people and traditional leaders moved out of their original villages. Other drivers identified to have contributed change of traditional forest management mentioned to be the formal education and new religions which provide alternative believes and understanding against which some people challenge traditional believes [55]. Many studies show that sacred forests are better preserved and have a higher level of biodiversity and more unique vegetation than state-preserved forests [56, 57].

In some other countries like the Philippines and Ghana despite modernization the traditional way of forest management is still practiced in some areas and forest condition is mentioned to be good. In the Philippines various indigenous resource management practices still exist in some sites, demonstrating the wealth of knowledge systems that the indigenous peoples possess [58]. For instance, the Ifugao have developed appropriate silvicultural practices, which they continue to observe in managing their *muyong* areas. The *muyong* system of the Ifugao is a landownership and forest management system unique to the Tuali tribe of Ifugao Province in the Cordillera Region, island of Luzon and the term

“muyong” is the general Ifugao word for “forest.” The silvicultural practices applied in muyong include underbrushing; thinning; enrichment planting; removal of poisonous trees, shrubs, and climbing vines; pruning; and selective cutting. They do not cut huge trees in the *muyong*, especially those located near creeks and large rocks because these are believed to be the home of the Ifugao earth spirits undertake sprouting/pruning, rejuvenation, compost piling, root cutting, and collapsing. They tighten and thin trees to regulate the intensity of light reaching the undergrowth [59]. Through these practices the forest has been protected from unsustainable uses.

Similarly in Ghana for example in Esukawkaw Forest Reserve there is a forest portion of sacred grove known as Anweam [60]. The Anweam sacred grove traditionally served as the burial grounds of the traditional rulers and the royal. The Anweam sacred grove, according to the chiefs and people of Asunafo is almost 2 000 hectares subsumed into the Esukawkaw Forest Reserve. The Chiefs and people of Asunafo with not much recorded information on the traditional rights and customs of the grove shroud the grove, which is composed of primary forest, in secrecy.

### 2.2.3 *Inadequacy of technical knowledge at the village level*

With the erosion of traditional systems of knowledge and management, modernization may help in empowering people. However, Tanzanian villages suffer from low levels of technological knowledge and modern education. Apart from knowing how to read and write, effective forest management would demand knowledge of at least accounting and bookkeeping being able to administer the benefits and costs of forest management. When it comes to more advanced technical issues, the villages become even more disadvantaged. The ability of the village to assess forest resources and prepare documents that may be used in national and international negotiations is virtually non-existent. This makes the villages dependent on external experts for issues that are technical in nature. Thus, the destiny of the forests in CBFM is somehow at the mercy of these experts.

An additional factor that appears to constrain the implementation of CBFM at village level is the limited knowledge and understanding of the legal provisions within key local government, lands and forestry legislation that provide for the transfer of management responsibilities downwards to lower level institutions [20]. This manifests itself in a variety of ways such as poor advice to community groups and the establishment of CBFM arrangements that may be on a questionable legal basis [20].

On the other hand, skills shortages among VNRC members because of turnover of VNRC members is also a problem. Turnover of VNRC members has contributed to this situation because training may not be provided to new elected members. This has resulted to some communities which manages CBFM forests to think of transferring management of their forest to Tanzania Forest services Agency (TFS) with the belief that they are in a better position to manage the situations given their financial and technical capacities e.g. The Mgori Forest Reserve in Singida and a few others [6]. The same applies to some forests under Local Government Authorities including Kigonsera, Amani Makoro and Mamsea Lilengalenga Forest reserves in Ruvuma. The transferring of either ownership or management powers to TFS is mainly attributed to lack of capacity in terms of both human and financial resources empowerment to sustain CBFM operations.

### 2.2.4 *Inequality in cost and benefit sharing*

Benefit sharing has been instrumental in empowering local communities involved in natural resource management. There are problems of sharing of costs and benefits of CBFM. These are related to poverty level, education, leadership opportunity and connection with people from outside. People with more education, leadership positions, connection with people from outside and better off benefit more from CBFM. There is a strong risk of the poorer members of a given community losing out the direct benefits of CBFM [61]. Only the middle income and the richer members of the community are in a better position to take advantage of the economic benefits from CBFM by having the ability to obtain licenses, pay fees and other upfront payments required to harvest products from village forests reserve [61]. Furthermore, income-generating projects tend to be more suitable for richer members of the community due to the investment of time and funds required to establish the projects. There is little attempt to design activities in ways that are acceptable to the poor. There is often displacement of forest-based incomes among poor, forest-dependent users following increased protection and conservation measures from CBFM. In a study conducted in Iringa region, it was established that while overall revenues from forest management in Mfyome village had increased dramatically since the establishment of CBFM, poorer members of the community (who had previously been highly dependent on open-access harvesting of charcoal), were priced out of the market and became wage labourers to more established charcoal producers [62].

