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DOCTOR OF PHILOSOPHY

Exploring the mismatch between policy objectives and outcomes in Participatory Forest Management in Tanzania

Magessa, Kajenje

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Exploring the mismatch between policy objectives and outcomes in Participatory Forest Management in Tanzania



PRIFYSGOL
BANGOR
UNIVERSITY

A Thesis for the Degree of Doctor of Philosophy

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March 2020

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DEDICATION

In dedication to my husband Edwin Igenge and my children Leeann and Bethan-Esther Igenge who have been a constant source of support and encouragement during my PhD Studies.

And to my parents

Rukondo Magessa Nkukurah and Elizabeth Elias Matongo. I couldn't have done it without you. Thank you for giving me the wings.

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SUMMARY

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. Building on existing analyses that highlight the limited successes of PFM, my thesis explores the mismatch between policy objectives and outcomes in PFM. First, I conducted a policy review to explore whether, and how, devolution is specified in Tanzanian, Kenyan, Ugandan, Malawian and Ethiopian forest policies. The analysis considered the decentralisation framework developed by Agrawal and Ribot as well as the commitments of the Rio Declaration. In none of the five countries do the policies provide for all the critical elements required to achieve meaningful devolution, such as democratically elected, downwardly accountable local actors and equitable benefit sharing. I concluded that even without flaws in implementation, these decentralisation policies are unlikely to achieve true devolution in the study countries. I then used individual surveys, key informant interviews and focus group discussions to investigate whether Tanzanian PFM has achieved devolution in a specific case study, by comparing observed outcomes to stated policy objectives and the decentralization framework developed by Agrawal and Ribot. I found PFM had failed to achieve devolution, with institutions captured by a relatively centralised ‘elite-within-an-elite’, poorly accountable to ordinary residents and village authorities. Importantly, the failures were not just attributable to flaws in the policy identified by my review. I then assessed how Tanzania’s PFM policy was developed, to understand why and how the failings identified in policy design came about. I used key informant interviews with stakeholders that were involved in the process of PFM policy formulation. I found that foreign donors played a great part in driving the process of policy formulation, with a lack of wider stakeholder engagement. In addition, key personnel in the government actively disagreed with the rationale for PFM. This contributed to a weakened policy, with government reluctant to devolve appropriate powers to local communities. Finally, I used key informant interviews, focus group discussions and individual surveys to examine to what extent the process of PFM implementation at national, district and village levels contributes to PFM failure. I found that constraints on PFM implementation arose from a lack of capacity to support the approach, in terms of financial, human, and physical resources, as well as a lack of policy knowledge of

local communities and forest staff. In addition, REDD+ policy (Reducing Emissions from Deforestation and forest Degradation) has also weakened the existing institutional framework for implementing PFM policy. Implementation of PFM has also been dependent on donor and NGO support, which has not been sustained. Overall, I found that PFM policy was weakened at each stage. A flawed policy making process, lack of political will and institutional resistance, led to formulation of policy that had weaknesses e.g. policy allowed unrepresentative local institution to develop in PFM as well as transferred unbalanced enforcement powers to local communities. Devolution was then stymied by existing power relations and resource constraints at each level of implementation, from national to local. Overall, while it was hoped that PFM would address deficiencies in centralised forest management by devolving power to local people, its success was limited by the very factors it aimed to address, e.g weak state capacity that aimed to address. The result may more closely resemble a privatisation of resources that were previously managed *de facto* as common property by surrounding communities than true devolution.

ACRONYMS

AICc	Akaike Information Criterion
CBFM	Community Based Forest Management
CFM	Community Forest Management
CoFM	Collaborative Forest Management
DBO	District Beekeeping Officer
DCFO	District Catchment Forest Officer
DFO	District Forest Officer
DFsO	District Fisheries Officer
DGO	District Game Officer
DNRO	District Natural Resource Officer
FBD	Forestry and Beekeeping Division
FGD	Focus Group Discussion
IMF	International Monetary Fund
JFM	Joint Forest Management
KI	Key Informant
NGO	Non-Governmental Organisation
NTFPs	Non-timber Forest Products
PFM	Participatory Forest Management
SEC	Sub-village Environmental Committee
SIDA	Swedish International Development Cooperation Agency
SULEDO	Sunya Lengatei Dongo
TAFORI	Tanzania Forestry Research Institute
TFS	Tanzania Forest Service
UNCED	United Nations Conference on Environment and Development
VEC	Village Environmental Committee
VLFR	Village Land Forest Reserves
ZEC	Zonal Environmental Committee
REDD+	Reducing Emissions from Deforestation and forest Degradation

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Chapter 1. THESIS INTRODUCTION

1.1 Research background

Forests play a great role in climate change and adaptation, sustainable development, and also contribute to poverty reduction as well as food security (Powell et al., 2013; García-López, 2019). Despite the potential role of forests there have been several factors that challenge their sustainability including population growth, agricultural expansion, fires and illegal logging (FAO, 2015; Solomon, 2015). To respond to these challenges, many authors have suggested that communities are in the best position to manage forest resources through Participatory Forest Management (PFM), rather than the state alone (Agrawal and Yadama, 1997; Ostrom, 1999). Following this, Participatory Forest Management was introduced to devolve management and improve livelihoods, forest condition and governance (Tole, 2010; García-López, 2019). FAO, (2010) and Bixler, (2014) have argued that Participatory Forest Management is an increasingly important form of forest management in many countries, and the forest area owned by indigenous peoples and local communities has been increasing every year (RRI, 2018). Currently about a third of the world's forests are under PFM (Warren and Visser, 2016; García-López, 2019) and previous literature shows that over half a billion people in developing countries depend on forests managed under PFM for part of their livelihoods (Agrawal, 2007). Despite efforts made by some countries towards PFM implementation, the recognition of communities' forest rights continues to lag behind (RRI, 2018). Studies to date have documented mixed ecological and livelihood impacts of Participatory Forest Management (e.g. Bowler et al., 2012; Lambrick et al., 2014; Lund et al., 2018). Participatory Forest Management faces daunting challenges, that include exclusion of marginalised groups (Dressler *et al.*, 2010; Liu et al., 2018), inequalities and persistent 'elite capture' (Blaikie, 2006; Sikor and Nguyen, 2007; Lund and Saito-Jensen, 2013; Warren and Visser, 2016; Luintel et al., 2017). Other studies found that PFM has not transferred significant power to local people, limiting the approach in achieving local community empowerment goals (Chomba *et al.*, 2015; Mutune and Lund, 2016; Das, 2019). Participatory Forest Management is still not successful in achieving effective participation of all local communities in the programme activities (Agrawal and Gupta, 2005; Ribot et al., 2010; Adhikari et al., 2014). However, less attention has been paid to understanding where in the policy process these failures occur, and what causes them. In chapter 2, I first determine how far

decentralised forest policies are designed to achieve devolution. In chapter 3, I explore to what extent has Tanzanian PFM achieved devolution (in a well-funded exemplar case). In chapter 4, I explore the extent to which the process of PFM policy formulation contributes to the success or failure of the approach. In chapter 5, I examine whether meaningful devolution has actually occurred at national, district and village levels. If not, then I identified the major constraints to implementation. Therefore using a case study of Tanzania, this study aims at exploring what explain the mismatch between policy objectives and outcomes in Participatory Forest Management.

1.2 Definition and description of terms and concepts

1.2.1 Decentralisation

Decentralization refers to a transfer of powers from the central government to lower levels in an administrative and territorial hierarchy (Ribot 2002; Agrawal and Ostrom 2001; Larson and Ribot 2004). Decentralization of forest management is defined as the transfer of authority and management functions of forest resources from central to local communities and local institutions at lower levels (Blomley *et al.*, 2007; Tacconi 2007). There are four types of decentralisation and these are Devolution, Deconcentration, Delegation and Privatization (Ribot, 2004). Devolution is the process of transferring full decision-making powers, utilization rights, tasks and resources from high-level authorities to lower level authorities (Ribot, 2004). (See definition of other types of decentralisation in chapter 2).

1.2.2 Participatory Forest Management

The literature on forest management offers a wide range of definitions of Participatory Forest Management (PFM). Blomley and Ramadhani, (2006); Blomley *et al.*, (2008) defined Participatory Forest Management as a “strategy through which local communities adjacent to forest resources and other stakeholders are involved in management of the forest resources”. Similarly, Winberg, (2010), define PFM as a “process and mechanism enabling individuals who are directly connected to the forests and have a greater role to play in forests to be included in all aspects of decision making with regard to forest management and utilization”.

1.2.2.1 Why Participatory Forest Management of forest resources?

Many countries in the world are now practising Participatory Forest Management due to high rates of forest degradation, contributed by a failure of some states to manage their forest resources due to a lack of capacity (Kihyo, 1998). Since the 1980s, the Participatory Forest Management approach has been rapidly expanding in Africa, Asia and Latin America, with the aim of improving forest conditions, governance and the livelihoods of local communities living adjacent to forests (Blomley and Ramadhani 2006; Agrawal *et al.*, 2008; Sunderlin *et al.*, 2008). Participatory Forest Management is considered by governments and international organisations as being a democratic approach to forest management and governance, through empowering local communities with decision making and utilization powers as well as power to enforce forest rules (Agrawal and Ribot 1999; Manin *et al.*, 1999; Ribot, 2004; Ribot *et al.*, 2010).

Béné *et al.* (2009) argued that involving local communities in forest resources management would contribute to sustainable forest management and improve rural livelihoods better than pure state management for several reasons: 1) the proximity of local communities to forest resources give them an advantage in monitoring the use of the forest resources. 2) Local communities have a better knowledge of the local environment where forest resources are located hence enabling them to design the appropriate management strategies and implement them accordingly and; 3) Local communities have an interest in the long-term maintenance of the resources because most of them depend on it for their livelihoods (Béné *et al.*, 2009). However, in order to achieve effective PFM, there should be rules and regulations to prevent risk of free riding and depletion or spoliation of the shared common pool resources managed collectively (Smith, 1980; Agrawal, 2001). Participatory Forest Management aims to secure property rights to local communities and at the same time to facilitate equity in distribution of benefits accrued from the approach for the marginalised groups e.g. poor and women (Coulibaly-Lingani *et al.*, 2011). In most developing countries, policy makers viewed Participatory Forest Management as a means to alleviate poverty and not only as a way to improve forest governance and condition (Kellert *et al.*, 2000).

However, Castro and Nielsen (2001) point out that the approach created the arena for more power struggles than state management, because of multiple stakeholders with new roles and different competing interests in the forest resources.

In practice Participatory Forest Management can have both positive and negative impacts on forest governance, condition and livelihoods (Corona *et al.*, 2011). The impacts of Participatory Forest Management globally and in Tanzania is a result of different political and ecological events (Sheridan, 2004).

1.2.3 Property rights

Agrawal and Ostrom (2001) defined property rights as a “relationship among actors with respect to things like natural resources”. A property right is defined by (Bromley and Cernea, 1989) as “the structure of rights and duties that characterise relationships between individuals with respect to a specific good or benefit stream”. Property rights can be either *de jure* or *de facto*. *De facto* rights are defined as “informal property rights specified by an individual or a group of individuals” while *de jure* rights are defined as “formal property rights specified by government with recognised authority” (Alston *et al.*, 2009).

According to Schlager and Ostrom (1992) there are five main types of property right namely: access rights, management rights, use rights, exclusion rights, and alienation (transfer) rights. Among these types of property right, management, exclusion, and use rights are particularly important in natural resource governance (Agrawal and Ostrom 2001). Sometimes informal property rights were found to provide more incentives for local communities to motivate them to participate in the management of the commons pool resources than formal property rights externally introduced by governments (McKean 1992; Blewett 1995; Omura 2008).

1.2.4 Property regime

Property regimes are “social constructs specifying the framework from within which individuals go about their daily routine of individually maximizing benefits” (Steel and Weber 2001). It is common to find four different property regimes in the Common Pool Resources literature namely: private, common, state (public) and open access property regimes (Bromley and Cernea 1989; Vatn 2005).

Private property is the legally and socially sanctioned ability to exclude others from benefiting from the particular resource and allows the owner to force others to go elsewhere (Bromley and Cernea 1989). Among the characteristics of private property is excludability (Steel and Weber 2001). A potential advantage of private property is that the owner of a private property may try to use the resource more sustainably and efficiently because a decline in the quantity and value of that particular resource is felt by the owner (Masomera, 2002). In private property regimes the owner of the resource has both *de facto* and *de jure* right to manage and use the resource.

Common property is defined as private property for a group of individuals who share the same interest and exclude other individuals who are not members of the group from benefitting from a particular resource (Blomley, 2008). The capacity to exclude other individuals from getting benefit from the resource constitutes the main difference to open access (Glück, 2002). Generally, common property regimes are characterized by rules concerning appropriate use patterns of a particular resource (Steel and Weber 2001). Therefore in common property regimes each individual has *de jure* and *de facto* rights in management and utilization of the resources (Steel and Weber 2001).

In a state property regime, ownership and management of resources are in the hands of the state (Glück, 2002). This means the state is the *de jure* owner and manager of the resource according to the statutory tenure system (Dokken *et al.*, 2014). Good performance of state property regimes depends on different factors such as objectives, incentives and principal agent problems and their implementation by public officials (Glück, 2002).

Under open access property regimes there is no *de jure* rights for individuals or groups of people to control the management and utilization of the resources (Masomera, 2002). Each individual in an open access regime has *de facto* rights over utilization of the resources which occurs on a first come first served basis (Masomera, 2002). Where no effective management regime has been established in an open access regime, then there is high chance that forest degradation will occur (Ostrom, 2005).

The good performance of these types of property regimes depends on understanding the situation which the resources are facing at that particular time, therefore in order to obtain a

preferable property regime in a particular resource management one has to consider particular sets of circumstances of that particular resource (Steel and Weber 2001). In general, different people or countries may hold these types of property rights in different ways.

1.2.5 Common Pool Resources

Common-pool resources “are systems that generate finite quantities of resource units so that one person's use subtracts from the quantity of resource units available to others” (Ostrom, 1994). Common-pool resources are often called rivalrous (Apesteguia and Maier-Rigaud, 2006). The size of Common Pool Resources makes it costly although not impossible to exclude potential beneficiaries to obtain benefit from their use (Ostrom, 1994; Ostrom *et al.*, 1999). Overuse of the Common Pool Resource may lead to a “tragedy of the commons”. Literature shows that forest resources are often Common Pool Resources because their quantity is limited and it may be difficult to exclude potential beneficiaries from obtaining benefits from it (Ostrom, 2008). Forests share borders with many other resource systems and this makes their sustainable management difficult (Ostrom 1995; Ostrom *et al.*, 1999 ; Ostrom, 2005). Common Pool Resource are resources from which it is inherently difficult to exclude potential beneficiaries. Common Pool Resources managed under different regimes such as private, common, state (public) and open access may all suffer from a lack of excludability. Sustainable management of the resources in each of these regimes depend on the management capacity in each case.

1.3 Common Pool Resource management theories

1.3.1 Tragedy of the commons theory

Hardin (1968) stated that “individuals acting rationally and independently according to their own self-interest will deplete a shared resource, even if it is contrary to the best interest of the group”. The costs of depletion are shared amongst the group, but the benefits (of each harvest) accrue to the individual. Hardin (1968), gave an example explaining that, in a pasture open to all individuals who have cattle, it is to be expected that each individual who owns cattle will try increase the number of cattle on the commons without limit. Such an arrangement could work reasonably satisfactory for a number of centuries, but it will reach a

time when the long-term goal of maximizing gains on the common will not be attained due to depletion of the common resources. At this point, the logic of the commons leads to a tragedy of the commons that is shared by all individuals. Thus the effects of overgrazing are shared by all herdsman (Hardin, 1968). In his theory, Hardin argues that privatizing Common Pool Resources will enhance sustainable management of the common resources because it is the ability to exclude outsiders and the sense of ownership when an individual knows that they own the resource that leads them to become more responsible in managing the resources. However, Hardin's work has been criticized as propaganda for private ownership. Foley and McCay, (2014) have argued that privatization of the Common Pool Resource frequently leads to development, deforestation, and habitat destruction, thus it is not true that when the common resource are privatised they will necessarily be managed sustainably. Private owners normally expect to experience direct benefits from their actions, and forests may not provide the highest private returns from land. Foley and McCay (2014) argues further that sustainable conservation had never been achieved through privatization of Common Pool Resource. Certainly, privatisation will not prevent unsustainable use if the rate of growth of the resource is low relative to the discount rate. Privatisation usually leads to exclusion/dispossession of many people (usually the poor, who may be most dependent on the resources).

Users of Common Pool Resources are often able to have common property regimes and establish institutional arrangements by themselves or with external assistance which avoid the overuse of a Common Pool Resource (Ostrom 1995; Blewett 1995; Ostrom 2005; Ostrom, 2005; Janssen *et al.*, 2008).

1.3.2 Collective action theory

Ostrom (2004) defined collective action as “a situation that occurs when each individual in a group of shared interest is required to contribute to an effort in order to achieve outcomes”. In the context of this study, collective action occurs when individuals at local level work together in forest management to achieve meaningful Participatory Forest Management (Agrawal 2001; Agrawal and Ostrom 2001).

Olson first published the theory of collective action in 1965. He argued any group of individuals with the same interests or objective to public good has troubles to achieve that objective efficiently, “rational, self-interested individuals will not act to achieve their common or group interest” (Olson, 1965, p. 2). Collective action suffers from problems related to the difficulty of excluding non-participants from benefiting from the collective action of others in the group of shared interest (Olson, 1965). Thus, individuals can gain a short-term benefit without contributing or paying the costs to the collective action (Agrawal and Ostrom 2001; Ostrom 2004). “These are better off when others contribute to the collective action and they do not” (Ostrom, 2004). Researchers have identified solutions to collective action problems, these include introduction of government regulation, mutually binding agreement and privatisation of the resources to be under private property regime (McKean 1992; Ostrom *et al.*, 1999; Agrawal 2001; Ostrom 2004; Cox *et al.*, 2010).

1.4 Critical issues in forest management

1.4.1 Institutions

Institutions are defined as procedures and rules of society or ‘rules of the game’ (Jepperson, 1991). Institutional economists also defined institutions as “enforcement mechanisms that shape individuals’ behaviours as well as the society” (North, 1990). Bandaragoda (2000) reported two types of institutions: formal institutions, which are formal written rules and procedures and informal institutions, which are informal procedures, norms, practices and customs. Informal institutions make an important contribution to the management of Common Pool Resources (Lewins, 2007). Sometimes, when formal institutions become ineffective in sustainable management of Common Pool Resources, informal institutions (rules-in-use) replace them and have a positive effect (Bromley and Cernea 1989; Bandaragoda 2000). Informal institutions sometimes override formal institutions and affect the performance of formal institutions, leading to unsustainable management of Common Pool Resources including forests resources (Bandaragoda and Firdousi 1992).

1.4.2 Organisation

Merrey (1995) defined organisations as “structures that are organized and constitute accepted roles”. North (1990) defined organisations as purposive entities designed to

maximize profit. In natural resources management, organisation is defined as organized structures aimed at achieving a specified goal or a set of missions in natural resources management (Bandaragoda, 2000). However, institutions have been regarded as organisations in our daily lives and most individuals failed to see the differences between them (Bromley and Cernea 1989). Khalil, (1995) argued that institutions and organisations are different because “organisations are agents like households, firms, and states that have preferences and objectives while institutions are formal and informal social constraints (rules, habits, constitutions, laws, conventions) which apparently reduce the total scarce resources available”. However institutions and organisations interact in different ways: the first interaction is that institutional frameworks fundamentally influence how organisations come into existence and how they evolve (Bandaragoda, 2000).

1.4.3 Power relations

Rath (1997) defined power relations as “what enables who to do what to whom” and as “the matrix of possible actors and their possible interactions”. Power relations are dynamic; they can change over space and time (Cornwall, 2004). There are different types of power relation and each type of power is determined by pre-existing institutional, organizational and ideological configurations (Woods, 1994).

Nuijten, (2005) documented three categories of power: strategic power “refer to a ubiquitous feature of human interaction, insofar as it signifies structuring possible field of action of others”. Institutional or governmental power “refers to more or less systematized, regulated and reflected modes of power that go beyond the spontaneous exercise of power over others, following a specific form of reasoning” and structural or domination power “is a particular type of power relationship that is stable and hierarchical, fixed and difficult to reverse”. These types of power are embedded in people’s livelihoods and can influence the access and management of forest resources (Nuijten, 2005). Agrawal and Ribot (1999) identified four types of decision-making power that are crucial to understanding the decentralization process; a) power to create rules and modify the old ones, b) power to make decisions about how a particular resource should be managed and utilized, c) the power to implement and ensure compliance with rules and d) power to adjudicate disputes arising within the process of implementing decentralization (Agrawal and Ribot 1999).

1.4.4 Interaction between institutions, organisation and power relations

Institutional frameworks fundamentally influence how organisations come into existence and how they evolve (Bandaragoda, 2000). Power relations influence institutions and organisations in their processes. The bottom line is that all of the above are variables involved in forest resources management. Institutions, organisations and power relations are subject to influence by each other (Woods, 1994).