On the other hand, the influential people like those with leadership opportunity benefit from the CBFM activities because they are more knowledgeable in forest management plans, bylaws and concepts compared to the members with no leadership post. Opportunities for the VNRCs to provide feedback and solicit input from the wider community

(through the Village Assembly) were rare and the VNRCs, being essentially a government institution, are more upwardly accountable (to the village government), than downwardly accountable to the wider community [63].

#### *2.2.5 Conflicting legislations about the definition of a general land.*

The Forest Act no 14 of 2002 and the Village Land Act no 5 of 1999 defined general land differently. According to the Village Land Act, it is not possible to find a general land in a village land, but with the Forest Act, any unmanaged forest within a village is considered as a general land. This confusion has made most of villagers to lose power on accruing direct benefits from such forest resources as cannot process sales of the products from such forests. This tendency has demoralized most of villagers hence limit expansion of CBFM areas within village lands.

#### *2.2.6 Municipalisation and subdivision of villages*

There is a common administrative practice for villages to be split into two or more villages, particularly when the population of a village has increased rapidly. This can result in uncertainty, and even conflict, regarding ownership, management responsibility and access rights for a VLFR. There is a need to understand this issue further and for guidance to be developed to support communities in addressing the challenges that can affect CBFM when a village is split. On the other hand, some villages with VLFRs have been incorporated into municipalities / townships, subsequent to the establishment of CBFM. There is no guidance in place on how this issue should be addressed. This can result in the collapse of forest management under CBFM and ends into deforestation. There is a need to understand this issue further and for guidance to be developed to avoid deforestation in VLFRs that are re-classified as falling into municipal areas.

#### *2.2.7 Elite capture or failed devolution*

Before the 1980s, centralized forest policies in many African countries excluded local communities, while forest resources were frequently degraded. In response, Participatory Forest Management (PFM) was introduced to devolve management and improve livelihoods, forest condition and governance [33]. While the objective of devolution was to make sure that local communities become the managers and owners of the forest resources, the situation today does not justify the objectives. Devolution has failed to bring the local communities involved in CBFM to be the main actors. The district council and elite still have strategic power to benefit more in the forest resources. The district and elite have the ability to sell and change the forestland under CBFM to other land use. Additionally, some communities have experienced financial losses caused by delays in the District Harvesting Committees fulfilling their roles and responsibilities of providing harvesting permit to CBFM owned forest. This undermines communities' capacity to implement CBFM effectively. Furthermore, there are many instances of districts deliberately aiming at keeping the forests to themselves because they are source of revenue to the district council.

#### *2.2.8 Poor infrastructure and legal documentation at village level*

Although the Land Act and Village Land Act of 1999 allow for villages to survey and demarcate land as village land, very few villages have been surveyed and legally documented. Most villages also do not have documented land use plans. This makes the villages unable to make major decisions with their land until they survey the villages. Misinformation regarding CBFM procedures, legal requirements, steps and delegation of powers leads to delays and in other cases obstruction [20]. In many cases district authorities claim they are not aware of forest related legislation and they do not have copies of the Forest Act, Land Act and Village Land Act and regulation.

On the other hand, poor infrastructure in rural areas related to forest administration is a big weakness to establishment of CBFM in Tanzania. Village offices are poorly furnished and some are not well sheltered. This makes it difficult to keep records. The shift of responsibility to the local level without concurrent budget support, technical skills or decision-making power for implementation has stifled the growth of CBFM. Communities need similar levels of inputs to those required by state institutions in order to manage forests effectively. Associated operation costs have been ignored, and should be addressed [36].

### **2.3 Opportunities for CBFM**

#### *2.3.1 Appropriate national policies and international conventions*

Most major policies in Tanzania have been changed in favour of involvement of local communities in management of resources. In particular, the national forest policy of 1998 has two major statements that promote PFM (Table 3). In addition, the Village Land Act of 1999 and Forest Act of 2002 are also in support of the CBFM. The right to land

ownership by village as a whole and individuals is provided by the Tanzania Land Act of 1999. This Act supports existence of village forest reserves and private forest management [2].