1.4.5 The policy making process

According to Krauss (1989) policymaking involves a combination of five processes, which are: identifying policy problems, formulating a policy proposal, legitimizing public policy, implementing public policy and evaluating public policy. However, many scholars have criticized these phases for being too simplistic. According to Thomas and Grindle (1990), the linear model involves three phases: agenda, decision and implementation. According to Sutton (1999), the linear model is the most widely-held view explaining different policy making processes, in the linear model decisions for policy making are made in a series of sequential phases. The incrementalist and the mixed-scanning models are also among important models of the policy making process (Sutton, 1999). The incrementalist model specifically focuses on small changes to existing policies (Sutton, 1999). In the model, the policy-making process is viewed as serial, thus the policy makers have to keep coming back to policy problems because new approaches to the problems are developed. Major changes to different policies occur through a series of small steps (Sutton, 1999). According to Lindblom (1968) the “policy process is regarded as one of disjointed incrementalism or muddling through”

The mixed-scanning model “covers the middle ground between the linear and incrementalist models” (White, 1994). The model suggests policy makers have a broader view of possible options in the policy making process and do a more in-depth examination of those options before selecting the best option (Sutton, 1999).

Juma and Clark (1995); Sutton, (1999) have argued that failure of the policy to achieve its intended objective can be attributed to poor policy implementation for example lack of political will to implement the policy, poor management or shortage of resources. In response

to this, I acknowledge that even without flaws in policy design still PFM policy may not achieve its policy objectives because some failure of PFM policy may be attributed by weakness in policy implementation. If the process of policy-making is deficient, it is likely to produce weak policy design. Then if policies themselves are deficient, this may lead to further deficiencies upon implementation, hence failure of the policy to achieve intended objectives, for example devolution of power to local communities in PFM (for the case of this study).

1.5 Rationale of the study

Most of the reviewed Participatory Forest Management, Co-management and Community forestry literatures in this study drew on experiences in Latin America, Asia and Africa. A failure of PFM to achieve devolution of power to communities has been widely noted (Heinen and Mehta, 1999; Kellert *et al.*, 2000; Bajracharya *et al.*, 2006; Meshack *et al.*, 2006; Lund and Treue, 2008; Gobeze *et al.*, 2009; Mustalahti and Lund, 2009; Dressler *et al.*, 2010; Chhetri *et al.*, 2012; Mogoi *et al.*, 2012; Lund and Saito-Jensen, 2013; Mohammed and Inoue, 2012; Dyer *et al.*, 2014; Treue *et al.*, 2014; Adhikari, 2014; Bekele and Ango, 2015; Chomba *et al.*, 2015; Green and Lund, 2015; Senganimalunje *et al.*, 2015; Chinangwa *et al.*, 2016; Mutune and Lund, 2016; Sungusia and Lund, 2016; Jacob and Brockington, 2017; Luintel *et al.*, 2017; Etongo *et al.*, 2018; Mollick *et al.*, 2018; Das, 2019; García-López, 2019; Kabir *et al.*, 2019).

However, none of these governance studies assessed the whole process of PFM policy and identified where in the policy process these failures occur, and what causes them. Instead, they investigated the impact of PFM on forest governance at village level and excluded the actual implementation at national and district levels as part of their overall impact assessment. Without assessing the actual practices of the whole programme at different levels of implementation, it may be hard to judge whether the overall programme is achieving its objectives or not (Jere *et al.*, 2000). This is because success or failure of PFM to achieve its governance objectives may depend on technical support provided by higher authorities. Therefore, individual surveys, key informant interviews and focus group discussions with local communities were carried out, for chapter 3 and part of chapter 5. The interviews at community level focused on understanding 1) to what extent did Participatory Forest Management achieve devolution to local communities, and 2) where this fell short of explicit policy objectives, what are the effects of policy design flaws found in chapter 2,

implementation flaws from chapter 3 and the effects of local community dynamics. Thereafter, I carried out interviews with forest officials who are implementers of PFM policies at national and district levels for chapter 5. The interviews explored information on how PFM policy was implemented at the national and district levels

This study differs from other PFM studies as the study examines the policy design, formulation and implementation at different levels to identify where in the policy process these failures occur and what causes them. This approach is likely to increase the validity of the results and conclusions drawn from this study. This is because success or failure of the PFM policy to achieve its objectives may be attributed by poor process of policy formulation that has contributed to weak policy design and led to further deficiencies downstream during implementation. Therefore examining the whole process of PFM policy may give insights of where in the process failure occurs, this would help governments and international organisations to ensure that appropriate policies and measures are designed to achieve effective devolution in PFM. I used multiple data types in this study to both capture and understand the issues at hand in order to come out with validity conclusions. Scholars have suggested that it is important to use methods triangulation and multiple data types when assessing impacts of a programme, because it can give a more robust impact assessment and increase validity of the results and conclusions in the absence of historical data (Pandit and Bevilacqua, 2011).

This study used dimensions such as Actors, Empowerments and Accountability as proposed by Agrawal and Ribot (1999) in their decentralization framework to understand where in the policy process these failures occur, and what causes them. The framework provides a better understanding of the key criteria (actors, powers, and accountability) for achieving meaningful devolution when compared with other decentralisation theories (e.g. participation and common pool resource theories by Arnstein, (1969) and Ostrom, (1990) respectively).

One notable weakness of previous studies that this study aims to address is the focus of surveys at the household level (e.g. Chomba et al., 2015; Das, 2019). Both household and individual surveys aim to generalise the findings to a wider population, however household surveys may lead to an unrepresentative sample, particularly in terms of gender, as household heads (and thus the respondents addressed) are normally men. In order to assess whether

PFM has achieved devolution, we need studies that ensure all the different socio-economic characteristics of a heterogeneous community are considered, which may influence respondents' engagement with, and knowledge and perceptions of PFM. Chapter 3 used individual surveys, focus group discussions and key informant interviews to assess whether PFM has achieved devolution in a well-funded exemplar case, by comparing observed outcomes to stated policy objectives and the decentralization framework developed by Agrawal and Ribot (1999).

One significant limitation to policy analysis studies conducted to understand the process of policy formulation (e.g. Mukherjee and Howlett, 2015; Craft and Howlett, 2012; Béland, et al., 2018) is the lack of field based data, because these studies used only desk- based data. Both desk-based and field-based data contribute to general understandings of the process of policy formulation. However, desk-based data may miss study specific nuances that happened during fieldwork, this may reduce validity of the results and conclusions drawn from the study. Therefore, there is a need for empirical evidence to examine the process of PFM policy formulation to ensure that all policy constraints are identified. To the best of my knowledge, this is the first case analysis of the PFM policy formulation using field-based data. Therefore, in chapter 4 I conducted interviews with stakeholders that were involved in the process of PFM policy formulation to understand why and how the failings identified in policy design (in chapter 2) and outcomes (in chapter 3) came about? These interviews focussed on 1) where the idea of PFM policies came from 2) which stakeholders had greater/lesser influence or power over policy formulation or whose views and interests prevailed?

Other policy studies examined Participatory Forest Management as it unfolds in practice on the ground and concluded that current policies appear not to support devolution of power to local communities (Bruce, 1999; Lynch, 1998; Lindsay, 2004; Mustalahti and Lund, 2009; Mekonnen, and Bluffstone, 2015; Mutune and Lund, 2016). However, the studies have ignored policies and guidelines and focussed particularly on forest acts (legislation) without considering them in relation to theories of devolution or the international aspirations. Therefore this study aim to fill this knowledge gap by analysing all PFM policies (forest acts, policies and guidelines) across 5 countries and comparing them to Agrawal and Ribot's (1999) decentralisation framework and the aspirations of the Rio Declaration (Chapter 2).

Therefore, the findings of this study are likely to be pertinent to PFM projects and other forms of Community Forestry at regional and global level.

1.6 Thesis aim and research questions

1.6.1 Overall study objective

The overall aim of this thesis is to determine to what extent does Tanzanian PFM achieve devolution, and what explains its failure to do so.

1.6.2. Research questions

I address the following research questions in successive chapters

RQ1; To what extent are decentralised forest policies designed to achieve devolution?

RQ2; To what extent has Tanzanian PFM achieved devolution (in a well-funded exemplar case).

RQ3; To what extent does the process of PFM policymaking contribute to PFM failure?

RQ4; To what extent the process of PFM policy implementation at national, district and village levels contributes to the PFM failure?

1. 7 Tanzania as a case study site

1.7.1 Forest resources and forestry sector in Tanzania

Forests in Tanzania cover 48.1 million ha, approximately 55 percent of the total land area in Tanzania mainland (MNRT, 2015). Almost two-thirds of the forest and woodland area consists of woodlands on general lands¹ (URT, 1998). The forests in Tanzania offer habitat for wildlife, beekeeping, unique natural ecosystems and genetic resources (URT, 1998). Also forest is a major source of bio-energy in Tanzania: it is the main source of fuel for the rural population and accounts for about 90% of the total energy consumption (Tom Blomley and Iddi, 2009). In 2006, forest accounted for 20.1% of the Gross Domestic Product (MNRT, 2008) (Table 1.1). The forest sector employs 3 million persons per year (MNRT, 2008). Services and goods offered by forest sector include pasture for livestock, raw materials for forest product industries and protection of watersheds (e.g. catchment forest) (URT, 1998). Despite all the

¹ "general land" means all public land which is not reserved land or village land and includes un occupied or unused village land (Land Act of Tanzania 1999, Chapter 113. p.10)

benefits offered by forests, deforestation is a major environmental problem in Tanzania that hampers the development of the forest sector and the country has one of the ten highest rates of deforestation in the world (FAO, 2015). To overcome the situation, afforestation campaigns have been carried out throughout Tanzania involving the private sector, communities, Non-Governmental Organizations and the public. For example, in 1999, a national campaign on tree planting was initiated and in that year about 100 million trees were planted throughout the country (MNRT, 2009).

Table 1.1: Contribution of different sectors to Tanzania Gross Domestic product (GDP)

Sector	% contribution to GDP
Agriculture	26.7
Forest	20.1
Tourism	14
Mining	3.5

Source; (MNRT, 2008; URT, 2009a ; 2015 and 2020)

1.7.2. Forestland tenure changes in Tanzania

Tanzania's Forest Policy of 1998 defined tenure as a means of holding land through defined arrangements (URT, 1998). Forestland tenure includes clear ownership of the forests, tenancy with regard to management and utilization of the forests together with all arrangements on how the forest will be used (FAO, 2014). In connection to that, FAO, (2014) went further and defined forestland tenure as clear arrangements that defined who can use what kind of forest resources per defined time and conditions. Past reviews on forestland tenure changes in Tanzania have divided forestland tenure changes into three periods, namely pre-colonial, colonial and the period after independence.

During the pre-colonial period, forests were under common and open access regimes managed under traditional institutions. The population was low during this period that reduced the impact of shifting cultivation and grazing on the forest (Zahabu *et al.*, 2009), and the period was characterised by minimal forest resource exploitation (Nhantumbo *et al.*, 2003; Malimbwi and Munyanziza 2004). The minimal exploitation of forest resources was contributed by lack of technological capacity to overexploit the forest resources and limited

markets (Malimbwi and Munyanziza 2004). In Tanzania, like in many other African countries, during the pre-colonial period most of the land that was left uncultivated was under communal ownership and the forest resources found on the land were used by individuals for their livelihoods (Ball *et al.*, 2007). In addition, during this period, a number of customary institutions used to control forest management, governance and use, the customary institutions employed in forests included beliefs, taboos and customs (Grundy, 1990).

Forests continued to be exploited during the Colonial Period in Tanzania which included the German (1891-1914) and the British (1920-1961) colonial eras. There was high exploitation and encroachment of forests during the First World War (1914-1918). Thus the British government, after claiming Tanganyika (as the mainland part of Tanzania was known prior to independence), attempted to restore all encroached forests and make arrangements for forest management (Ylhäisi, 2003). During the colonial period, traditional institutional arrangements and practices were regarded as increasing deforestation and hence leading to environmental degradation (Pendzich *et al.*, 1994). Traditional or customary laws gave rights to all villagers living around the forest reserves to utilize the resource for their livelihoods. This situation led the colonial government to transfer all the unoccupied land into state ownership (Ylhäisi 2003; Zahabu *et al.*, 2009). All customary tenure systems were abolished and protected areas were established, in which local people were not allowed to access the forests for their livelihoods (Pendzich *et al.*, 1994). All the rights to use these natural resources were held by the state (Nhantumbo *et al.*, 2003).

The post-independence period includes the policy of Ujamaa, which promoted social collectivism, emphasizing people working together in different activities such as agriculture so as to benefit the whole population (Jennings, 2002). In implementing Ujamaa policy, the government forced families to move from their ancestral land to suitable sites for agricultural production where the government could easily provide support for agricultural and other facilities (Schneider, 2004). The Tanzanian government continued to expand the protected areas, including forest reserves, and no one was allowed to access forests for livelihoods (Holmes 1995; Malimbwi and Munyanziza 2004). Deforestation and forest degradation increased during the post-independence period because local communities lacked incentives

to manage the forest resources sustainably and the state lacked the resources to enforce protection (Misana *et al.*, 1996).

Policy and institutional reforms implemented during this period aimed to enhance national economic growth (URT 1998). In 1973, according to the Villagisation Act, the allocation of land for cultivation, which was previously the responsibility of the traditional heads of the community ("Chiefs"), was delegated to Village government structures such as the Village Councils. The first village councils were elected by rural communities in 1975, and were responsible for the management of village lands and forest resources as trustees with villagers as beneficiaries (Banyikwa 1991; URT 1997; Warner 1997). Since then, the role of local institutions and traditional values in managing forest resources has declined (Kaoneka *et al.*, 2000). Legal institutions (the Village Councils), which were given the power to deal with land issues in Tanzania until the 1980s, had low capacity to perform their activities effectively (Zahabu *et al.*, 2009). During this period the country was under intense pressure from international financial institutions such as world Bank and International Monetary Fund, which wanted to make significant economic reforms (Nhantumbo *et al.*, 2003). Therefore, the situation of global economic reforms forced Tanzania's government to shift from a command to a market economy in the mid-1980s (URT 1998 ; Nhantumbo *et al.*, 2003).

During the liberalised economy period, starting in the 1980s, there were a number of political and economic reforms in Tanzania. In 1992, the government of Tanzania adopted multiparty democracy and registered 11 political parties. In 1994, Tanzania held its first multi-party election. Economic reforms during this period included a greater interest in sustainable forest management so as to restore the degraded forests, whereas since independence the institutional reforms in Tanzania were focused on economic growth rather environmental management (Nhantumbo *et al.*, 2003). This therefore facilitated a change of policy, including forest policies, with a significant shift in thinking towards the development of participatory natural resource management processes including involving local communities in forest management (Petersen and Sandhövel 2001). The government of Tanzania revised its forestry and land tenure policies to be in line with the changing socio-economic environment (Nhantumbo *et al.*, 2003). Reforms in forest management practices occurred in the 1990s whereby a number of pilot Participatory Forest Management (PFM) initiatives started in

Babati, Manyara Region and Mgori, Singida Region. A large number of donors, government as well as NGOs, supported the implementation of the pilot PFM projects. Following these pilot projects, from 1995 to 2003, a number of policies and laws in the forest sector and related sectors were reformed to address PFM and provide a conducive environment for PFM implementation (URT, 1995; URT, 1998; URT, 1999a; URT, 1999b; URT, 1999c; URT, 2001; URT, 2002). Since then, a range of governmental and non-governmental stakeholders have been actively involved in promoting PFM across the country (Blomley and Ramadhani 2006).

1.7.3 The PFM programme in Tanzania

Participatory Forest Management in Tanzania consists of two pillars: Joint Forest Management (JFM) and Community Based Forest Management (CBFM), both aimed at improving rural livelihoods, governance and forest conservation (URT, 2001). However, JFM and CBFM differ in definition and implementation. In JFM the government retains ownership of the forests and only shares duties and benefits with the local communities while in CBFM the forests are owned by local communities who are the users and managers of the forest resources (Alden-Wily, 1997). Community Based Forest Management takes place on village land, Community Forest Reserves or Private Forest Reserves (URT, 2007). Joint Forest Management takes place in forests on “reserved land” land that has been set aside (or reserved) by government as part of either Local Authority or National Forest Reserves (URT, 2013).

In 2006, it was estimated that 3,672,854 hectares were under some form of PFM involving 1,821 villages (MNRT, 2006). The area under PFM arrangement continued to increase whereby in 2012 it was estimated that 7,758,788 hectares were covered by PFM arrangements involving 2,285 villages across Tanzania (Table 1.2) (URT 2012). Participatory Forest Management approaches in Tanzania are linked to other macro-economic policies of addressing poverty reduction. For example, Tanzania Development Vision 2025, The National Poverty Reduction Strategy Papers (PRSP) of 2000 and 2004 and Tanzania Assistance Strategy (TAS) (URT 2000).

Table 1.2: Scale of PFM in Tanzania

	CBFM	JFM	PFM Total
Total area of forest covered by PFM arrangements (hectares)	2.3m	5.4m	7.7m
Number of villages involved in PFM ¹	1,457	1,052	2,285
Number of villages with declared / gazetted village forests or signed Joint Management Agreements	409	171	580
Number of districts where PFM is operational	69	65	77
Primary forest types where CBFM/JFM has been promoted	Miombo, coastal and acacia woodlands	Montane, mangrove and coastal forests	

Source; (URT, 2012). ¹ Number of villages with CBFM established or in process+ Number of villages with JFM has been established, or in process of being established.

1.7.4 Institutional structure of PFM implementation in Tanzania

Forest resources in Tanzania are under the Ministry of Natural Resources and Tourism. Within the ministry, there is the Forest and Beekeeping Division (FBD) and the Tanzania Forest Service (TFS), both are concerned with forest resources but with different responsibilities (Figure 1.1). The history of TFS and FBD is provided in Table 1.3. Principally, the FBD is responsible for development of the forest policy, laws and regulations and overseeing their implementation in the sector. While TFS as an Executive Agency has a mandate for the management of national forest reserves (natural and plantations), bee reserves and bee resources on general lands (Forest Act, 2002). The head of the TFS is the Chief Executive who is responsible for the operation of the Agency and exercises statutory powers as vested in him by statutes (Executive Agencies Act Cap. 245 Revised Edition 2009; Forest Act No. 14 of 2002; and Beekeeping Act No.15 of 2002). The Chief Executive is assisted by three Directors (Director of Resource Management, Director of Planning and Resource Utilization, Director of Business Support Services), four Heads of Units and seven Zonal Managers located in Northern Zone, Southern Zone, Lake Zone, Central Zone, Western Zone, Southern Highlands Zone and Eastern Zone. The TFS Head Quarters is responsible for providing Zonal offices with

technical and professional support, establishing standards, systems and procedures for resources management, utilization, capacity building, coordinating the Agency's technical services, monitoring and evaluating the performance of field operations. Zones managers are responsible for all operational matters of the Agency and TFS Head Quarters deals with strategic management issues of the Agency. TFS has 169 District Forest Managers, one located in each of the country's Districts. There are also Forest Extension Officers located in either Division, ward or Village but this depends on the availability of forest staff.

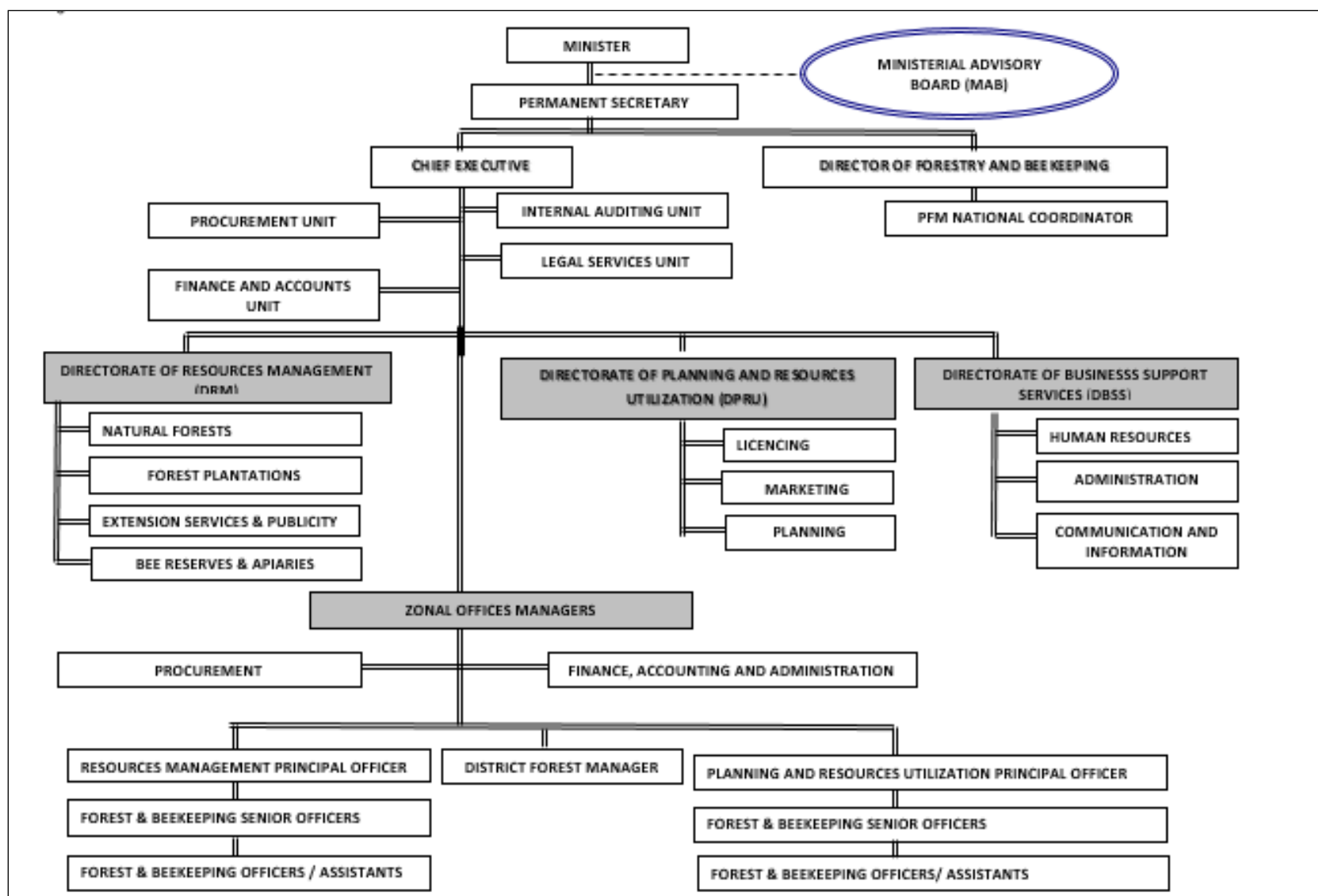


Figure 1.1: Organisation structure for central government: implementers of Participatory Forest Management. Source; (URT, 2010)

Table 1. 3: Evolution of government forest institutions

Dates	Status
1899 - 1918	Local forest bureau
1918 - 1959	Forest Department (Independent Department) under British Administration
1949 -1971	Beekeeping Department - Ministry of Agriculture.
1959- 1960	Forestry Department - Ministry of Natural Resources
1960 - 1961	Forestry Division - Ministry of Agriculture and Co-operative Development
1961-1963	Forestry Division - Ministry of Lands, Forests and Wildlife
1964 - 1966	Forestry Division - Ministry of Agriculture, Forests and Wildlife
1967 - 1969	Forestry Division - Ministry of Agriculture Food and Cooperatives
1970 - 1979	Forestry Division - Ministry of Natural Resources and Tourism
1977 - 1980	Beekeeping Section - Department of Wildlife, Ministry of Natural Resources.
1980-1981	Forestry Division - Ministry of Livestock and Natural Resources.
1980 - 1984	Beekeeping full Department - Ministry of Natural Resources and Tourism.
1981 -1984	Forestry Division - Ministry of Natural Resources and Tourism
1985 - 1986	Forestry and Beekeeping Division - Ministry of Natural Resources and Tourism
1986 - 1990	Forestry and Beekeeping Division - Ministry of Lands, Natural Resources and Tourism
1991-1994	Forestry and Beekeeping Division - Ministry of Tourism, Natural Resources and Environment
1995 - 2010	Forestry and Beekeeping Division - Ministry of Natural Resources and Tourism (Still exist)
2011	Tanzania Forest Services (TFS) Agency was establishes to assist FBD and is ongoing

Source; (URT, 2010)

In Tanzania, Local Forest Reserves are under Local Authority control in the Ministry of Regional Administration and Local Government. The country has thirty Regional Natural Resource Advisors and thirty Regional Forest Officers within corresponding Regions. In each of the 169 districts, there is a District Executive Director (responsible for planning, leading, coordinating, directing, managing, monitoring and evaluating the implementation of all function of the council), a Head of Department of Land, Natural Resources and Environment and a District Forest Officer (Figure 1.2). At the community level (division, ward and village), the best-known forest officials are the forest extension officers but availability of these forest staff at community level is not guaranteed.

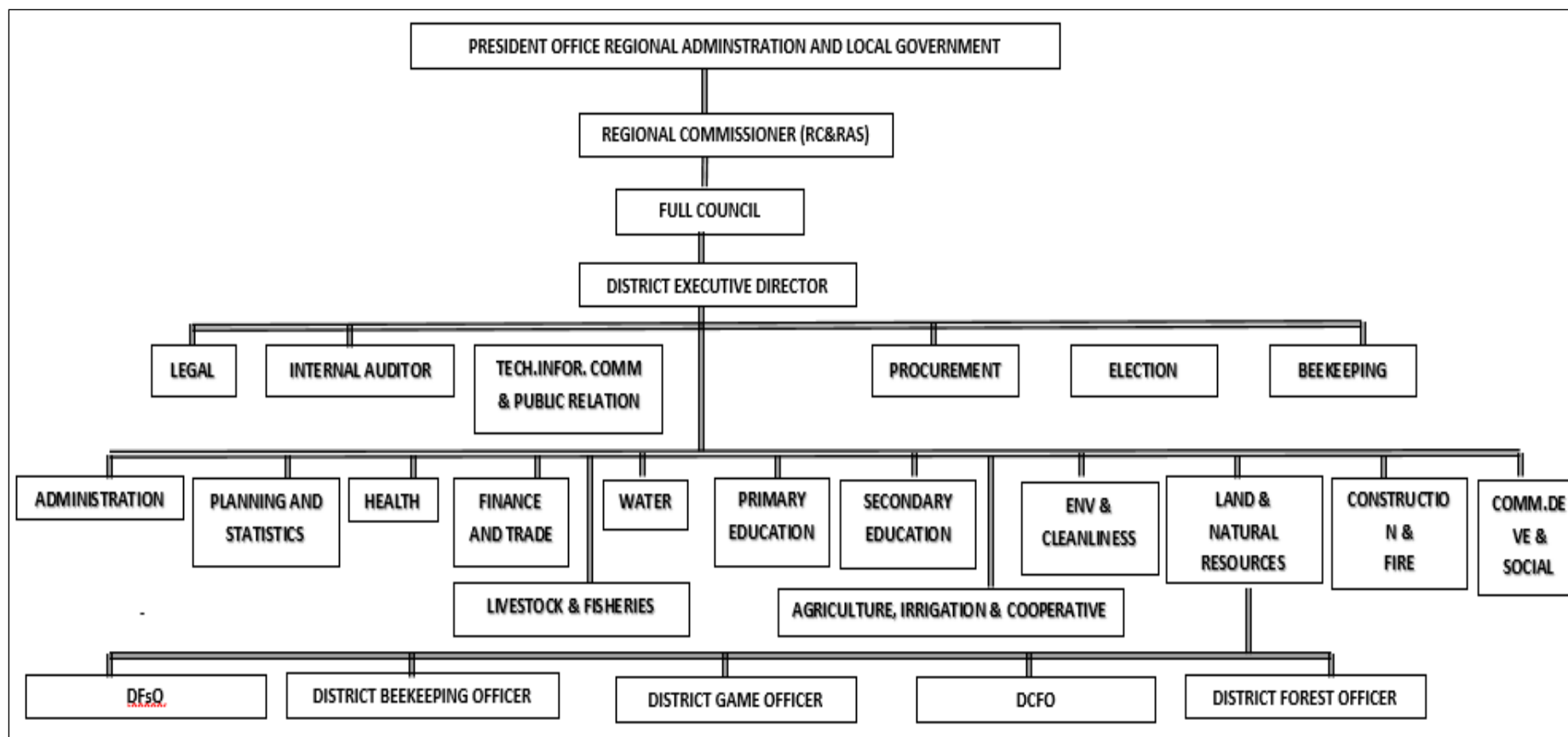


Figure 1.2: Organisation structure for local government: implementers of Participatory Forest Management

In Tanzania, the lowest administrative institution recognized by the government is the village council, which is headed by a village chairman. Village councils are responsible for governing all matters relating to the community. According to PFM policies, villagers are required to elect a committee (Village Environmental Committee) to manage their forests (CBFM or JFM) on their behalf (URT, 2002);URT, 2007). In CBFM, local people play a role as both managers and forest owners. However, management of CBFM is exercised through village institutions known as Village Environmental Committees elected by all community members. Management decisions in CBFM are expected to be taken collectively by all community members, and the institution is expected to be both downwardly accountable to the community and upwardly to the central government (URT, 1998; URT, 2002; URT, 2007).

Currently the Tanzania Forestry Service manages about 506 forest reserves including 1.4m ha of catchment; 115,000 ha of mangrove; 233,837 ha of nature reserves and 89,000ha of plantation forests. The Forestry and Beekeeping Division administers about 161 forest reserves via Local Government Authorities (MNRT, 2016). FBD promote villages to establish Village Land Forest Reserves (CBFM) and Local Authorities to enter into Joint management agreements with local communities in management of Local Authority Forest Reserves (JFM). Tanzania Forestry Service promotes Joint Forest Management with local communities to manage National Forest Reserves(MNRT, 2016).

1.8 Study area

Chapter 2 focused on all forms of PFM policy in Tanzania, Uganda, Kenya, Ethiopia and Malawi (Figure 1.3). The rest of the chapters focus on Tanzania. Chapters 3 and 5 focused on one of the forms of PFM in Tanzania, Community Based Forest Management, using SULEDO Village Land Forest reserve in Kiteto district as a case study at the community level (Figure 1.4). Chapter 4 (policy formulation) considered all forms of PFM arrangements. Data on district level implementation for chapter 5 were collected from 10 districts (Kilwa, Serengeti, Chato, Kiteto, Kilombero, Kilosa, Iringa rural, Handeni, Lushoto and Ireje) (Figure 1.3).

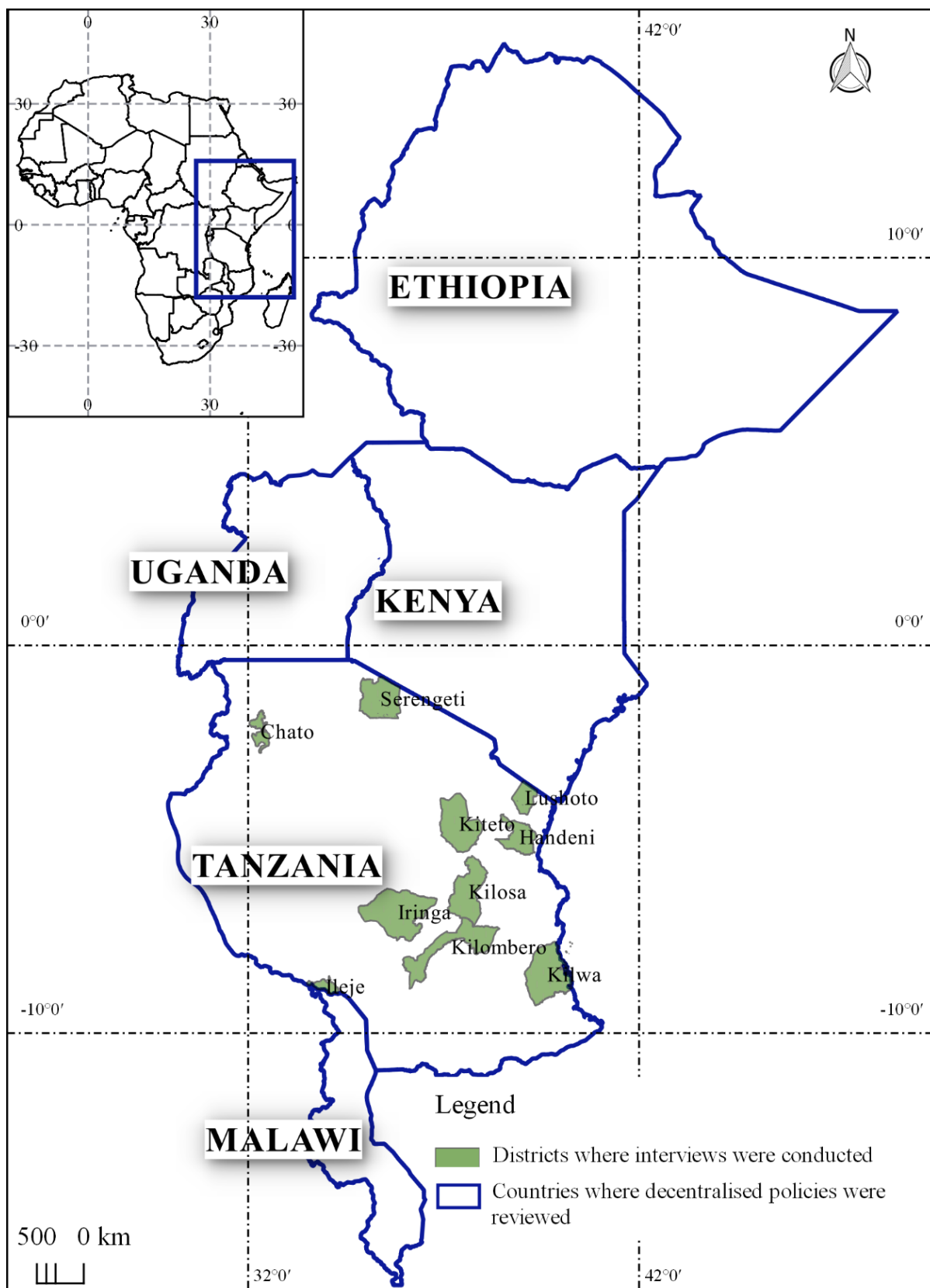


Figure 1.3: Study countries and districts

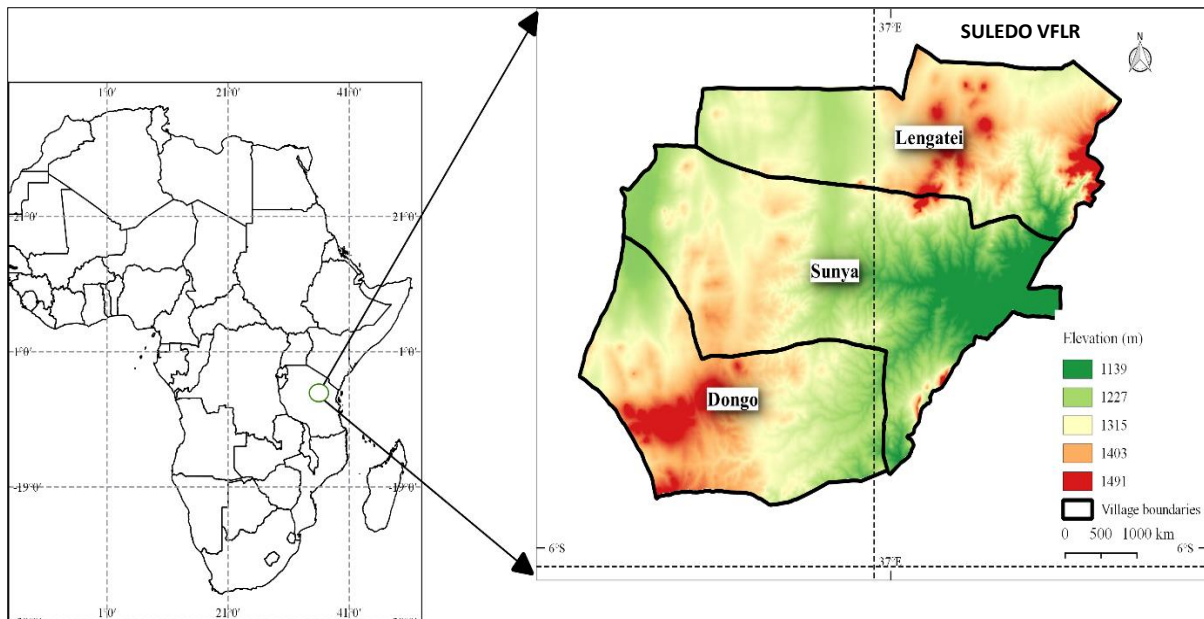


Figure 1.4: Study area: SULEDO Village Land Forest Reserve

1.9 Data collection and analysis

I conducted fieldwork for this study from January to September 2017. Study design, methods for data collection, sample sizes, data collection methods and analytical procedures are detailed in respective chapters.

1.10 Ethical procedures

Respondents were offered the opportunity to cancel or leave the interviews at any time they wished to do so. Locally appropriate participant information was read to all participants and written copies, with my and research assistant photo and contacts, were given to all participants (Appendices 1, 2, 5, 6, 9 and 10). The aim was to provide the purpose of the study, the composition and contact details of the research team (me and any research assistant), what data would be collected, how the data would be used and what their participation would require of them (i.e. the subjects to be covered and the time that would be required). The interviews were structured to ensure that there were break points and respondents were checked if they were happy or unhappy to carry on with the interview. In addition specific consent arrangements applied to different groups of respondents (e.g. illiterate and literate) (Appendices 3, 4, 7, 8, 11 and 12) and employed as follows;-

a). In rural areas, the focus was on obtaining oral consent as many informants were illiterate and it would be counter-productive to ask for signatures on something they did not understand. All respondents were provided with participant information and in all questionnaires, there was a space to tick to indicate that participants' information has been read out and understood and a tick showing that the participant has orally consented. All participants agreed to the following; that I will not use their real name in reports and papers that will be published but I may describe their role in PFM (e.g. I used representative of interest groups when referring to marginalised groups at village level and representative individuals when referring to surveyed individuals).

b). With key informants, a written consent form was used in case I expected the whole targeted group to be literate (e.g. NGOs, national and district officials), specifically when I was collecting data from the key informants such as policy makers on the process of PFM policy formulation and forest officials at national level on how PFM policy was implemented. As part of obtaining consent, I ensured that the participants agreed to the following: I will not use their real name in reporting information from Key Informants. However, I may describe their position, role and type of organisation (e.g. "a senior civil servant from Tanzania Forest Service" when referring to KIs from the forest service, or "representative from Village Environmental Committee", when referring to KIs from the forest committee). I offered respondents the opportunity to read a copy of the transcript and ask for parts to be removed. Once the transcript had been agreed, I did not offer any further involvement. The study was approved by the Bangor University, College of Environmental Sciences and Engineering Ethics Committee, reference number cns2016knm1.

1.11 Authorship

Chapter 2 and 3 were prepared as manuscripts for the *International Forestry Review*; <https://doi.org/10.1505/146554820828671544> (Appendix 13) and *Forest Policy and Economics*; <https://doi.org/10.1016/j.forpol.2019.102077> (Appendix 14) respectively, where they have now been published. Therefore, in these chapters I used 'we' rather than 'I' since the authors of the papers are multiple.

Chapter 2. ARE POLICIES FOR DECENTRALISED FOREST GOVERNANCE DESIGNED TO ACHIEVE FULL DEVOLUTION? EVIDENCE FROM EASTERN AFRICA

ABSTRACT

Decentralised forest management approaches are ostensibly designed to increase community involvement in forest management, yet have had mixed success in practice. We present a comparative study across multiple countries in Eastern Africa of how far decentralised forest policies are designed to achieve devolution. We adopt the decentralisation framework developed by Agrawal and Ribot to explore whether, and how, devolution is specified in Tanzanian, Kenyan, Ugandan, Malawian and Ethiopian forest policies. We also compare them to the commitments of the Rio Declaration. In all five countries, the policies lack at least some of the critical elements required to achieve meaningful devolution, such as democratically elected, downwardly accountable local actors and equitable benefit sharing. Calling an approach ‘community’ or ‘participatory’, does not mean that it involves all residents: in Kenya, Uganda and Ethiopia, policies allow a small group of people in the community to manage the forest reserve, potentially excluding marginalised groups, and hence limiting devolution. This may lead to elite capture, and effective privatisation of forests that were previously managed *de facto* as common property by surrounding communities. Therefore, even without flaws in implementation, these decentralisation policies are unlikely to achieve true devolution in the study countries.

Keywords: Decentralization Policies, Devolution, Actors, Accountability, Empowerments

2.1 Introduction

Before the 1980s, centralised forest policies in many countries excluded local communities, while often failing to prevent degradation of forest resources (Haller et al., 2008). Whilst the concept of community involvement in forest management has been developing since the early 1950s, the idea gained momentum in the 1980s due to a shift in rural development thinking and practice (Barlett and Malla 1992; Timsina 2003). Structural adjustment programmes, supported by world financial institutions such as the World Bank and International Monetary Fund (IMF) also contributed to the popularity of the concept (Kowero *et al.* 2003; Ribot, 2002). These financial institutions supported decentralisation as part of downsizing central governments and forced African governments to introduce decentralisation reforms in all sectors, including the forest sector (World Bank, 1992). Furthermore, in the early 1990s, a number of international frameworks emerged demanding local community involvement in forest management as an intrinsic component of sustainable forest management principles. These include Chapter 11 of Agenda 21 adopted at the United Nations Conference on Environment and Development (UNCED) the Convention on Biological Diversity; the Rio+20 Declaration; the African Timber Organization, and Sustainable Development Goals (ATO 2003; CBD 2003; UN, 1992; 2012 ; 2015). All of these frameworks require forest policies to allow indigenous peoples and local communities, including women and the poorest individuals, to have rights to participate in forest management and access forest resources benefits (ATO 2003; CBD 2003; UN, 1992; 2012; 2015).