**Table 3** Policy statements that support PFM in National Forest Policy of Tanzania of 1998

Policy statement number	Policy statement
5	To enable sustainable management of forests on public lands, clear ownership for all forests and trees on those lands will be defined. The allocation of forests and their management responsibility to villages, private individuals or to the government will be promoted. Central, local and village governments may demarcate and establish new forest reserves.
39	Local communities will be encouraged to participate in forestry activities. Clearly defined forestland and tree tenure rights will be instituted for local communities, including both men and women.

Other policies that have been changed to put communities in the central position include the Local Government Reform (1998), Gender Policy of 2001 and the Land Policy of 1995, Beekeeping Policy of 1998, Fisheries Policy of 1997, Mineral Policy of 1998, Agriculture Policy of 1997, Wildlife Policy of 1998 and Water Policy of 2002.

Besides the national policies, there are international conventions that recognize the role of local people in resource management and hence favour CBFM. These include the Convention on Biological Diversity and the Ramsar Convention on Wetlands. This means that there is political will at the international level to support CBFM. For instance, the Convention on Biological Diversity has three objectives: (i) the conservation of biological diversity; (ii) the sustainable use of its components; and (iii) the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. All of these objectives of the convention cater for the interests of local communities. The Ramsar convention on Wetlands covers all aspects of wetland conservation and “wise use” of wetlands, recognizing that wetlands are extremely important ecosystems for biodiversity conservation. “Wise use” therefore has at its heart the conservation and sustainable use of wetlands and their resources, for the benefit of humankind.

### 2.3.2 Funding initiatives for sustainable forest management

There are many funding initiatives for sustainable forest management. These initiatives recognize the role of local communities in forest management and hence support CBFM. For example, the United Nations Collaborative Programme on Reducing Emissions from Deforestation and forest Degradation in Developing Countries (UN-REDD) has an explicit strategy for involvement of local people in its projects. The indigenous peoples and civil society organizations are represented both as members and as observers to the UN-REDD Programme Policy Board, providing leadership, direction and decisions on financial allocations to ensure the overall success of the UN-REDD Programme. Furthermore, The World Bank has been supporting forest reforms in Tanzania since the mid 1990s through a number of projects implemented at local and national level. The World Bank through the Tanzania Social Action Fund (TASAF) is supporting the PFM initiatives [20]. In addition, there are many NGOs and organizations (local and international) in the country, which have received funds from different donors to support Sustainable Forest Management. Example of such NGOs and Organizations include; CARE International, World Vision International, Frankfurt Zoological Society, European Union, Swiss Development Cooperation, Belgium Technical Cooperation, ENABEL, Tanzania Forest Fund, Land Management Project, LAMP (SIDA), Rufiji Environmental Management Project (IUCN), Netherlands Partnership Program (FAO/ IUCN), TFCG, MCDI, WWF, WCST and Mjumita

### 2.3.3 The existence of vast forest areas on the general land

The extent of available forestland which fall under the general land in Tanzania creates an opportunity for the CBFM activities to be successfully implemented. Tanzania has 2,732,575 hectares of forestland that is under the general land which can potentially be sustainably utilized and managed under CBFM [3]. From the current statistics it is indicated that in year 2020 Community Forest Management (CBFM) is operational in 1,255 villages with 685 VFRs and on an area of 2,689,342.31 hectares of forestland [34]. On the other hand, in 2001 there were only 78 village forest reserves under CBFM with a total of 186,292 hectares [64]. It can be deduced that between 2001 and 2020, CBFM activities have increased by 607 VFRs with an area of 2,503,050.31 hectares. The percentage increase of VFRs and area is equivalent to 778% and 1244% respectively. The enactment of forest act number 14 of 2002 is cited as the main reason for the noted increase. With this emerging trend of CBFM, It can be concluded that the potential area for further expansion of CBFM activities could be sourced from general land with an area of 2,732,575ha available for any emerging activities.



## 2.4 Threats to CBFM

### 2.4.1 Land grabbing

CBFM is threatened by lack of political strength within the forest sector to win out over other interests [65, 66]. The local community fostering CBFM are poor and weak over the government decisions. In many occasions where land is required for private investment businesses, forested land that would potentially be put under CBFM has been grabbed from the local people authority and developed to other land uses which has low return to development, livelihood of the local people and sustainability of forest biodiversity [67]. Additionally, issue of competing land use also undermines the CBFM implementation, as there is a lack of motivation among local communities implementing the CBFM approach. Local communities have recognized that establishing an area for crop production or clearing natural trees and planting exotic trees pays more than conserving natural forest. This is because forest policy require an individual who owned exotic trees to be compensated in case of any tree destruction while the policy requires no compensation to an individual who owned indigenous trees in case of any tree destruction [1].

### 2.4.2 Poor governance and ineffective management

Despite that community Based Forest Management (CBFM) aim at improving rural livelihoods, governance and forest conservation [10], poor governance of CBFM threaten its success. Implementation of CBFM philosophy excludes marginalized groups from access, use, and control of valued forest resources, suggesting serious shortcomings in social justice terms. [65] explain this with reference to the lack of accountability and transparency of the local institutions, enabling favoritism and manipulation to occur by politically powerful and well connected individuals. As a result, communities that are the legal owners of many of the forests on the village lands are only capturing about 1% of the value of the timber trade [68].

Other analyses detail how CBFM is characterized by partially elected community representatives [69, 16], with a lack of capacity [70], transparency in handling funds, and accountability to their constituents [71, 72]. High costs of forest resources (e.g. timber) are also seen to exclude the poorest from benefiting from CBFM [73, 74]. This situation has increased intra-and inter-community conflicts [75]. In other instances, CBFM policies and central government transferred limited powers to local communities [76, 77], and devolved power is contested between districts and villages [43]. Active involvement of foresters in PFM may also reduce the sense of ownership and power that local communities may exercise [78]. Furthermore, lack of incentives to government officials have delayed village –level formalization of rights over forests [20]. This conflict of interest often manifests itself through the slowing down of key stages in the legal process of CBFM establishment.

Moreover, there is a mismatch between participation ideals and the way the process has been framed, or structured, as well as outcomes on the ground in terms of actual participation and forest management practices. Paradoxically, PFM has been shown to reaffirm domination by forest bureaucrats and other experts to the detriment of the local autonomy and decision-making that was a normative goal in and of itself as well as a key assumption underlying its promises of improving local livelihoods and forest conservation [79, 80, 81, 82].

### 2.4.3 Human-wildlife conflicts

Human-wildlife conflicts is one among issues which pose a huge threat to CBFM development [39]. As forest, condition improves and disturbance declines due to improved protection measures, resulting from CBFM wildlife populations tend to increase and re-colonize from surrounding areas. Many communities in Tanzania have encountered increased costs associated with PFM over time, as wild animals (such as monkeys, baboons and antelopes) populations benefit from the increased habitat protection and raid or damage crops planted near to the forest boundary and sometimes threatens the lives of people and their domestic animals [83]. Currently there is limited information of how many people were injured or how much hectares of crops were destroyed by wild animals because of CBFM development in Tanzania, further studies on this is needed.

### 2.4.4 Complications of REDD+ implementation

REDD+ overlapped PFM efforts, it shifted the mind of local communities from Community Based Forest Management policy to REDD+. Community Based Forest Management policy is now an entry for individuals to access REDD+. REDD+ is only a name but all the principles are based on sustainable forest management. Nevertheless, the mechanism of REDD+ has a lot of bureaucracy and does not show incentives to make sure that Community Based Forest Management policy succeeds. It creates frustration to facilitators in promoting the ideal of Community Based Forest Management policy. Complexity of REDD+ as a mechanism to promote PFM is not workable. It creates over expectation in the local community without fulfilling them, hence frustration to local communities

#### 2.4.5 Sustained deforestation and forest degradation

Regardless of ownership in which forest and woodlands fall into, deforestation and forest degradation are major challenges to the forest sector in Tanzania. While deforestation is the change of forestland to other land use like agriculture forest degradation is the change that happens within the forest where the capacity of a forest to provide ecosystem services is reduced. The major drivers of deforestation and forest degradation are agriculture, mining, charcoal, infrastructure development, fire and shifting cultivation. CBFM mainly depend on the availability forest and woodlands in which participation of people into CBFM would be enhanced. If the forest and woodlands are depleted because of deforestation and forest degradation drivers then CBFM arrangement will not be there. For sustainable CBFM, deforestation and forest degradation need to be curbed.

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### 3 The way forward with CBFM in Tanzania

In general, to secure the future of CBFM in Tanzania, the government needs to address the weaknesses and threats of CBFM.