Following this, in the 1990s, forest policies in almost all countries in Africa and Asia adopted more decentralised approaches as a way to improve forest governance and rural livelihoods (Schreckenberg and Luttrell 2009; White and Martin 2002). The first literature explicitly referring to forest decentralisation approaches was published in 1982 (Sen, 1982)². The concept of forest decentralisation has been used in numerous articles (e.g. Adam and Eltayeb, 2016 and Rondinelli et al., 1989), evolving and taking different forms from country to country due to differences in actors and the political context in which it is implemented (Odera, 2009). Among these forms are Community Forest Management (CFM), Collaborative Forest Management (CoFM), Participatory Forest Management (PFM), and Co-management (see

² Search in Web of Science for "community forest manag*" OR "participatory forest manag*" OR "collaborative forest manag*" OR "co-management" AND (forest* OR natural)

table 2.1). Despite the diversity of these terms, all imply some degree of devolution of forest resources management to local people (Agrawal and Ribot 1999; Crook and Manor 1998).

Table 2. 1: Types of decentralised forest governance considered

Country	Name	Programmes	Type of land /forest/tenure	Source
Tanzania	Participatory Forest Management (PFM)	Village Land Forest Reserves (VLFR)	Forests on village land	URT, 2007.p.1 and 3; URT 2002, s.33.pg 35
		Community Forest Reserves (CFR)	Forests on village land	URT, 2007.p.1 and 4; URT 2002, S.42.pg 46
		Joint Forest Management (JFM)	Forest reserve managed and owned by government (central or local authority)	URT 2013.p. 1
Malawi	Participatory Forest Management (PFM)	Community Forest (CF)	Unallocated customary land	GoM, 2010,p. 48, 2007, 2001 and 1996
		Co-management	Government forest reserve	GoM, 2010,p.48, 2007, 2001 and 1996
Kenya	Participatory Forest Management (PFM)	Participatory Forest Management (PFM)	State forest or local authority forest	GoK, 2005
Ethiopia	Participatory Forest Management (PFM)	Participatory Forest Management (PFM)	State forest	FDRE 2007,s.3.p.8
Uganda	Collaborative Forest Management (CFM)	Collaborative Forest Management (CFM)	Takes place in central or local forest reserves	GoU, 2003,s.15
	Community Forest (CF)	Community Forest (CF)	Forest on community land†	GoU, 2015

† “Community land” means former public land held by the District Land Board, Land designated as “fragile ecosystem” by NEMA (by way of National Environment Status of 1995), Areas to be planted as community managed plantations and Woodland/pastoral areas communally used by a community (GoU, 2015, p.2).

Since the introduction of this bottom-up approach, scholars have documented mixed impacts (e.g., Bekele *et al.*, 2015, Bowler *et al.*, 2012, Hamza and Kimwer 2007, Lambrick *et al.*, 2014, Lund *et al.*, 2018, Ngaga, *et al.*, 2003, Senganimalunje *et al.*, 2015). Reviewing a range of previous studies, Egungyu and Reed (2015); Lund and Treue (2008); Persson and Prowse, (2017) and Vyamana (2009) found that women and the poorest people are often excluded from gaining benefits. Mustalahti and Lund (2010) found that some district councils failed to approve village by-laws on time and hence frustrated community efforts to obtain legal title to their forests. Chinangwa *et al.* (2016); García-López, (2019), Lemenih and Bekele (2008) and Mogoi *et al.* (2012), noted that some members of committees are appointed by village leaders rather than being locally elected by residents, or else lacked power to enforce the forest rules. Nelson and Agrawal, (2008) concluded that in a majority of cases across sub-Saharan Africa, government captures high financial resource values and the government is unlikely to devolve full authority of those resources to local communities. However, Lund and Treue (2008) found that transferring rights and powers to local communities resulted in increased efficiency of forest revenue collection in Tanzania, and Bekele *et al.* (2015) found reduced conflicts over forest use and management in Ethiopia.

Although it can be difficult to separate limitations in the design of policies, from flawed implementation, (flaws in design may beget errors in implementation), it is useful to explicitly measure how far forest legislation supports decentralisation. Previous studies (e.g. Bruce, 1999; Das, 2019; Lindsay, 2004; Lynch, 1998 ; Mollick *et al.*, 2018; Mekonnen and Bluffstone 2015; Mustalahti and Lund 2009; Mutune and Lund 2016), have considered this, focussing particularly on forest acts (legislation). For example Bruce, (1999) compared how property rights and organizational forms have been deployed to support community forestry in selected countries in Africa, Asia and America, and suggested that more complex forms of organization are required to enable greater management autonomy. Lindsay (2004) detailed how legislation typically impedes or supports decentralisation in enhancing livelihoods outcomes, and found that decentralisation falls short of improving livelihoods due to the limited rights that legislation transferred to local communities. Mustalahti and Lund (2009), reviewing cases in Tanzania, Mozambique, and Laos found that the Forest Act in Tanzania lacks clarity on the process by which local communities attain rights, and the process of losing rights. Mutune and Lund (2016) examined Participatory Forest Management (PFM) in Kenya

as it unfolds in practice on the ground and concluded that current policies appear not to support effective participation, focusing mainly on the livelihoods of local communities rather than governance per se. In their extensive review of past forest policies and current forest developments in Ethiopia, Mekonnen and Bluffstone (2015) indicated that although Ethiopia is implementing policies for decentralised forest governance, all the major forests continue to be owned and managed by the Ethiopian government which has limited communities' capacity to enforce rules, resulting in high rates of deforestation and forest degradation. Das (2019) and Chomba et al. (2015) studying forest decentralisation in India and Kenya respectively, highlighted that forest decentralisation policies transferred only limited powers to local communities. Alden Wily, (2002) provides a multicountry analysis of forest decentralisation policies, but their focus was a general review of policies without considering them in relation to theories of devolution or the international aspirations upon which policies for decentralised forest governance are based.

We build on this previous literature by analysing forest decentralisation policies across several countries, considering not just legislation, but also policies and guidelines, comparing them to Agrawal and Ribot's (1999) decentralisation framework and the aspirations of the Rio Declaration on Environment and Development (shortened here to Rio Declaration). We recognise that documentary review of policies is not sufficient to determine likely outcomes. Instead, we aimed to evaluate the extent to which devolution to local communities is specified in Tanzanian, Kenyan, Ugandan, Malawian and Ethiopian forest policies, following the decentralisation framework developed by Agrawal and Ribot (1999). We argue that if policies themselves are not designed to achieve devolution, it is unlikely that it will happen. Not all policies were explicitly attempting to achieve devolution though all clearly aimed to increase local control and power in forest management. Whatever the intention of specific policies in each country, it is useful to measure how far these policies have gone towards achieving devolution. Our objective is therefore to determine whether policies contained the necessary provisions to achieve devolution and not to consider whether the policies are a success on their own terms.

A number of theories have been used to understand decentralised management of resources, for example participation and common pool resource theories by Arnstein (1969) and Ostrom,

(1990) respectively. Drawing on previous work, Agrawal and Ribot's (1999) framework was developed specifically to analyse policies that aimed to decentralise forest management, envisaging a form of governance where management responsibility is vested in an executive

body at the community level that is kept to account through procedures of information sharing and election. We adopt this framework because of its widespread use in other recent forest governance studies, particularly notable in its guidelines for democratically elected and downwardly accountable local actors, and equitable benefit sharing (see e.g. Das, 2019; Chinangwa *et al.*, 2016; Chomba *et al.* 2015; Mutune and Lund 2016). Therefore, the Agrawal and Ribot framework is well suited to our objectives and the situation observed by recent literature in Eastern African countries (e.g. Chinangwa *et al.*, 2016; Chomba *et al.*, 2015, Mutune and Lund 2016). Without understanding the powers of different actors in forest resource management, the domains in which they exercise their powers, and to whom and how they are accountable, it is impossible to analyse how far policies for forest decentralisation have gone towards achieving devolution (Agrawal and Ribot 1999). The analysis also considers whether the policies meet the aspirations of the Rio Declaration, which has been widely adopted, including by all the five study countries, as a way to achieve sustainable forest management. Therefore, the international framework might be expected to have had an influence on the format and development of the different country's policies for decentralised forest governance, and it is useful to assess the degree to which they are aligned.

The countries chosen are all in the UN "eastern Africa" statistical region, and all adopted decentralised forest policies. We aimed to review countries with different histories of forest decentralisation. The chosen countries provide some variation with regard to decentralisation of forest governance and this gives a useful cross section of approaches to evaluate. In particular, the models of forest decentralisation implementation in Tanzania and Malawi differ from those in Kenya, Uganda and Ethiopia, as they are based on village jurisdiction as opposed to the membership of an association or cooperative (FDRE, 2007.s.4.4.p.11, s.3.p.7; GoK, 2005, p.3; GoM, 1997. s .25. p. 15; GoU, 2003. p.34; URT, 2002. s.33. p.52). In addition, differences in the history of the countries have led to variation in some of the factors that are important to forest decentralisation, e.g. political and administrative structures and land tenure systems (Mustalahti and Lund 2009). Kenya, Uganda and Malawi were colonised by the British for around six decades. In Tanzania, British rule followed German, while Ethiopia was only briefly occupied by Italy. All study countries, except Tanzania, were among the first countries in Africa to adopt structural adjustment reforms in the 1980s that led to wider

changes in policies of different sectors including forestry, and then later in the 1990s the countries adopted policies for decentralised forest governance (Kiiza *et al.*, 2007; Kowero, *et al.*, 2003). This article contains five sections: following this section, the second section outlines the theoretical approach and methods; the third section presents results, the fourth section presents discussion; and the last section provides conclusion and recommendations.

2.2 Conceptual framework and methods

2.2.1 Types of decentralisation

There are four types of decentralisation recognized in the literature (Devolution, Deconcentration, Delegation and Privatization) (Ribot, 2004). Devolution is the process of transferring decision-making powers, tasks and resources from high-level authorities (the Central Government) to lower level authorities (Ribot, 2004). Deconcentration is the process of transferring some of the selective administrative functions from the high-level authorities to lower level authorities, or sub-national units within central government ministries and agencies. In this case, the high level authorities are not giving up any authority (Ribot, 2002; Manor and World Bank 1999). Delegation is the transfer of some responsibilities and decision-making power from high-level authorities to organizations that are not in the normal bureaucratic structures and only indirectly controlled by the high authorities (Oyono, 2007). Privatization is another form of decentralisation in which the government transfers its responsibilities and services onto private enterprises or Non-Governmental Organizations (Ribot, 2002). All these are types of decentralisation but devolution is a more complete form of decentralisation when compared to deconcentration and delegation (Agrawal and Ribot, 1999). Privatisation does not necessarily differ from devolution in extent, but rather in to whom powers are given, and how they are accountable. The analysis in this article primarily focusses on devolution but also notes when the policies may have characteristics of deconcentration or delegation. It may be in practice that policies may have features of more than one type of decentralisation. Privatisation was excluded from the analysis as it was not considered in Agrawal and Ribot's decentralisation framework, however, we consider in the discussion whether some policies exhibit elements of privatisation.

2.2.2 Forms of forest policy

Governments define and elaborate forest decentralisation policies through various means including Acts/Proclamations, Ordinances, Policies, Guidelines and Management plans. They can be usefully classified based on the type of policy, who creates and approves the policy, their purpose and legal effect (Table 2.2).

Table 2.2: Forms of forest policy in the study countries

	National legislation	Local legislation	National policy		Local policy
Term use in each country	Act in Tanzania, Kenya, Uganda, Malawi, Zambia and Zimbabwe and Proclamation in Ethiopia	Ordinance	Policy	Guideline [†]	Management plan
Who creates	Executive (govt, usually a specific ministry) but is then approved / amended by parliament	Municipal government	Ministry	Ministry	Village assembly/Local community at village level [†]
Purpose	Provide directive or legal framework to implement the objectives and goals stated in Forest policy	Provide directive or legal framework to implement the objectives and goals stated in Forest policy	Guide decisions and achieve rational outcomes	Set out the requirements and procedures for achieving goals and objectives stated in forest policy documents	Sets out the management approach and goals together with a framework for achieve policy objectives
Legal effect	Legally enforced	Legally enforced	May not be legally binding	May not be legally binding	May be legally enforced

[†] “Guideline” means PFM guidelines in Kenya and Ethiopia. A Field and Lessons Manual for PFM in Malawi.

Guidelines for the Registration, Declaration and Management of Community Forests and Guidelines for Implementing Collaborative Forest Management in Uganda. Community Based Forest Management Guidelines and Joint Forest Management Guidelines in Tanzania.

[†] Management plans are also influenced by national policies, and often by local forest officers.

2.2.3 Analytical approach

In this paper, (see Figure 2.1 and Table 2.3, these are briefly explained below). We also compare the policies in question to the commitments of the Rio Declaration, which also provided principles for the involvement of local community in forest management (see Table 2.3). Several different decentralisation programmes may be present in each country (see Table 2.2), and were analysed separately. Attention was paid to policy wording, since major policy differences can result from subtle differences in wording as to whether rules are voluntary (discretionary) or mandatory (non-discretionary) (Cashore, 1997; McDermott *et al.* 2009). Data for the study were drawn from Forest Acts, Policies, and forest decentralisation guidelines in each of the study country.

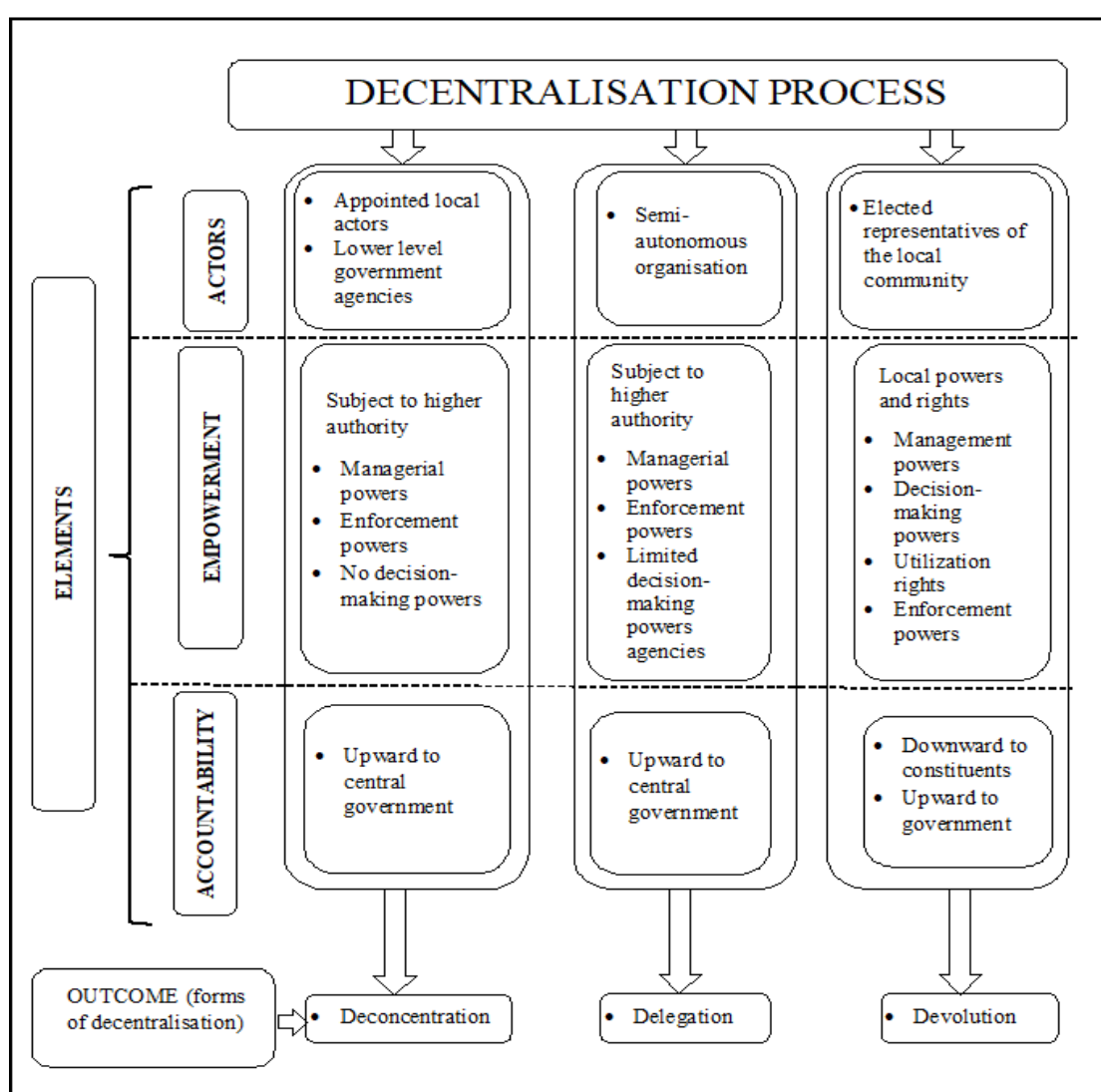


Figure 2.1: Decentralisation framework adopted from Agrawal and Ribot (1999)

Actors

The underlying contention of the decentralisation framework is that under deconcentration and delegation, power would be transferred to appointed local actors or low-level government agencies and semi-autonomous organization(s) respectively (Agrawal and Ribot 1999). Whilst for full devolution, local actors should be elected by, and representative of, all groups within the community (Agrawal and Ribot 1999). Although the Rio Declaration is silent on whether members in local committee need to be elected, it does require local committee to be representative of all groups within the community.

Empowerment

In this framework, empowerment refers to (1) capacity to manage resources; (2) authority to make decisions and rules, and then approve and implement these rules; (3) the degree to which communities adjacent to forests can decide about the use and access of forest resources. In deconcentration, delegation and devolution, members of the forest committee should be empowered with skills on forest governance, including accounting and record keeping (Agrawal and Ribot 1999). However, for decentralised forest governance to achieve full devolution, it is also necessary to empower ordinary community members with management capacity and for them to have access to information relevant to forest management so as to enhance their participation and representation in forest decision-making (Agrawal and Ribot 1999; Chinangwa *et al.*, 2016; UN, 1992, p. 270). In addition, the Rio Declaration requires policies to develop forest resource dispute-resolution arrangements for achieving sustainable forest management (UN, 1992, p. 279).

For decentralised forest governance to achieve deconcentration, delegation and devolution, local communities should be empowered with enforcement powers that can be further divided into: power to create rules, approve or modify old ones, power to implement the rules and to ensure compliance with the rules (Agrawal and Ribot 1999; UN, 1992, p. 104). The Rio Declaration elaborates further and specifies that policies should provide for the active participation of local communities in formulation of national policies, laws and programmes relating to resource management and other development processes that may affect them and for their initiation of proposals for such policies and programmes (UN, 1992, p. 104).

For decentralised forest governance to achieve deconcentration, there are no requirements for empowerment of actors with decision-making. In delegation, local institutions should be empowered with limited decision-making. Furthermore, the Rio Declaration is in line with Agrawal and Ribot (1999), by stating that local communities need to be actively involved in all decision-making processes with special consideration of marginalised groups e.g. women and poorest individuals so as to achieve devolution and sustainable forest management (Agrawal and Ribot, 1999; UN, 1992, p. 270).

For decentralised forest governance to achieve deconcentration or delegation there is no specified need to empower committees and ordinary community members with utilization rights. In order to achieve devolution, policies need to specify clear mechanisms for sharing benefits that will allow equality in accessing benefits between all major groups (Agrawal and Ribot 1999; Cronkleton *et al.* 2012; UN, 1992, p. 270). “Transferring power without accountable representation is dangerous and establishing accountable representation without powers is empty” (Ribot 2002, p.1).

Accountability

Accountability is a critical element that allows one to be both accounted to, and be held accountable by, others (Oyono, 2004a). Appointed local actors or low-level government agencies and semi-autonomous organizations, in deconcentration and delegation respectively, should be upwardly accountable to central government (Agrawal and Ribot 1999). In devolution, powers and rights should be devolved to elected members of local committee who will be downwardly accountable to the local communities and upwardly to government (Agrawal and Ribot 1999). Downward accountability is very important in devolution since it empowers other individuals in the community (Agrawal and Ribot 1999). In addition, upward accountability facilitates protection and management of public goods, such as watershed protection (Oyono, 2004a). In connection to that, there should be continued involvement of state actors to facilitate the implementation of the decentralised forest governance on the ground. These actors should also be both upwardly accountable to central government as well as downwardly accountable to the local communities (Oyono, 2004a). The Rio Declaration is silent on accountability to constituents or government. However, it is in line with Agrawal and Ribot’s framework in suggesting participation of non-

governmental organizations; international and regional organizations as a fundamental prerequisite for achieving devolution and sustainable forest management (Agrawal and Ribot 1999.p.5 and UN, 1992. p. 104).

In order to understand the nature of accountability, it is necessary to make a detailed assessment of how and to whom actors are accountable (Agrawal and Ribot 1999). The most commonly cited mechanisms used to enforce accountability are electoral processes; third party monitoring; auditing and evaluations; public reporting and existence of sanctions that are enforced (Ackerman, 2004).