#### 3.1 Land grabbing

Land grabbing is the serious threat to the success of CBFM policy. However, all forest under CBFM policy must be gazetted in order to offer an avenue of compensation when the government intends to change the land under CBFM to other land use. This would motivate community to actively participate in the process. Additionally, the policy should be revised to accommodate compensation of all trees whether planted or occurred naturally when the land is grabbed for other activities.

#### 3.2 Poor governance

Governance issues related to the implementation CBFM should be addresses by stakeholders involved in CBFM. The government must ensure that all stakeholders adhere to the policy statements put in place in the forest policy for CBFM implementation. Access, use, and control of valued forest resources to marginalized groups in the community must be enhanced for the success of CBFM. Transparency in handling funds accrued from forest under CBFM must be enhanced. This would motivate involvement of local people in CBFM. Government staffs should not actively involve themselves in CBFM rather should remain with their roles of facilitation.

#### 3.3 Inadequacy of technical knowledge at the village level

The current efforts of the government to increase access to formal education at primary and secondary level are a good move in improving the technological understanding of villagers. However, the education which is provided is general and does not cater for issues related to forest management. Emphasis to natural resources management must be emphasized in the curriculum.

#### 3.4 Poor documentation of village

Villages have to be surveyed and documented and facilitated to prepare land use plans. The government should also think of supporting the traditional forest management with formal, legal recognition through the Forest Policy and Act to strengthen local forest management rights. Similarly, awareness on forest management rights, laws and opportunities among villagers who depend on forest resources should be raised.

#### 3.5 Inequality in cost and benefit sharing

The long-term viability of CBFM will depend on how the local communities adjacent to CBFM forests realize equally the benefits from the forest for their livelihoods improvement. The capacity within local governments should be reinforced to ensure tangible economic returns from CBFM are equally shared among social grouping within the community. In addition to that, in order to ensure that the benefits from CBFM are equally shared, deliberate efforts should be made to involve them in all aspects of planning and implementation of activities.

#### 3.6 Human-wildlife conflict

For human wildlife conflict (HWC), combination of options are needed to prevent or find the solution for the conflicts. For example, land use planning to ensure human activities are not carried out near forest reserves; the need is also there to provide community awareness on the issue of conservation. Protection of people and livestock from wild animals could also be done through deploying rapid ranger teams to move elephants away from farms and building crop-

protection fences to create a hard boundary between elephant habitat and agricultural areas. Also building bomas/enclosure and wise use of pastoral rangeland could also be the better options.

### **3.7 Conflicting legislations about the definition of a general land.**

The Forest Act no 14 of 2002 and the Village Land Act no 5 of 1999 defined general land differently. This confusion has made most of villagers to lose power on accruing direct benefits from such forest resources as cannot process sales of the products from such forests. The definition of general land need to be reviewed for both the legislation to provide same definition. This would made the villages involved in CBFM activities not to lose power when they accrue benefits in their forest resources.

### **3.8 Municipalisaton and subdivision of villages**

There is a common administrative practice for villages to be split into two or more villages, particularly when the population of a village has rapidly increased. This can result in uncertainty, and even conflict, regarding ownership, management responsibility and access rights for a VLFR and consequently end into deforestation. Currently, there is no guidance in place on how this issue should be addressed. Therefore, understanding this issue in detail is needed and guidance should be developed to support communities in addressing the challenges that can affect CBFM arrangement under this scenario.

### **3.9 Elite capture or failed devolution**

Before the 1980s, centralized forest policies in many African countries excluded local communities, while forest resources were frequently degraded. CBFM is most clearly defined in terms of the devolution of rights to make management decisions, and capture benefits, in relation to resources located on communal lands [25]. In all instances, CBFM involves some degree of co-management of resources between central authorities, local government, and local communities, which share rights and responsibilities through diverse institutional arrangements. While the objective of devolution was to make sure that local communities become the managers and owners of the forest resources, the situation today does not justify the objectives. Devolution has failed to bring the local communities involved in CBFM to be the main actors [84]. The district council and elite still have strategic power to benefit more in the forest resources under the CBFM arrangement. The district and elite have the ability to sell and change the forestland under CBFM to other land use. Additionally, some communities have experienced financial losses caused by delays in the District Harvesting Committees fulfilling their roles and responsibilities of providing harvesting permit to CBFM owned forest. This undermines communities' capacity to implement CBFM effectively. Furthermore, there are many instances of districts deliberately aiming at keeping the forests to themselves because they are source of revenue to the district council. For all CBFM forests, empowering the local communities through reestablishing terms of engagement between local communities and elite should be emphasized. Moreover, individual payment approaches should be emphasized to minimize risks of elite capture and ensure widespread support for REDD+ across a given community.