2.3 Results

2.3.1 Actors

The local institutions specified in Tanzania's Village Land Forest Reserves and Malawi's Community Forest policies have the potential to achieve full devolution, as the decentralisation policies require members of the Village Natural Resource Committees to be duly elected by their constituents and representative of all groups in the community (see Table 2.3 and appendix 15). However, Tanzanian Community Forest Reserves policies only require local institutions to be a group of persons desirous of managing a forest reserve: this could achieve delegation. Likewise, in Kenya, Uganda and Ethiopia, decentralised forest policies have the potential to achieve delegation rather than deconcentration or full devolution, since the policies allow committee members to be elected by, and representative of, only a small group of people in the community.

2.3.2 Empowerment

Management capacity

Policies for decentralised forest governance in all of the study countries are deficient in empowering local institutions with full management capacity, though to different degrees (see Table 2.3 and appendix 15). All policies except those in Tanzania and Malawi explicitly address the need to empower elected members of forest committees with strategies to prevent and manage forest use conflicts. There is a remarkable similarity across all the study countries in the absence of clear national commitment to ensuring local community awareness (both committee members and ordinary members) of their rights over forest management, access and use.

Decision making powers

Only Tanzanian Village Land Forest Reserves allow for full devolution. All other policies empower local actors with only limited decision-making over management and utilization of the forest resources (see Table 2.3 and appendix 15). In Tanzania (JFM), Malawi, Kenya, Uganda and Ethiopia, forests are managed under a joint agreement between local actors and government. Likewise, policies for decentralised forest governance in all the study countries (except in Tanzanian Village Land Forest Reserves) require forest staff to be involved in the

implementation of the approach e.g. participation in decision making with regard to management and utilization of forest resources. This may limit the amount of power and level of influence that local actors may exercise upon approach implementation.

Table 2.3: Comparing policies for decentralised forest governance against decentralization framework and the Rio Declaration

Critical element in decentralization framework developed Agrawal and Ribot 1999	Tanzania VLFR	Tanzania JFM	Tanzania CFR	Kenya	Uganda CFM	Uganda CF	Malawi Co-management	Malawi CF	Ethiopia
Actors									
Forests are managed by elected local institutions (Dv)	(S1) √	(S1) √	(S1) X	(S3) √	(S4) √	(S4) √	(S2) √	(S2) √	(S5) √
Members of local institutions are representative of all groups in the community- (Dv+ Rio Declaration)	(S1) √	(S1) √	(S1) X	(S3) X	(S4) X	(S4) X	(S2) √	(S2) √	(S5) X
Forests are managed by appointed members of forest committee or lower government agencies- (Dc)	X	X	X	X	X	X	X	X	X
Forests are managed by semi-autonomous organization-(DI)	(S1) X	(S1) X	(S1) X	(S3) √	(S4) √	(S4) √	(S2) X	(S2) X	(S5) √
Empowerment									

Elected members of local institutions in Dv/ appointed members of local institution in Dc/ semi-autonomous organization in DI and ordinary members empowered with skills of forest governance -(Dv + Dc + DI+ Rio Declaration)	(S6) X	(S6) X	(S6) X	(S8) X	(S9) X	(S9) X	(S7) X	(S7) X	(S10) X
Appointed members of local institutions in Dc/ semi-autonomous organization in DI/ elected members of local institutions in Dv and ordinary members empowered to formulate their own forest by-laws (Dv + Dc+ DI + Rio Declaration)	(S21) v	(S21) v	(S21) X	(S23) X	(S24) v	(S24) v	(S22) v	(S22) v	(S25) v
Appointed members of local institutions in Dc/ elected members of local institutions in Dv and ordinary members	(S21) X	(S21) X	(S21) X	(S23) X	(S24) X	(S24) X	(S22) X	(S22) X	(S25) X

empowered to finally approve rules -(Dv + Dc + DI)									
Appointed members of local institutions in Dc / semi-autonomous organization in DI/ and elected members of local institutions in Dv empowered to exclude outsiders (taking offenders to court)- (Dv + Dc + DI)	(S21) √	(S21) √	(S21) X	(S23) X	(S24) X	(S24) X	(S22) X	(S22) X	(S25) X
All local communities are empowered with full and equal rights in accessing PFM benefits -(Dv+ Rio Declaration)	(S16) √	(S16) X	(S16) √	(S18) X	(S19) X	(S19) √	(S17) X	(S17) √	(S20) X
All local communities empowered to participate in decision making over management and utilization of the resources- (Dv+ Rio Declaration)	(S11) √	(S11) X	(S11) X	(S13) X	(S14) X	(S14) X	(S12) X	(S12) X	(S14) X

Active involved of all local communities in decision making with special consideration of marginalised groups e.g. women and poorest individuals- (Dv + Rio Declaration)	X	X	X	X	X	X	X	X	X
No decision making powers to local institutions and local communities -(Dc)	X	X	X	X	X	X	X	X	X
Limited decision making powers agencies -(DI)	(S11) X	(S11) v	(S11) v	(S13) v	(S14) v	(S14) v	(S12) v	(S12) v	(S15) v
Full utilization rights to local institutions and local communities	(S16) v	(S16) X	(S16) v	(S18) X	(S19) X	(S19) v	(S17) X	(S17) v	(S20) X
No utilization rights to local institutions and local communities - (Dc + DI)	X	X	X	X	X	X	X	X	X
Accountability									

Members of local institutions are elected by all members of the community- (Dv)	(S26) √	(S26) √	(S26) X	(S28) X	(S29) X	(S29) X	(S27) √	(S27) √	(S30) X
Members of local institutions are appointed by government officials- (Dc)	X	X	X	X	X	X	X	X	X
Members of local institutions are downward accountable to all members of the community -(Dv)	(S26) √	(S26) √	(S26) X	(S28) X	(S29) X	(S29) X	(S27) √	(S27) √	(S30) X
Members of local institution are upward accountable to government - (Dv + Dc+ DI)	(S26) √	(S26) √	(S26) X	(S28) √	(S29) X	(S29) √	(S27) √	(S27) √	(S30) X
All local residents have the right to be involved in PFM activities- (Dv + Rio Declaration)	(S26) √	(S26) √	(S26) X	(S28) X	(S29) X	(S29) X	(S27) √	(S27) √	(S30) X
Terms or schedules of election for members of local	(S26) X	(S26) X	(S26) X	(S28) X	(S29) X	(S29) X	(S27) √	(S27) √	(S30) X

institution are clearly specified -(Dv)									
Define clear procedures for handling forest finances, public and audit sessions -(Dc + DI+ Dv Rio Declaration)	X	X	X	X	X	X	X	X	X
Participation of NGOs- (Dc + Dv+ Rio Declaration)	(S26) √	(S26) √	(S26) √	(S28) √	(S29) √	(S29) √	(S27) X	(S27) X	(S30) √

√ and shading=Presence of critical element, **X**=Silence /Absence of critical element, Dc=Deconcentration; DI=Delegation; Dv=Devolution; VLFR= Village Land Forest Reserves; JFM= Joint Forest Management; CFR= Community Forest Reserves; CFM= Collaborative Forest Management; CF= Community Forest; S=Supplementary materials paragraph

Utilization rights

Utilization rights concern the legal entitlement of all members in the community to have equitable access to, and use of, the forest resource, income generating activities initiated by the decentralisation initiative, financial benefits accrued from selling harvested forest products, permit and penalty fees. Policies for decentralised forest governance in the study countries all go some way towards achieving this but there are differences on how actors will be empowered with utilization rights (see Table 2.3 and appendix 15). Only Tanzanian VLFR and Ugandan Community Forest are aligned with full devolution, since the policies empower local communities to use 100% of the benefits obtained from the programme. There is some ambiguity in Malawi about whether the local community are able to retain 100% of the benefits in Community Forest, because policies for decentralised forest governance require forest staff to be involved in the implementation of the approach. Under policies for decentralised forest governance in Kenya, Ethiopia and all other countries in forests that are managed under joint agreement between communities and government, the utilization rights are limited to those outlined in the Joint Management Agreement. In addition, there is an absence of a clear mechanism for sharing forest benefits from Joint Forest Management policies in Tanzania, Kenya, Uganda and Ethiopia.

Enforcement powers

Policies in all the study countries are deficient in empowering forest committees with enforcement powers (e.g. power to create rules, give or withhold final approval, or modify old ones, power to implement the rules, and power to take offenders of illegal activities to court), hence may not allow for full devolution (see Table 2.3 and appendix 15). Only VLFR in Tanzania empowered Village Natural Resource Committees to take offenders of large-scale illegal activities to court. Elsewhere, all cases of serious encroachment need to be reported to Forestry Departments for assistance, this limits devolution and is likely to frustrate local communities. Only VLFR and JFM in Tanzania state clear strategies for exclusion of outsiders. Here policies for decentralised forest governance require Village Natural Resource Committees to provide a list of the rules and punishments to Village Councils of neighbouring villages to inform their own people.

There is a remarkable similarity in the absence of clear national commitment in policies for decentralised forest governance to empower local actors to have the final say on approving forest by-laws. Forest by-laws are required to be finally approved by the local authority or the Director of Forests, giving them a veto.

2.3.3 Accountability

Tanzania's Village Land Forest Reserves and Joint Forest Management (except on Community Forest Reserves) and Malawi's Community Forest and Co-management policies may achieve full devolution, because the policies require members of Village Natural Resource Committees, or Block Committees to be duly elected by their constituents to enhance downward accountability. However, the decentralisation policies in Kenya and Uganda have the potential to achieve only delegation, or privatization, in this respect since Forest Community Association Committees, Community Forest Management Committees and Communal Land Association Management Committees are downwardly accountable only to a small group of people in the community and upwardly accountable to the central government. Calling the approach community or participatory, does not mean that the approach involves all residents, since, in Kenya and Uganda a small group of people who are members of Forest Community Associations, Forest User Groups or Communal Land Associations elect members in the forest committee (see Table 2.3 and appendix 15). In Ethiopia, policies for decentralised forest governance failed to define to whom Forest Executive Committees are accountable and how committee members assume positions.

There is similarity in the absence of clear commitment in the policies for decentralised forest governance in all the study countries on how accountability could be enhanced. There is an absence of commitment to clear and transparent benefit-sharing mechanisms to ensure equity in case of forests that are jointly managed by government and local communities. There is an absence of clearly defined schedules of committee elections in all the study countries. In addition, procedures for handling forest finance and public audit sessions are fundamental prerequisites for achieving accountability yet are lacking in policies for decentralised forest governance. Policies for decentralised forest governance in all the study countries except in Malawi specifically allow for active participation of external partners (e.g. NGOs) in decentralisation.

2.4 Discussion

The introduction of decentralised forest policies in Tanzania, Malawi, Kenya, Uganda and Ethiopia signifies a major shift away from centralized, state-led management. In these countries, policies for decentralised forest governance allow establishment of new committees that manage the forest. However, the policies in Kenya, Uganda and Ethiopia allow a non-representative group to establish institutions to manage forests, which may lead to elite dominance of decision-making and capture of benefits, resulting in the exclusion of poorer individuals and marginalised groups (Birch *et al.* 2014 and Gurung, *et al.* 2011). In such situations, forest decentralisation may end up benefiting outsider groups (Bijaya *et al.* 2016). In effect, the outcome of the policy may be a form of privatisation, enclosing previously *de facto* common land, and even reducing the power of local residents, relative to when forests were nominally controlled by central government (Ribot, 2004). Decentralised forest policies in Tanzania and Malawi require members of the committees to be elected by all members of the community, to enhance representation and reduce the risk of domination by particular social economic strata. Even here, it may be difficult to define who the community is that must be represented, and that deserves to have a say in the management of the forest. If forest resources are of particular importance to certain sectors of the community (e.g. landless households, or pastoralists) should they have greater influence over its management? Moreover, democratic elections are not sufficient to guarantee elimination of elite capture in the approach. Local elites are rich and have social capital that help them to be elected by constituents. Lund and Saito-Jensen, (2013) showed that elite capture of institutions is dynamic, and that other sectors of the community may learn to navigate the new institutions and achieve greater influence over time. However, this process is likely to be dependent on residents having basic rights to hold forest committees accountable, which are lacking in many of the policies we reviewed. It also remains to be seen whether this adaptation leads to a genuine reduction in elite capture, or simply a redistribution of power between different elites.

We found that forest decentralisation policies in Kenya, Uganda, Ethiopia and Malawi and in Joint Forest Management in Tanzania, allow forest staff to take part in management activities of decentralised forests, potentially limiting the decision making power of local communities. Since the government in these forests retains ownership, forest staff's involvement might be

expected to safeguard the ownership rights and only take a role in decisions that may affect sustainability of the forest reserve, however, it may not be restricted to this (Chinangwa *et al.* 2016 and Kamoto 2007). When policies for decentralised forest governance transfer more powers to forest committees, there is a need also to have measures in the policies to ensure sharing of key management functions and decision making with all committee members and ultimately the community as a whole. Observations in Mali indicated that the role of local communities in decision-making remains unclear in the decentralisation policies, raising questions about how the government and local communities will work together and who will participate in decision-making regarding decentralisation (Becker, 2001 and Benjaminsen, 1997). Bodies of theory upon which decentralisation policies are based highlight that participation without redistribution of decision-making powers is an empty and frustrating process for the powerless (Arnstein, 1969 and Ostrom, 1990). In addition, we noted that all policies except in Malawi explicitly identify the need to empower local actors with skills in conflict management, which they may or may not have. These are important, because when conflicts in forest management are ignored or allowed to escalate, it can lead to further deforestation and degradation (Rahman, 2003; Warner and Jones, 1998; Warner, 2000). Banana *et al.* (2005) found poor implementation of decentralised forest governance because local actors had not been empowered to resolve forest related conflicts, and if any conflicts occurred during implementation of the approach, elected members in forest committees had to request assistance from either District Forest Offices or Sub-county level forest guards.

We found that in all the study countries, the enforcement powers transferred to local communities were unbalanced, in that the decentralised forest policies transferred powers to execute forest by-laws without the requisite power to make, alter, and finally approve them or to take offenders to local courts. Directors or local authorities retained the powers to make forest by-laws with regard to forest management, utilization and revenue sharing. This can delay the process of implementing forest decentralisation, particularly in forest areas with valuable natural capital when Directors or local authority envisage losing forest revenue generation opportunities (Nathan *et al.* 2007; Mustalahti and Lund, 2009). In addition, when policies require the Director of forest to comment on and approve the final forest-by-laws this can cause elected committees to copy what the Director has prescribed to quickly get approval of the forest by-laws; similar concerns have been observed by Chinangwa *et al.*

(2016). This is why Agrawal and Ribot, (1999) and Buchy and Hoverman (2000) advised that Directors of forest departments and District councils should assume an advisory and supervisory role in decentralisation, because their active involvement in the approach limits local empowerment. Our findings are in line with Mutune and Lund, (2016) and Chomba et al., (2015) who highlighted that in Kenya, central government retained the power to make forest rules, reducing decision-making powers and sense of ownership of members of Community Forest Associations.

We found that policies for decentralised forest governance in all the study countries lack clearly defined terms or schedules for the next election, this may compromise downward accountability of the committee members. Although elections of committee members of forest management does not seem to guarantee accountability (Chomba et al., 2015; Saito-Jensen et al., 2010), frequent elections with clear timeframes and involving all residents entitled to vote does seem a fruitful path for enhancing accountability of committee leaders to their constituencies. Mandatory record keeping, public auditing and procedures to oust leaders who abuse their public mandates would help to establish transparency and accountability of committee leaders during implementation of the policies. Lack of clearly defined mechanisms in the policies for imposing checks and balances within the programme may increase the opportunities for actors to undertake corruption and patronage when implementing the programme (Barbier et al. 2004 and White, 2000). Corruption can be worse in devolved systems than centralized systems (Adam and Eltayeb, 2016 and Tacconi, 2007).

We found that policies for forest decentralization in Malawi lack a commitment to allow participation of NGOs, especially at community level. This could enhance elite dominance and limit government accountability in terms of devolving appropriate rights and powers to local communities. NGOs who are not connected with the government may be in a good position to assist and empower local communities in demanding rights and powers to forest resources. However, this depends on their true level of independence. In term of reducing elite dominance, NGOs can assist local communities in counterbalancing the interests of powerful groups in the community with interests in decentralised forest governance that can arise during implementation of the approach (Mustalahti and Lund 2009). NGOs can create an effective alliance among non-elites and other actors as well as a space for disadvantaged

groups to sufficient exercise their power in decision making (Lund and Saito-Jensen, 2013; Saito-Jensen et al., 2010; Classen et al., 2008).

2.5 Conclusion and recommendations

We sought to understand the extent to which decentralisation forest policies in the study countries are compatible with achieving devolution. In all five countries, policies for decentralised forest governance fail to provide for some critical elements such as democratically elected, downwardly accountable local actors and equitable benefit sharing that are required to achieve meaningful devolution. Decentralisation policies in Tanzania and Malawi may have the greatest potential to achieve devolution, as they require committee members to be elected by all residents in the area and be representative of all groups in the community, contributing to downward accountability as well as helping to prevent elite capture (Agrawal and Ribot 1999; Olowu, 2003). In all cases, however, accountability could be better achieved by more clearly defining: procedures for handling forest finance, public audit sessions and central government oversight of local government. Whilst this is not an exhaustive list of the ways to achieve accountability, these are important first steps to ensure necessary parameters are in place. Decentralisation policies in Uganda, Kenya and Ethiopia are less aligned with devolution because the policies allow members of the forest committee to be representative of, and elected by, only a group of people in the community who wish to manage the forest reserve, potentially excluding marginalised groups. This may lead to elite capture, and effective privatisation of management, enclosing previously *de facto* common pool resources. In all the study countries, the state has transferred to local communities responsibility for enforcing forest by- laws but not powers to give or withhold final approval, hence compromising their decision-making powers and achievement of local empowerment. If donors and governments want to devolve real power to local communities, they need to reform PFM policies to ensure that members of forest committees are locally elected and representative of all residents, as well as empower local communities with full enforcement powers.

We acknowledge that examining policies is only part of the story, and implementation may further exacerbate, or compensate for, some of the shortcomings found. However, this study shows that the policy frameworks for forest decentralisation in Eastern Africa, are not at present sufficient to ensure devolution.

Chapter 3. DOES TANZANIAN PARTICIPATORY FOREST MANAGEMENT POLICY ACHIEVE ITS GOVERNANCE OBJECTIVES?

Abstract

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. Building on existing analyses that highlight the limited successes of PFM, this study focuses on the equitability and efficacy of PFM governance in Tanzania. Previous work notes several shortcomings of PFM, often stressing the issue of elite capture - our paper explores this issue in further detail by applying a mixed methods approach. Specifically, by using individual rather than household level surveys we can better assess the extent of marginalisation and whether wealth and gender are determining factors. We assess whether PFM has achieved devolution by comparing observed outcomes to stated policy objectives and the decentralization framework developed by Agrawal and Ribot (1999). We surveyed 227 individuals, in two case study villages adjacent to SULEDO Village Land Forest Reserve (Kiteto District), conducted six focus group discussions and 10 key informant interviews to answer these research questions: (a) To what extent are management institutions representative and inclusive of the local community? (b) To what extent are local communities empowered to influence decision-making and access benefits? (c) To what extent is the local forest management institution accountable to local communities relative to superior authorities under PFM? In the case study villages, PFM is characterised by a low rate of resident and Village Environmental Committee member engagement in committee elections, formal village assemblies, PFM training, formulation and first-approval of by-laws. Low levels of satisfaction were also found with the mechanisms of benefit sharing and the level of accountability of management institution leaders. We found that SULEDO has become dominated by a very restricted “elite within an elite”, comprising only zonal leaders and close associates. Overall, we found a significant gap between observed outcomes and PFM policy objectives, and therefore a failure to fully achieve meaningful devolution.

Keywords: *Participatory Forest Management policy; governance objectives; devolution*

3.1. Introduction

Before the 1980s centralized forest policies in many countries excluded local communities, while often failing to prevent degradation of forest resources (Haller et al., 2008). In the early 1980s, inclusion of local communities in forest management increased through the adoption of 'Participatory Forest Management' (PFM) in many countries (Tole, 2010). PFM was promoted with the intention of improving livelihoods, forest condition and governance, but studies to date have documented mixed ecological and livelihood impacts (e.g. Persha and Blomley, 2009; Schreckenberg and Luttrell, 2009; Bowler et al., 2012; Lambrick et al., 2014; Lund et al., 2018).

Reviewing a range of international cases, Dressler et al. (2010) found that implementation of PFM excluded marginalised groups from access, use, and control of valued forest resources, suggesting serious shortcomings in social justice terms. Ribot et al. (2010) similarly contend that in a majority of cases across sub-Saharan Africa, local PFM institution members are not representative of the local population. Reporting of inequalities is common across several studies, with local elites seen to dominate both decision-making and benefit-capture (Coulibaly-Lingani et al., 2011; Lund and Saito-Jensen, 2013; Adhikari, 2014; Green and Lund, 2015; Luintel et al., 2017; Etongo et al., 2018; Das, 2019). Jacob and Brockington (2017) further explain this in a Tanzanian context, with reference to the lack of accountability and transparency of the local institutions, enabling favouritism and manipulation to occur by politically powerful and well connected individuals.

Other analyses detail how PFM is characterised by partially elected community representatives (Chinangwa et al., 2016; García-López, 2019), with a lack of capacity (Mohammed et al., 2017), transparency in handling funds, and accountability to their constituents (Mollick et al., 2018; Coleman and Fleischman, 2012). High costs of forest resources (e.g. timber) are also seen to exclude the poorest from benefiting from PFM (Kumar, 2002; Rai et al., 2017). This situation has increased intra-and inter-community conflicts (Gross-Camp et al., 2019). In other instances, PFM policies and central government transferred limited powers to local communities (Chomba et al., 2015; Das, 2019), and devolved power is contested between districts and villages (Sungusia and Lund 2016). Active involvement of foresters in PFM may also reduce the sense of ownership and power that local

communities may exercise (Scheba and Mustalahti, 2015). Overall, the efficacy and equitability of PFM governance frameworks are central to the failings described (e.g. Chomba et al., 2015; Chinangwa et al., 2016; Jacob and Brockington, 2017; Maraseni et al., 2019; Mollick et al., 2018; Das, 2019; García-López, 2019; Kabir et al., 2019).

A key point here is the need to explicitly compare outcomes to stated policy objectives, which whilst evident in some studies (Chomba et al., 2015; Mollick et al., 2018; Das, 2019), is not always the case. This has prompted critique from Lund et al. (2018), who question the level of policy understanding shown in some evaluations. In addition to direct policy comparison (Chomba et al., 2015; Mollick et al., 2018; Das, 2019), best-practice frameworks have been used to guide a number of existing analyses. Here, Agrawal and Ribot's 1999 framework is particularly notable in its guidelines for democratically elected and downwardly accountable local actors, and equitable benefit sharing (see e.g. Chomba et al., 2015; Chinangwa et al., 2016; Mutune and Lund 2016; Das, 2019).

To assess the efficacy of PFM implementation, existing studies draw on a range of data, derived from both qualitative and quantitative assessment to provide both the richness and breadth of insight required. A notable weakness of previous studies that we aim to address here is the focus of surveys at the household level. Both household and individual surveys aim to generalise the findings to a wider population, however household surveys may lead to an unrepresentative sample, particularly in terms of gender as household heads (and thus the respondents addressed) are normally men. In order to assess whether PFM has achieved devolution, we need studies that ensure all the different socio-economic characteristics of a heterogeneous community are considered, which may influence respondents' engagement with, and knowledge and perceptions of PFM. This study aims to achieve this by employing an individual-level survey to residents and VEC members, where respondents (residents) were selected using proportionate stratified random sampling based on gender and wealth status. The aim was to examine whether knowledge and perceptions of PFM differed strongly between residents and to explore whether there was evidence of elite capture in PFM. The survey measured the extent of all devolution components (i.e. representativeness, empowerment and accountability of actors). A quantitative survey also enables us comprehensively determine the extent to which villagers have been involved in the PFM

processes. Qualitative data were also collected from surveys, focus group discussion and key informant interviews to explicitly address the perspectives of potentially marginalised groups. The combination of qualitative and quantitative data is critical here to both capturing and understanding the issues at hand. Qualitative reporting adds more analytical depth, to more fully explain how and why elite capture has occurred, whilst the quantitative gives us a more rigorous means of understanding who that elite are. Our analysis compares observed outcomes to stated policy objectives and the decentralization framework developed by Agrawal and Ribot (1999). The research addressed the following questions; (a) To what extent are management institutions representative and inclusive of the local community? (b) To what extent are local communities empowered to influence decision-making and access benefits? (c) To what extent is the local forest management institution accountable to local communities relative to superior authorities under PFM? Across all the research questions we were also interested to understand how individual characteristics such as gender and wealth affect people's satisfaction and participation empowered by PFM. We conducted our study in Tanzania because it is among the top three countries in Africa that had made most progress in terms of numbers of communities involved and hectares of forest involved in PFM, hence many countries borrowed Tanzania PFM experience (e.g Uganda, Kenya, Ghana, Nigeria, Madagascar, Malawi, Mozambique, Guinea, Namibia) (Alden -Wily, 2001). We purposively selected the case study from a wider stratified random sample of PFM communities in Tanzania because of its history of donor support. It might therefore be expected to represent a "best-case" scenario of PFM in Tanzania, relatively well-resourced compared to many other PFM projects.

3.1.1 Analytical framework

We assess whether PFM in Tanzania has achieved devolution, by comparing observed outcomes to stated policy objectives; and actors, empowerment and accountability elements in the decentralization framework developed by Agrawal and Ribot (1999). The underlying contention of the framework is that the PFM approach should be assessed by looking at which actors are involved, the degree of meaningful powers transferred to local actors, and how those actors are downwardly and upwardly accountable to constituents and government respectively. This is further detailed below.

Representativeness

Meaningful devolution requires that members of the relevant institutions are elected by, and representative of, all community members, with special consideration of marginalised groups, and indeed representativeness and accountability are inextricably linked (Agrawal and Ribot 1999). PFM in Tanzania is intended to achieve this (URT, 1998. PS 3.p.27; URT, 2002, s.33.p.52 and s.38.p.59; URT, 2007, p.5). Mogoi et al. (2012) found that there was at least some level of resident participation in elections, however, they document that PFM principles are not well implemented in practice.

Empowerment

Empowerment refers to (1) capacity to manage resources; (2) authority to make decisions and rules, and then approve and implement these rules; (3) the degree to which communities adjacent to forests can decide about the use and access of forest resources (Agrawal and Ribot 1999). PFM aims to achieve devolution by: promoting awareness of forest rules; enabling access to forest benefits for all members of the community; and fully transferring utilization rights, management, decision-making and enforcement powers to elected local representatives (Agrawal and Ribot 1999; URT, 2002.s.16.p. 17. S.33.p.35; URT, 2007. p.21). Moreover, devolving powers to make decisions and rules without devolving powers to enforce them, limits devolution (Agrawal and Ribot 1999). Several studies have documented that communities and local institutions in PFM lack awareness of forest rules and their enforcements (Chhetri et al., 2012; Senganimalunje et al., 2015). Some studies (e.g. Lund and Treue, 2008), report more positive findings, where local actors feel empowered by enhanced knowledge of forest rules, and consequently dare to challenge their leaders when PFM policy and legislation has been contravened. Other scholars reported that local institutions lack capacity to address power struggles (Mogoi et al., 2012), and conflicts (Senganimalunje et al., 2015) which arise due to a lack of inclusiveness, and elite capture in decision making processes Saito-Jensen et al., 2010 ; Chhetri et al., 2013; Mutune et al., 2017; Liu et al., 2018). PFM has created a new arena for power struggles between different interest groups (Kellert et al., 2000; Mustalahti and Lund 2009; Mogoi et al., 2012), and thus implementation of PFM policy and legislation at a local level can be more dominated by coercion than cooperation (Ribot et al., 2010; Schusser et al., 2015). In addition, many PFM programmes fail to achieve

access to forest benefits for all community members (Kellert et al., 2000 ; Chhetri et al., 2012; Mogoi et al., 2012;Nielsen and Meilby, 2013), and the tightened control of forest resource utilization in PFM is frequently most costly to the poorest and marginalised groups (Ribot, 2004; Chhetri et al., 2012; Kumar et al., 2015) and characterised by marginalization of minorities (Persson and Prowse, 2017; Rai et al., 2017). PFM has also been found to weaken the level of support that the central government could provide to local institutions (Gobeze et al., 2009; Mustalahti and Lund 2009; Persha and Blomley 2009; Mohammed and Inoue 2012; Ameha et al., 2014b; Dyer et al., 2014; Bekele et al., 2015). Specifically, Mustalahti and Lund (2009) argue that benefits-sharing arrangements prior to PFM were more effective in motivating central government to support local communities.

Accountability

PFM is expected to improve forest governance if democratically elected bodies are both downwardly and upwardly accountable (Agrawal and Ribot, 1999; Larson, 2002; Ribot 2004; URT, 2002, s. 33.p.35; URT, 2007.p. 21). This may help to counteract local elite capture (Lund and Saito-Jensen, 2013; Agrawal and Ribot 1999). In order to understand the nature of accountability, it is necessary to make a detailed assessment of how and to whom actors are accountable (Agrawal and Ribot 1999). The most commonly cited mechanisms used to enforce accountability are electoral processes; third party monitoring; auditing and evaluations; public reporting and existence of sanctions that are enforced (Ackerman, 2004). Furthermore, transparency and accountability in handling of revenues and expenditures is also important for accountability (Zulu, 2008). However, most studies demonstrate that PFM is characterised by a lack of downward and upward accountability (e.g. Mustalahti and Lund 2009; Mohammed and Inoue 2012; Persson and Prowse 2017) and distrust of local institutions by local communities (Nielsen and Meilby, 2013).

3.2. Methods

3.2.1 Study area

In Tanzania, PFM was introduced in the early 1990s, following this a number of policies and legislation were reviewed to grant legal rights for villages to own and manage forest resources that are on village land (URT, 1998;URT, 2002). In 2006, it was estimated that 3,672,854 hectares were under some form of PFM (URT, 2006). The area under PFM continued to increase so that in 2012 PFM covered 7,758,788 hectares (URT, 2012).

The study was undertaken in the Kiteto district and the fieldwork was conducted from February - September 2017. Ethnic composition in the district includes Maasai (32%), Gogo (27%), Rangi (18%) and a mixture of smaller groups (23%) e.g. Kamba, Nguu, Bena, Kaguru, Hehe, Sandawi, Burunge, and Wa-Arusha (Lissu and Mitzlaff, 2007). The main land uses include grazing, agriculture, settlements, forest conservation, beekeeping, timber harvesting, charcoal making, firewood and honey gathering while the largest land use category is grazing (LAMP, 2005). Traditionally, the Maasai and Kamba are pastoralists and all the remaining ethnic groups are agriculturalists. However, this division has become less clear-cut due to land scarcity and modern lifestyles, which have restricted movements of the pastoralists (Lissu and von Mitzlaff 2007).

The district has one Village Land Forest Reserve (VLFR) called SULEDO. SULEDO was established in the mid-1990s with great facilitation from LAMP, who also played a significant role in formulating SULEDO rules (Pers Com, ZEC leader). Since its establishment, SULEDO has been supported by donors until 2012³. In 2002 SULEDO VLFR received international recognition and was awarded the inaugural UNDP Equator Prize (UNDP, 2012). Currently the forest is managed by 13 villages under Community Based Forest Management (CBFM), a form of PFM where the forest is owned by democratically elected Village Governments who are the users and managers of forest resources (Alden Wily, 1997). In 2007, the forest was officially gazetted as VLFR (ORGUT, 2010). SULEDO covers 1674.16 km², 10% of the district area. The forest is located at about 126 km South East from Kiteto district headquarters. SULEDO VLFR is rich in miombo woodlands and dominated by *Combretum molle* and

³ Source: Regional and district natural resources officers and Chairperson of Zonal Environmental Committee in the study area.

Dalbergia melanoxylon, *Julbernardia globiflora* and *Brachystegia microphylla* (Malimbwi, 2000). SULEDO was purposively selected for this study from the class of PFM most common in Tanzania: miombo woodlands, managed for conservation and production, restricted to those that had received donor support. We selected SULEDO because it is a flagship case, having received donor support for a long time. The rationale for selecting a site that had received support is that it would be expected to represent a “best-case scenario” for PFM in Tanzania, and therefore a useful test of how far PFM has succeeded in achieving devolution and policy objectives under the most promising circumstances.

3.2.2 Sampling design

Two villages and four sub villages were selected using stratified random sampling (see Appendices 16, 17 and 18). Lists of all adults (aged 18 or over) in each sub village were obtained from key informants, and stratified according to gender and then wealth status using wealth indicators developed with input from key informants, including size of land owned, number of livestock owned, income sources, roof and wall materials for house owned (see Appendices 24 and 25), which are also commonly used in the literature (Vyamana, 2009; Hargreaves et al., 2007). Residents⁴ (n=180) were selected using stratified random sampling in each sub-village in order to ensure that the sample in each stratum was in proportion to the stratum in the population (Table 3.1). All 47 Village Environmental Committee (VEC) members were purposively selected. A total of 227 respondents (residents and VEC members) undertook our questionnaire survey. In cases where selected residents were absent or unwilling to participate in the study, the next resident on the list was selected for an interview. A total of 6 selected respondents were unavailable and 1 declined to undertake the survey. VEC members are residents in a leadership position, and their responsibility is to coordinate PFM activities at local level. VEC members may be expected to have greater knowledge of PFM than residents. Residents consisted of individuals in the community without any leadership position in PFM.

⁴ Residents comprise adult individuals who are resident in an area, and excludes those with positions on the Village Environmental Committee who were selected separately.

Table 3.1: Number of respondents interviewed in each study village

Village name	Adult population			Residents interviewed			Committee members interviewed		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Sunya	2607	1370	1237	146	68	78	33	21	12
Engang'ungare	616	275	341	34	14	20	14	10	4
Total	3223 (100%)	1645 (51%)	1578 (49%)	180 (100%)	82 (46%)	98 (54%)	47	31 (66%)	16 (34%)

3.2.3 Quantitative methods

Quantitative data were collected using a questionnaire survey with open and closed questions to investigate knowledge of the programme, participation in PFM activities, and perceptions of the legitimacy, trust and accountability of the committee (see Appendices 19, 20, 21). The questionnaires for the study were first developed in English and then translated into Swahili and Maasai. Quantitative data were analysed using R version 3.4.4 (R Core Team, 2018), Chi-square tests were employed to test for differences in perceptions and opinion between residents and VEC members, since VEC members may be expected to be more aware and engaged with PFM than residents. A logistic regression model

was used to analyse the relationship between individuals' characteristics and their participation in PFM activities. The ordinal regression model was performed to gain insight into how individual characteristics were associated with the level of satisfaction with the mechanism of sharing benefits in PFM. The best supported models were selected using the Akaike Information Criterion (AICc).

3.2.4 Qualitative methods

Qualitative methods were also employed acknowledging that survey data cannot capture all the complexities of social relations in the area. Key informant interviews were undertaken with 10 key informants at community level. This included village leaders, VEC leaders, the Zonal Environmental Committee (ZEC) chairperson, and village government chairpersons, who were in position during establishment of the SULEDO VLFR. Key informant interviews aimed to gain a richer perspective and triangulate information derived from the questionnaire survey (see Appendix 22). Focus group discussions were used as a way of gaining collective sense on how PFM is implemented and gain accounts that are more naturalistic than those collected in questionnaire surveys (Mitchell and Branigan, 2000). Focus group discussions were undertaken with marginalised groups (women and the poorest) and members of VEC separately in each of the study villages after the questionnaire survey (6 focus group discussions with 3-8 individuals per focus group). Focus group discussions involved relatively unstructured questions, but the discussion was guided to focus on issues raised by the questionnaire survey and key informant interviews (see Appendix 23). Focus group discussions need to consider the interactive contextual nature of the data and also the roles

played by group dynamics in the production of data intended so as to get robust information (Farnsworth and Boon 2010). In this study, focus groups were organised around a particular viewpoint e.g. social identities in relation to PFM, which helped to reduce the likelihood of conflicts among participants. However, the diversity in a group was good enough to ensure an interesting discussion and avoided participants just saying “yes” and “I agree” during discussion. In each focus group discussion, at least half an hour more than the maximum time expected to finish the discussion was allowed because in some cases the discussion started later than the anticipated time and sometimes it went over time expected to finish. An extra time arranged at the end of group discussions also allowed discussing important points with participants related to study topic.

The focus group discussion guide was carefully designed with questions that were clear, succinct, and precise and stimulated participants to respond, agree and disagree with each other during discussion. Vaughn et al. (1996) suggested that focus group discussion guides should be considered as a map to chart the course under discussion. Selection of location considered both the needs of the moderator and participants, thus in each of the study villages focus group discussions were conducted in locations that were safe, quiet and easy to access by all participants. Over-recruiting of participants was also considered for emergency purposes in case some participants did not show up or get ill at the last minute. It was logistically difficult to recruit and organise participants but to reduce this participants were provided with a list of potential times and allowed to indicate their availability. Moreover, participants were provided with refreshments during focus group discussions. Krueger and Casey, (2009) suggest that, providing participants with refreshment during focus group discussion facilitates communication between participants and the moderator and also puts participants at ease. Before starting a group discussion, an assistant provided participants with a participant’s information sheet. The assistant also assisted in managing the digital audio recorder, taking notes and later identification of speakers. Before the start of any focus group discussions participants were asked their consent, followed by their demographic information. The rules for the group discussions were then explained. Participants were also asked to introduce themselves at the start of the discussion by stating their names and their position in village. This helped me to gain familiarity with different participant speakers’ voices. My main task as a moderator was to facilitate the group in terms of getting participants to talk and to gently steer the conversation to enable us to cover the

sorts of issues intended. Bloor et al., (2001) recommend that the job of the moderator in focus group discussions is facilitation and not control. Focus group discussions focused on identifying shared understandings and common views on specific issues discussed. Moreover, the analysis considered and paid attention to any opposing views, experience, modification of views and what factors led to these changes, or opposing views during focus group discussion. At the end of focus group discussion, participants were given an opportunity to add anything that was not asked. Detailed notes about the group were made soon after the discussion to get insights of the ideas generated when participants were speaking. Interesting interactions during the discussions were noted for further follow- up.

Some qualitative data was also obtained from the individual surveys through open ended response questions, which allowed respondents to provide fuller explanations if they wished. All interviews and focus group discussions were audio recorded and transcribed, Nvivo 10 software was employed to support thematic analysis. Overall, for the different data assessed, we compared observed outcomes to stated policy objectives and the decentralization framework developed by Agrawal and Ribot (1999) based on the three elements of devolution (i.e. representativeness, empowerment and accountability of actors).

3.3 Results

3.3.1 Representativeness of actors in the SULEDO PFM programme

Tanzania's policies require PFM to be managed by village level committees elected by all village members through a village assembly (the meeting of all adult members held at least four times a year), (URT, 1982,s.55.p.32), and to be representative of all parts of the community, with special consideration of marginalised groups (URT, 1998. PS 3.p.27; URT, 2002, s.33.p.52 and s.38.p.59; URT, 2007, p.5 and 12). This is in line with Agrawal and Ribot's (1999) decentralization framework. However, we found in practice, implementation of PFM may diverge from the PFM policy. In the SULEDO VLFR, management of the forest is under three levels of Environmental Committees. The overall management is under the ZEC. ZEC leaders (Chairperson, Secretary and Treasurer) are elected by ZEC members through the ZEC assembly, with 2/3 of all ZEC members. The ZEC chairperson must be elected from among ZEC members, while the ZEC secretary may be elected from outside of the ZEC members (URT, 2011, s.3.p.14). The ZEC is formed by the chairperson, secretary and treasurer of each VEC, elected by VEC members (at least one of these three VEC leaders must be female) which is in turn composed of two members of different genders from each Sub-village⁵ Environmental Committee (SEC), who are elected by the village assembly. The SEC is nominated by sub-village assembly and approved by the village assembly. (SULEDO management and harvesting plan, URT, 2011, s.3.p 7 and 10). This is in line with PFM policy (see Figure 3.1). The village government is responsible for enforcing election rules at village level and the ZEC chairperson is accountable to village governments and is responsible for enforcing election rules at zonal level (URT, 2011, s.3.p 14 and 15).

However, awareness of who manages SULEDO VLFR was low: 19% of VEC members and 38% of other residents were not aware of the committee(s) responsible for managing SULEDO VLFR (Figure 3.2a). Awareness of how the VEC assumed their positions and when the last committee election took place, was also low among both VEC members and other residents. Half of the residents expressed ignorance as to how VEC members assume their position and even 15% of VEC members did not know how they became a member of the committee. 2% of VEC members reported that they were appointed by village government leaders, 2% that

⁵ A "Sub-village" is a recognised sub-part of a registered village (UTR, 2007, p. 5).

they were appointed by sub village chairpersons, while another 2% reported that they were appointed by forest guides (Figure 3.2b).