### **3.10 Poor spiritual basis of CBFM**

Based on the current socio-economic and political context, however, ignoring the spirituality of the sacred forests to emphasize only their ecological value would not create sustainability. On the other hand, attitudes towards cultural taboos that restrict the exploitation of sacred sites are changing as the enforcing institutions shift. There is a need to revitalize the age-old ethos of conservation in traditional culture [48]. Moreover, African traditional philosophy emphasizes holistic understanding, and such all-inclusive rationalities explain the continued existence of sacred forests in most parts of the country. Inventories of sacred groves, especially those harboring endangered species, would help conservationists appreciate their global significance for preserving biodiversity in situ. As a step in this direction, the Tanzanian government should support research efforts to inventory all the groves of the country. Additionally, by declaring sacred groves as preservation sites with legal status, it could promote in situ conservation of biodiversity. However, conservation of sacred groves should recruit community efforts, where local people serve as guardians within the framework of national forestry conservation.

### **3.11 Exogenous origin of CBFM**

In Tanzania, CBFM is exogenous in both conception and funding. Although the concept of CBFM is exogenous, the people in Tanzania have internalized it. However, the difference in expectations between the local communities and the state or international organizations should be squared for the concept of CBFM to be sustainable. On the other hand, the government of Tanzania should create own source of funding from internal sources for the CBFM arrangement to work sustainably.

### 3.12 Complications of REDD+ implementation

REDD+ overlapped PFM efforts, it shifted the mind of local communities from Community Based Forest Management policy to REDD+. CBFM policy is now an entry for individuals to access REDD+. REDD+ is only a name but all the principles are based on sustainable forest management. Nevertheless, the mechanism of REDD+ has a lot of bureaucracy and does not show incentives to make sure that CBFM policy succeeds. It creates frustration to facilitators in promoting the ideal of CBFM policy. Complexity of REDD+ as a mechanism to promote PFM is not workable. It creates over expectation in the local community without fulfilling them, hence frustration to local communities. Incentives stipulated under the REDD+ should be easily accessible when the communities fulfil all the arrangement under REDD+

### 3.13 Sustained deforestation and forest degradation

Regardless of ownership in which forest and woodlands fall into, deforestation and forest degradation are major challenges to the forest sector in Tanzania. CBFM mainly depend on the availability of forest and woodlands in which participation of people into CBFM would be enhanced. If the forest and woodlands are depleted because of deforestation and forest degradation drivers then CBFM arrangement will not be there. For sustainable CBFM, deforestation and forest degradation need to be curbed through developing cost-effective strategies that can address drivers of deforestation and forest degradation. This could be possible through understanding of the drivers of deforestation and forest degradation and the amount of volume and biomass they remove from the forest. Additionally, with regard to the different interventions practiced by different projects, participatory forest management, community-based fire management and conservation agriculture appear to be the most effective approaches for addressing deforestation drivers in the Tanzanian context.

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## 3 Conclusion

Community-Based Forest Management (CBFM) Policy as a basis for REDD+ implementation in Tanzania has its strengths, weaknesses, opportunities and threats. Villages being the unit of organization and institution with defined local governance structure have simplified the implementation of CBFM activities in most places of mainland Tanzania. Additionally, Tanzania national forest policy, the Village Land Act of 1999 and Forest Act of 2002 demonstrates the government commitment to realize the benefit of present and future generations through various forest management regimes including CBFM. Furthermore, people in Tanzania have accepted CBFM positively and readiness of the community to take power over forest has been empowered by knowledge shared from the government and other stakeholders such as NGOs. However, the difference in expectation between the local communities and other stakeholders, exclusion of traditional institutions in CBFM, municipalization of the village, low level of technological knowledge and modern education at village level are seen as weakness of CBFM that may result into failure of CBFM policy. In contrast, the extent of available forestland, which fall under the general land in Tanzania and funding initiatives, creates an opportunity for the CBFM activities to be successful implemented. CBFM policy is an entry for communities to implement REDD+ and access its funds. For sustainable CBFM and accessing REDD+ funds, communities involved in CBFM arrangement need to curb deforestation and forest degradation.

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## Compliance with ethical standards

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The authors declare that they have no conflicts of interest regarding the publication of this paper.

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