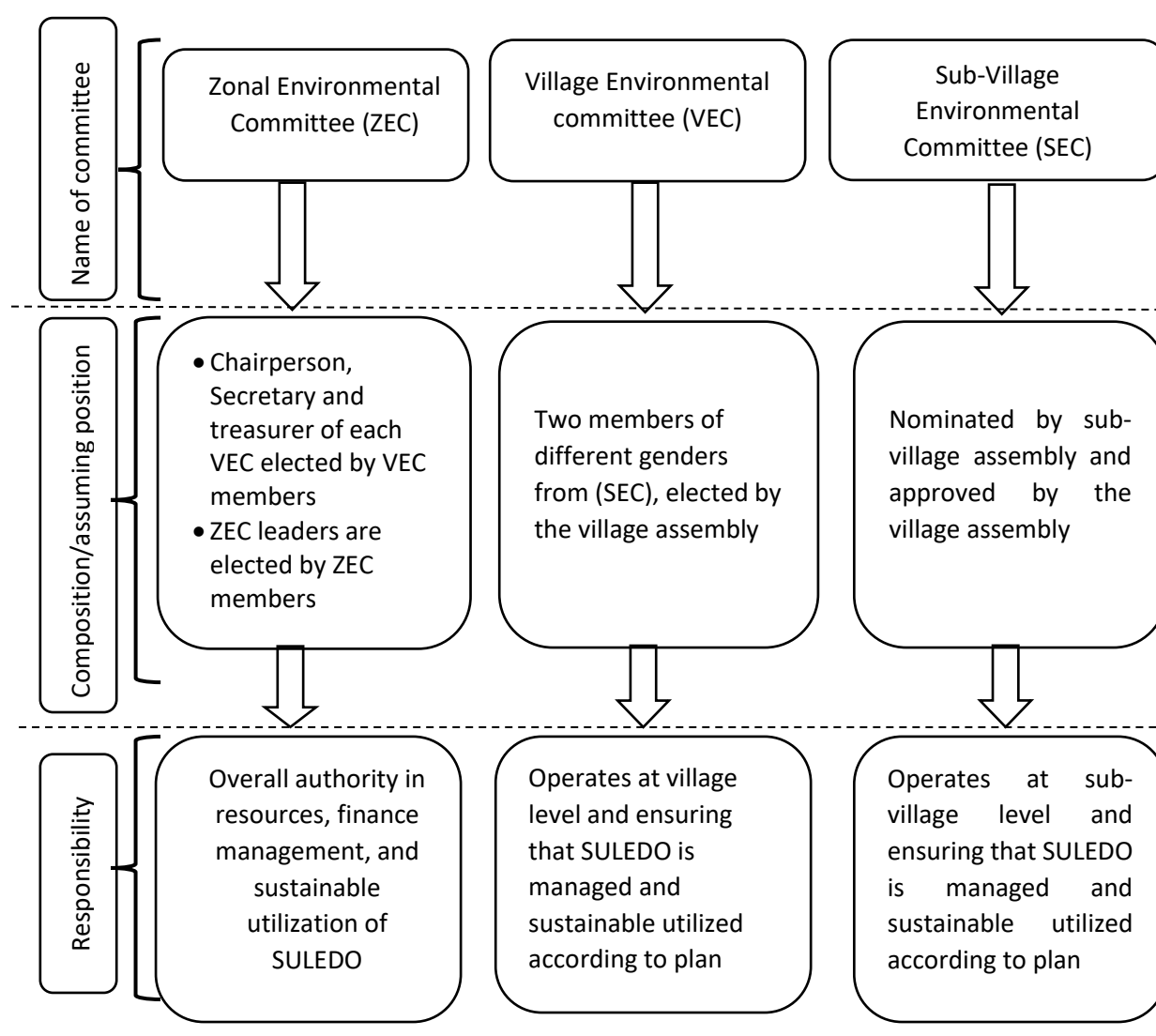


Figure 3.1: Committee composition, their responsibility and how they should assume their position, according to PFM policy (URT, 2002; URT, 2007; URT 2011).

Only 27% of residents and 21% of VEC members stated correctly that members of the VEC are elected through the village assembly. 44% of residents and 22% of VEC members did not know when the last committee election was. 15% of residents and 24% of VEC members stated correctly that the committee election was conducted in 2017, while 20% of residents and 24% of VEC members stated that the last election was conducted in 2016. Perhaps more importantly, only 18% of residents and 60% of committee members participated in the last election (Figure 3.3).

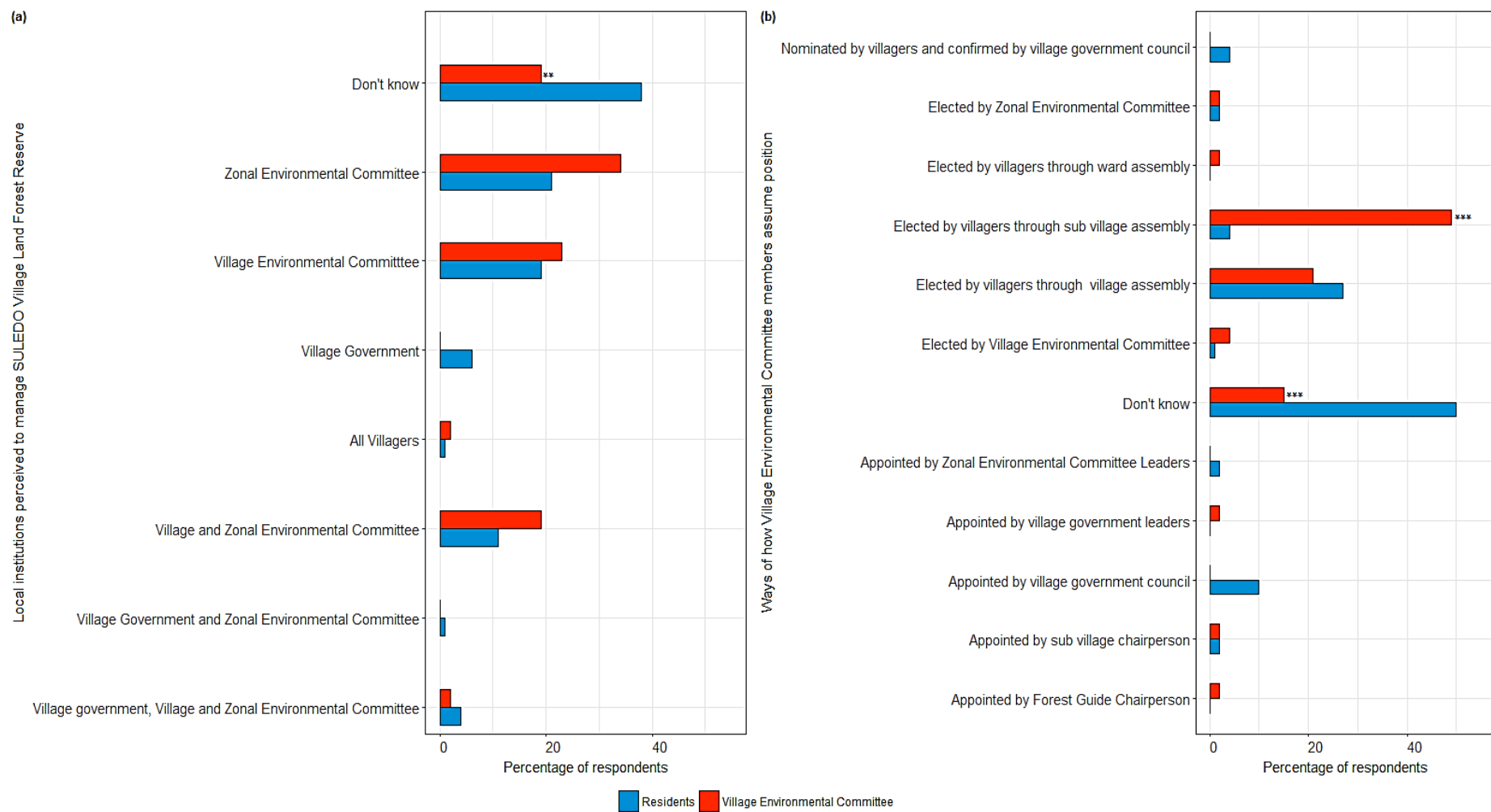


Figure 3. 2: Actors. (a) who manages the SULEDO Village Land Forest Reserve? (b) how do VEC members assume position. % of respondents choosing each option (multiple options could be chosen), divided into VEC members and other residents. Chi-square test was used to compare VEC members' and other residents' perceptions, at 1% (***) and 5% (**) level of significance.

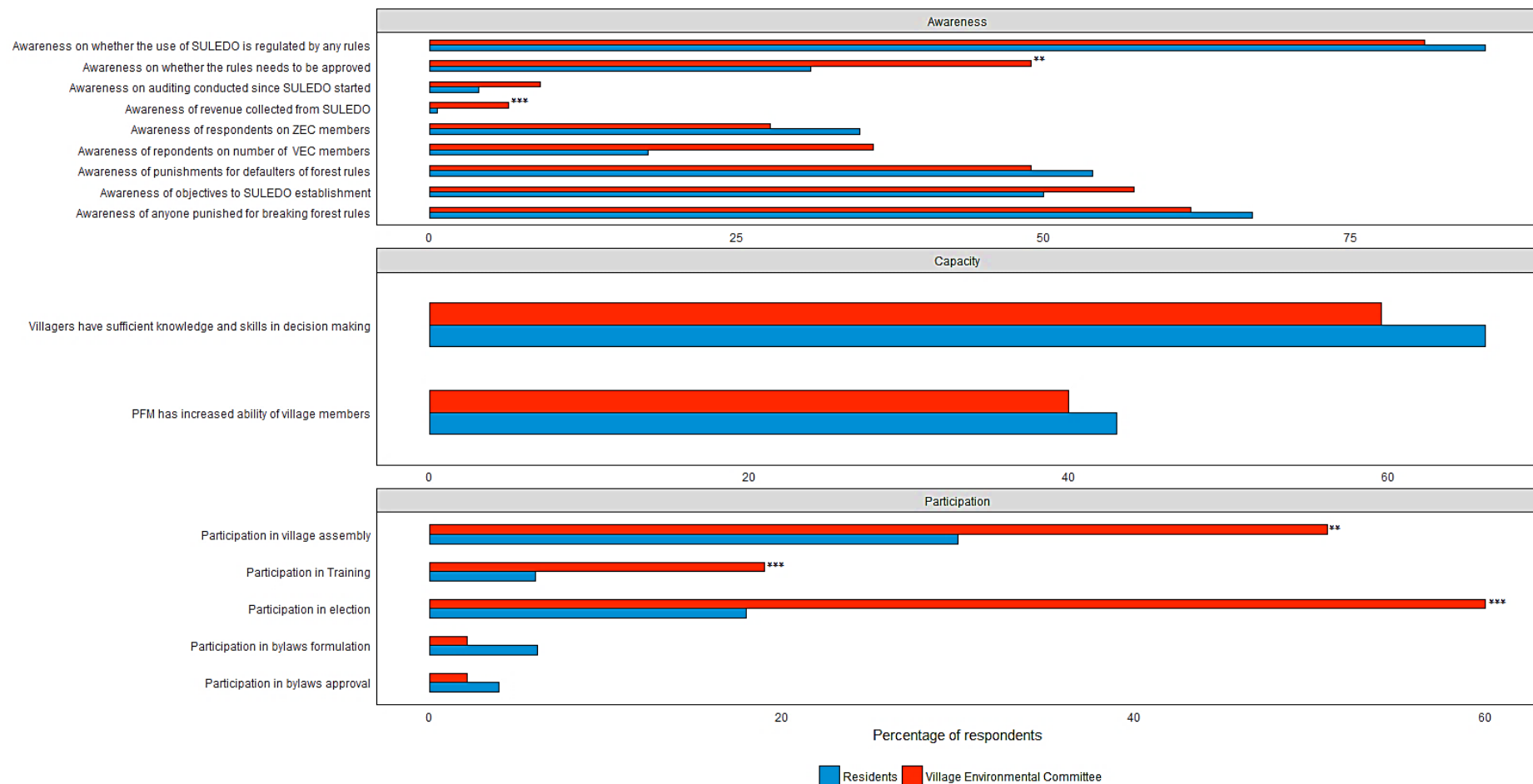


Figure 3.3: Percentage of respondents who 1) are aware of forest rules, need of rules approval, audit conducted, revenue collected, ZEC members, number of VEC members, punishment for defaulters, SULEDO objectives, anyone punished for breaking rules; 2) perceived to have capacity in decision making and whether PFM has increased ability of village members to participate in management of the village forest; 3) participated in village assembly, training, election, by-laws formulation and approval; (only one option could be chosen). Note: chi-square test was used to compare VEC members' and other residents' perceptions, at 1% (***) and 5% (**) level of significance.

3.3.2 Empowerment of residents and local institutions in the SULEDO PFM programme

In a PFM programme all community members are expected to have access to resources, participate in capacity building, decision making, formulation of by-laws and first approval of by-laws. For example, Tanzanian PFM policies require committee members to be trained in forest management skills with an understanding that these committee members will then train their constituents (URT, 1998.PS.3 and 5; URT, 2002.s.16.p. 17. s.33.p.35; URT, 2007. p.21).

Participation in village assemblies and training was low among both groups, but was higher among VEC members (49% and 19% respectively) than other residents (31% and 6% respectively, $p=0.02$ and $p=0.003$, Figure 3.3). Those who did participate in trainings were not necessarily involved in making decisions over management and utilization of SULEDO VLFR.

“ZEC leaders organise committee elections in order to show the government that they’re managing SULEDO accordingly. But in practice we are not involved in any PFM activities and there are some individuals who are not committee members but have personal ties with ZEC leaders who are actively involved. For example, when PFM training comes for VEC members, ZEC leaders tend to assign non VEC members to undertake the training with the agreement of sharing the allowance given during training. For example, if they’re paid 15000 TZS (6.52 dollars) per day then the participant will take 10000 TZS (4.35 dollars) and ZEC leader will be given 5000 TZS (2.17dollars)” (FGD 1, VEC members).

Nonetheless, a majority of residents and VEC members felt they had the knowledge and skills to participate in decision making (Figure 3.3). The ZEC chairperson is responsible for ensuring that all decisions made by the ZEC are communicated to residents through the VEC and the village government concerned (URT, 2011, s.3.p10). The VEC is responsible for ensuring that SULEDO VLFR is used according to the management and sustainable harvesting plans and should inform residents through village governments about all decisions made regarding the forest, by the ZEC (URT, 2011, s.3.p 7 and 8). However, only a few VEC members were actively involved in training, village assembly, by-laws formulation and approval, suggesting an elite within the elite (i.e. the ZEC leaders) and hence raising concerns about who has control. Focus Group Discussions with women and VEC members as well as key informant interviews with

Village chairperson and Executive Officer revealed that decisions in SULEDO VLFR are made only by ZEC leaders.

“We are aware that all decisions in SULEDO VLFR are supposed to be made through the village assembly but we know nothing about what is going on in SULEDO VLFR. All the decision are made by VEC and ZEC and we have never been invited to attend any decision making village assembly or participate in any PFM activities. The forest is continuing to be harvested but we are not benefiting with the funds obtained from harvests” (FGD 2, women).

Village chairperson noted as follows.

“We are not informed and involved in any decision making with regard to management and utilization of SULEDO VLFR, because the decisions are made by only the committee [ZEC] and village government leaders and the forest is continuing to be harvested without the consent of either the VEC or residents” (FGD 1).

The Village leader stated emphatically the following:

“As a village leader I’m responsible for ensuring that all regulations and rules are well implemented but according to PFM policies I’m not part of ZEC meeting and I have not been informed about any decision made by the ZEC” (KI3, Village Executive Officer).

One of the village chairpersons summed up the situation as follows:

“The ZEC is supposed to inform residents about any decision made about SULEDO VLFR for approval, however, currently not all decisions made by ZEC are taken to either residents or the village government office. Likewise as a village leader I’m currently not invited to ZEC meetings that concern decision making over harvesting of the forest” (KI2, Village chairperson).

Overall, access to forest resources did not differ significantly between residents and VEC members ($p = 0.359$, Figure 3.4a). However, residents were more likely to access firewood, building materials and medicinal plants than VEC members ($p < 0.001$, Figure 3.4a). Although the results show access to forest resources is high for both residents and VEC members, their access was mainly to low value forest resources. The access to timber was low and did not

differ significantly between residents and VEC members: only 22% of residents and 11% of VEC members accessed timber ($p= 0.08$, Figure 3.4a). Further evidence provided in interviews, survey and focus groups enhances our insights here, suggesting that a restricted elite (that excludes both ordinary residents and VEC members) may be dominating access to higher value timber resource harvesting; working against the PFM objective of equitable benefit sharing.

“No permit is provided to residents to access timber from SULEDO VLFR and those who manage to access timber bought the timber from ZEC but also had person ties to ZEC leaders. You can have money but you won’t be able to access timber” (FGD 1, VEC members).

One respondent in the individual survey put it this way:

“I can afford to buy timber from SULEDO but it has been difficult to get timber for roofing my house, due to excessively complicated informal procedures that ZEC leaders brought. For example, recently I saw ZEC leaders were supervising harvest in the forest, then I went to ZEC office to ask if they were selling timber because I wanted timber for my house but I was answered that there is no timber. This situation forced me to buy the timber in Kilindi district” (Individual survey, Respondent 208).

“We are not benefitting from the funds and timber obtained from SULEDO VLFR, only ZEC and village leaders are the ones benefiting. We think it’s not possible for village leaders to remain silent if they were not benefiting with funds obtained from SULEDO VLFR” (FGD3, poorest individuals).

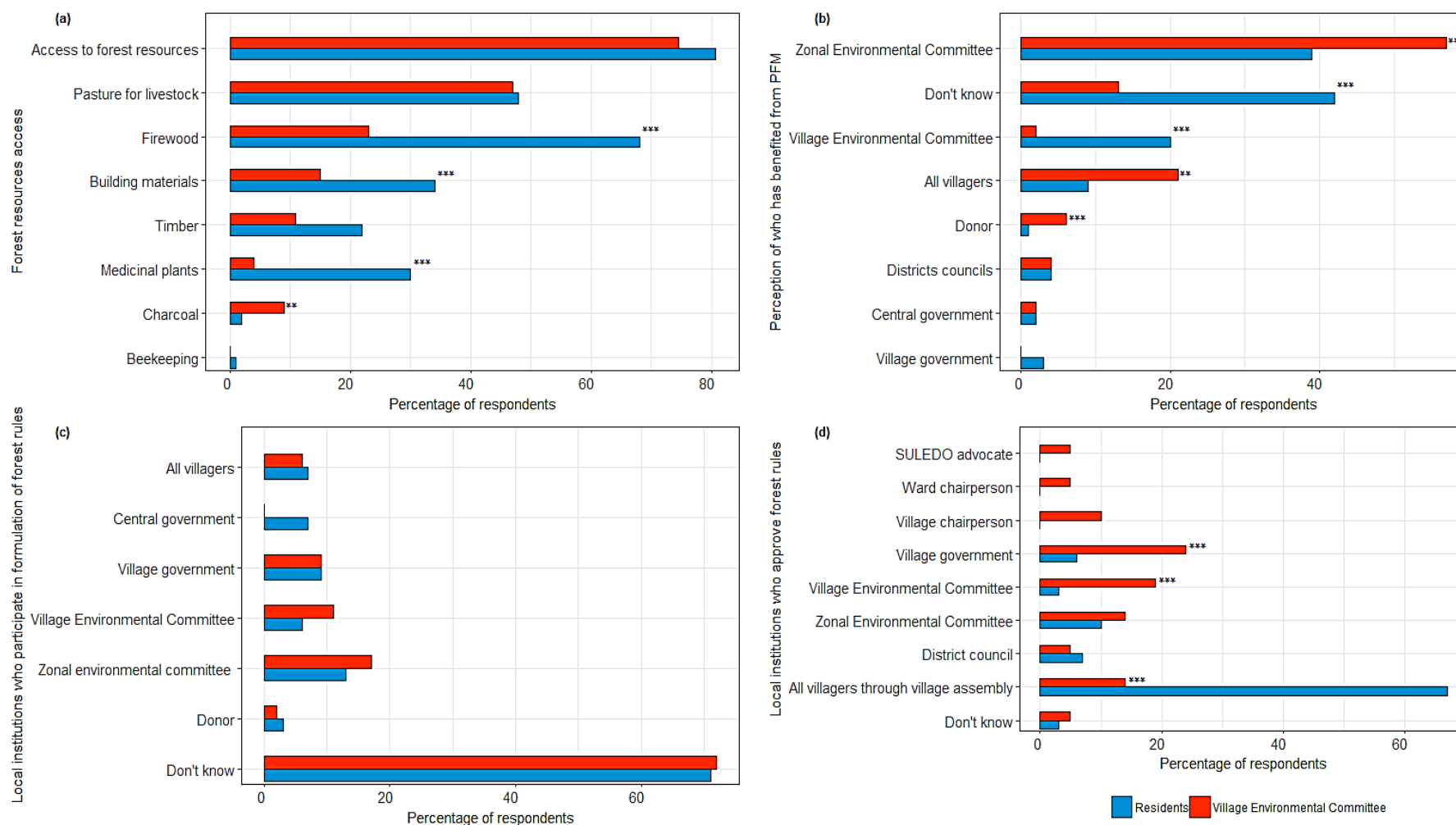


Figure 3.4: Empowerment; (a) Forest resources accessed from SULEDO VLFR; b) who has benefited from SULEDO VLFR c) Which local institution participated in the formulation of rules regulating forest use; d) Which local institution is supposed to approve forest rules; % of respondents choosing each option (multiple options could be chosen). Note: chi-square test was used to compare residents and VEC responses, at 1% (***) and 5% (**) level of significance.

The SULEDO VLFR plan specifies that all villagers should benefit from the programme (URT 2011, s.2.p5). Residents (20%) were more likely to state that the VEC had benefitted than the VEC members (2%) ($p=0.003$, Figure 3.4b) while 42% did not know who benefitted. VEC members (57%) were more likely to state that the ZEC had benefitted than residents (39%, $p=0.022$), and only 9% of residents and 21% of VEC members felt that all villagers had benefitted. (Figure 3.4b). Furthermore, VEC members were more likely to report that donors had benefitted from the SULEDO VLFR than residents ($p=0.007$, Figure 3.4b). The SULEDO VLFR plan specifies clearly that profits obtained from SULEDO VLFR should be distributed equally amongst the villages that own the forest (URT, 2011, s.6.p16). However, satisfaction with the mechanism of benefits sharing is low amongst both residents and VEC members, as well as amongst both male and female residents (Figure 3.5). Interviews with village and VEC chairpersons and a focus group with VEC members revealed that they felt that revenue from SULEDO VLFR benefits only ZEC leaders. In addition VEC leaders are members of ZEC but they were not actively involved in all PFM activities with regards to the utilization and management of SULEDO. VEC members claimed that ZEC leaders and the VEC chairperson are the ones benefitting most.

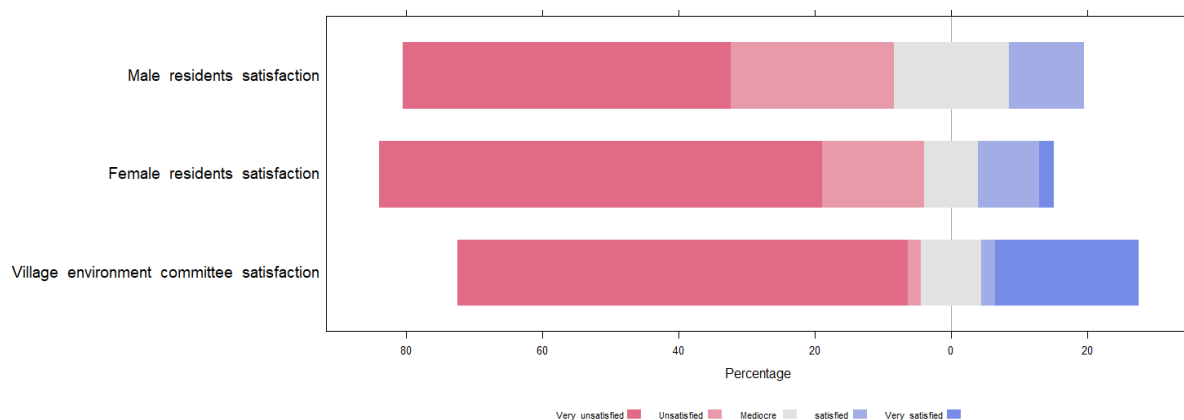


Figure 3.5: Percentage of residents and VEC members expressing different levels of satisfaction with the mechanism of sharing benefits.

“We are now approaching three years without receiving any share of benefits from SULEDO VLFR though the forest is continuing to be harvested” (KI2, Village chairperson).

The leader of a VEC reported the situation as follows:

“As a VEC leader and ZEC member I’m supposed to report all decisions about SULEDO to villagers through village government leaders but this is not happening. No decisions made by ZEC leaders are taken to other ZEC members. Currently villagers are not benefiting from revenue obtained from SULEDO. The last time for villages to receive a share of revenue from the forest was in 2004, where by each village received 1,000,000 TZS (USD 434). Since 2004, it is about 13 years though timber harvest is going on, but ZEC leaders are not reporting to other ZEC members, VEC, village leaders and residents, the revenue and expenditure from SULEDO. I’m not informed, even villagers are not informed, on how SULEDO vehicle and tractor were obtained” (K4, VEC leader).

ZEC leaders benefit more from SULEDO, because they normally made SULEDO decisions without involving and informing other ZEC members, VEC members, village government or residents. We are not informed on how the revenue from the forest has been spent, since ZEC leaders are not reporting revenue or expenditure to VEC, village government and residents. In addition, VEC chairperson is also benefiting with SULEDO, since it is impossible for ZEC leaders to start harvesting timber without communicating with VEC chairperson of the village concerned (FGD1, VEC members).

Rules and regulations that support the management plan (fines, sanctions) must be formulated and first approved by villagers through the village assembly (Forest Act: s. 34 (4); KI3). A majority of residents (71%) and VEC members (72%) expressed ignorance as to who formulated the rules (Figure 3.3c). Only 7% of residents and 6% of VEC members stated that the rules were formulated by all villagers (Figure 3.4c). In practice, an interview with the ZEC leader revealed that villagers were not involved in formulating the forest rules, all forest rules were substantially formulated by the donor in the first place.

“The rules regulating forest use were formulated by the donor (LAMP) and first approved by ZEC” (KI1, ZEC leader).

Moreover, participation in by-law formulation was low for both residents (6%) and VEC members (2%) (Figure 3.2).

As might be expected, VEC members (49%) were more likely to be aware of the need for rules to be approved than residents (31%) ($p = 0.018$, Figure 3.3), however, awareness was quite

low in both groups. Perceptions of who should approve rules differed significantly between residents and VEC members. Residents are more likely to believe (correctly) that rules should be approved by all villagers ($p=0.005$, Figure 3.4d), while VEC members were more likely to believe that rules should be approved by the village government ($p=0.008$, Figure 3.4d). Participation in by-laws approval was very low for both residents (4%) and VEC members (2%) (Figure 3.3).

Although respondents have relatively good awareness that the use of SULEDO is regulated by rules, they lack awareness of how these rules operate. 54% of residents and only 49% of VEC members were aware that SULEDO VLFR has sanctions that are enforced for breaking the programme rules. These punishments include penalty fees, imprisonment, and confiscation of tools. Both residents and VEC members were lacking precise information (according to PFM policy) of the sanctions for rule breaking. 67% of residents and 62% of committee members were aware that individuals who fail to comply with the rules and regulations for the programme have been punished (Figure 3.3).

Logistic regression models were used to predict participation in village assemblies and in elections based on individual characteristics (see Appendix 24 for model-averaged coefficients). Even the best supported models (as measured by AICc) had low explanatory power (adjusted r -squared 20% and 16% respectively). However, there is some evidence that being older and male increases the likelihood of participating in a village assembly, while committee members were more likely to participate in elections. In addition, an ordinal regression model was used to predict the level of satisfaction with the mechanism of sharing benefits based on individual characteristics (see Appendix 28 for model-averaged coefficients), but even the best supported model (by AICc) had very low explanatory power (adjusted r -squared 6%).

3.3.3 Actors' accountability in the SULEDO PFM programme

The VEC in Engang'ungare village has a total of 16 members and in Sunya 36 members. However, awareness of their identity, and that of current ZEC members, was low amongst both residents and VEC members (Figure 3.3).

“We as members of the committee, we do not know each other, this discussion you’re conducting with us is our first time to be called to discuss about SULEDO VLFR” (FGD1).

The SULEDO VLFR plan requires leaders of the VEC to be elected through the VEC assembly, by a minimum of more than half of all the members (URT, 2011, s.3.p7). During focus group discussions with VEC members, it was noted that most VEC members did not participate in such elections:

“We didn’t vote for chairperson, secretary and treasurer because we were not informed” (FGD1).

VEC members are supposed to stay in position for five years until the next election (URT, 2011, s.3.p7: KI1). 71% of residents and 43% of VEC members expressed ignorance of the terms for VEC members. Furthermore, some of the village government leaders lacked awareness of the terms for VEC members.

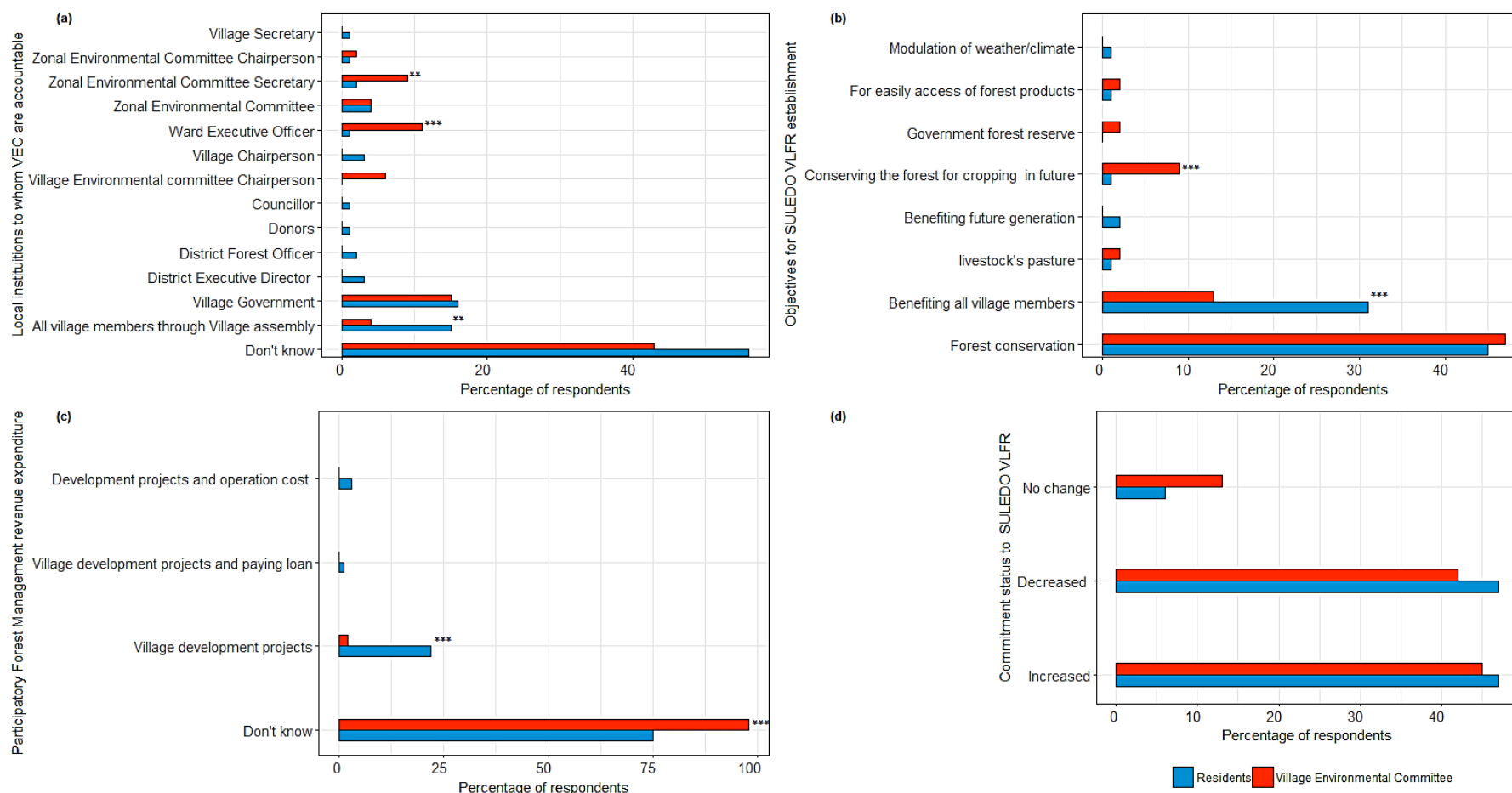


Figure 3.6: Accountability; a) To whom are the VEC accountable; b) What were the objectives of establishing SULEDO VLFR? c) How has the revenue been used, as perceived by residents and VEC members; as perceived by residents and VEC members; % of respondents choosing each option (multiple options could be chosen), d) People's commitment to SULEDO VLFR? (Only one option could be chosen). Note: chi –square test was used to compare residents and VEC perception, at 1% (***) and 5% (**) level of significance.

PFM policies require the VEC to be accountable to the village government and village assembly (URT, 2002, s. 33.p.35; URT, 2007.p. 21). SULEDO VLFR plan specifies that the VEC must report monthly, quarterly and annually to the village government on management, revenue, permits, compensation, harvest and expenditure (URT, 2011, s.4 and 6.p12 and 16). The village government must then report this information to residents (URT, 2011, s.4 and 6.p13 and 16). However, there was low awareness amongst both residents and VEC members as to whom VEC members were accountable (see Figure 3.6a), with qualitative data affirming that VEC accountability is lacking.

“Since I was elected to be in this position [Village leader], I have never received any reports from either the ZEC or VEC on management and the revenue accrued from the forest and I have no power to question them”. (KI2).

Moreover, only 1% of residents and 6% of VEC members were aware of how much revenue has been collected so far from SULEDO VLFR. The amount of revenue mentioned included 880, 1,320, 13,200 US Dollars, much lower than the 23,760 US Dollar reported by key informants from ZEC. Withdrawal of funds from the SULEDO account must be approved by residents through village assemblies. Likewise the revenue from SULEDO should be spent according to a revenue and expenditure budget prepared by ZEC and approved by residents through village assembly (URT, 2011, s.6.p16). However, 75% of residents and 98% of VEC members did not know how the revenue from the forest has been used (Figure 3.6c). In an interview, the ZEC leader stated that revenue from SULEDO has been spent on village development projects, operational costs for the ZEC office and 10% of the revenue was shared with the district council. Only 3% of residents and no VEC members reported spending in this way. Residents (22%) were more likely to state that revenue from the forest has been spent on village development projects than VEC members (2%, $p=0.004$) (Figure 3.6c). A forest official at district level noted that SULEDO was supposed to share 20% of the forest revenue with the district council but this had never happened in practice.

The ZEC is also required to employ an auditor from the private sector to check the SULEDO VLFR accounts once a year (URT, 2011, s.6.p16), but this does not appear to be happening.

Audits were conducted twice per year when the donors were supporting the programme, however no audits have been conducted since donor left 2012” (KI1)

The majority of residents stated that they did not trust the VEC, and that the VEC was very poor, or poor, in decision making and not accountable to, or legitimate representatives of, the village members (Figure 3.7).

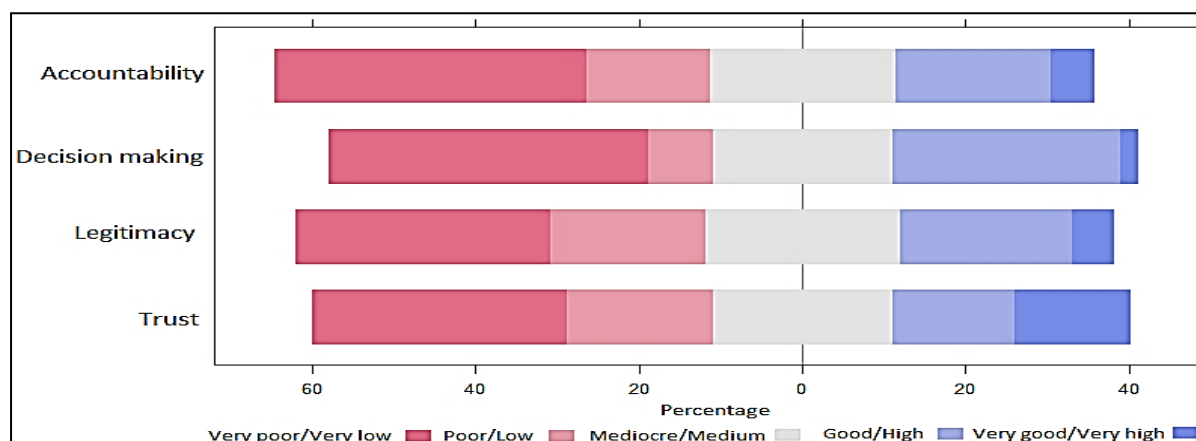


Figure 3.7: Residents' perception of levels of VEC accountability, decision making, legitimacy and trust.

The SULEDO VLFR management plan is particularly designed to ensure the forest benefits all residents and safeguards sustainable harvesting of forest products (URT, 2011, s.2.p5). Awareness of these objectives was low amongst both residents and VEC members (Figure 3.3). However, residents were more likely to be aware that the forest reserve is intended to benefit all villagers ($p=0.012$, Figure 3.6b). Finally, the self-reported ability of village members to participate in PFM was low (Figure 3.3). 47% of residents and 42% of VEC members felt that their commitment to SULEDO VLFR has decreased since the start of the forest (Figure 3.6d).

3.4. Discussion

PFM in Tanzania has established new local institutions that manage the forest on behalf of the villagers. However, villagers are not fully engaged in, or indeed aware of, the election of members for these institutions. VEC members are more likely to participate in voting for VEC members than other residents are, but even within the VEC participation remains low. In addition, much power is concentrated at a relatively high level with the ZEC leaders. Given the large area and population covered by SULEDO, approximately 54,000 people (UNDP, 2012), it may be that the ZEC leaders cannot adequately represent, or be representative of, the diversity of the communities concerned. As a result, there appears to be an elite within the elite, in terms of who has control of, and participates in, PFM decisions and activities. This

contradicts aspirations for representativeness in the devolution of power through PFM (Agrawal and Ribot, 1999).

As well as being representative, institutions should be capable and empower local people (Agrawal and Ribot 1999). There are limited PFM training opportunities in SULEDO and the few trainings seem to be allocated only to individuals with a personal tie to ZEC leaders (e.g. relatives). Thus only a few residents and VEC members have participated in PFM training, limiting awareness of their rights, responsibilities and the power that they may exercise when leaders contravene the PFM policy, this may constrain effective PFM implementation. Coulibaly-Lingani et al. (2011) and Mogoi et al. (2012) in their studies in Burkina Faso and Kenya respectively, similarly report that villagers lack knowledge and capacities to effectively implement PFM.

Our results showed that participation in village assemblies was low; residents and VEC members who attended village assemblies were not necessarily involved in decision making over management and utilization of the forest. In practice, management activities and decision making involve only ZEC leaders, this limits the capacity of VEC members to know each other. This could prevent residents' preferences from being adequately addressed and suggests dominance in the programme by a small elite or clique (see also Bardhan, 2002; Persha and Andersson, 2014; Liu et al., 2018). For PFM to be effective, decisions need to accommodate the views and opinions of all residents with special consideration of marginalised groups (Agrawal and Ribot 1999). VEC members reported that only ZEC leaders were involved in key decision-making, while residents and village government leaders have no power to question them. Other studies have similarly suggested that decision making processes in PFM are not inclusive and may be dominated and controlled by a local elite (Ribot et al., 2010; Dressler et al., 2015; Liu et al., 2018), and now we have a wider base of responses from residents and committee members to substantiate this.

We have also outlined exclusion and failings with regards to the approval and understanding of rules and regulations. Although the community are aware of the existence of rules, regulations and sanctions for the programme, they lack awareness of how these rules operate and are not participating in the formulation and approval of by-laws at the outset. This limits the sense of ownership among residents and hence undermines effective implementation

and enforcement of PFM rules and regulations. We also found a lack of transparency in how sanctions are enforced. This may lead committee leaders to bypass the forest management plan and manage the forest according to their own interest. Our findings are in line with Persson and Powse (2017), who found local communities implementing PFM in Cambodia lacked awareness of forest rules, and hence formal forest rules and regulation do not correspond to the ‘rules’ actually in use. Likewise, Liu and Innes (2015), found that local communities in China continue to implement the PFM approach with top-down decision making despite the need for bottom up approach and hence constrain effective PFM implementation.

Our results show that both residents and VEC members are dissatisfied with the mechanism of sharing benefits and few of them access timber. Interestingly we found no evidence that gender or wealth was associated with levels of satisfaction with benefit sharing mechanisms (see Liu et al., 2018). Although access to forest resources was not influenced by wealth status or gender, it did depend on the decision of committee leaders who tend to redistribute benefits in favour of individuals who are closer to and voted for them (see also Olken, 2007). For individuals and villages that are not well connected, it could be harder to secure programme benefits (Kamoto et al., 2013). This has decreased the commitment of some residents and VEC members to PFM.

Similarly, we had expected that participation in PFM activities and access to forest resources could be influenced by both wealth and gender status (e.g. Agrawal, 2001) and tested for this in our analyses. We found some evidence for an effect of gender and age, but not wealth per se. Moreover, our findings showed that participation in PFM activities were low amongst *both* residents and VEC members. This is consistent with our qualitative evidence that SULEDO has become dominated by a very restricted “elite within an elite” comprising only the ZEC leaders and close associates, rather than a broader group of VEC members or wealthier or male residents. This small elite has captured both decision-making processes and tangible benefits (e.g. training opportunities and timber harvesting).

Interviews revealed that some VEC members were appointed, rather than elected, limiting their accountability as they may be more likely to represent the interests of those who appoint them than their constituents (see e.g. Chinangwa et al., 2016; Liu et al., 2018). The

length of term for committee members, audits and handling of finances are equally crucial elements in enhancing accountability of those who control the management of the resources (Agrawal and Ribot 1999). Although the management plan requires ZEC leaders to be downward accountable, our findings show that ZEC leaders are not reporting revenue and expenditure to VEC members, village government leaders or the village assembly, limiting downward accountability. When local institutions are not accountable to their constituents, devolution is not achieved, and elite capture is likely (Baruah, 2017). Our findings suggest that access to information is critical to ensure effective participation and reduce elite capture (Pasgaard and Chea, 2013; Persson and Powse 2017). Lack of transparency on revenue and expenditure limits the power that local communities may exercise (Reinikka and Svensson, 2004). Ignorance of length of term for VEC members and lack of audits also compromises the VEC's downward accountability.

3.5. Conclusions

We have assessed the extent to which Tanzanian PFM policy achieves its governance objectives in a case study that has been relatively well-supported. We found that implementation of PFM fails to achieve at least some of the stated policy objectives for democratically elected, downwardly accountable local actors and equitable benefit sharing. Participation of residents in electing members of the VEC is low. The engagements of residents and VEC members in all PFM activities is low and a small elite seems to dominate the implementation of PFM at the zonal level, capturing both decision-making and benefits, to the dissatisfaction of other residents. Accountability of ZEC leaders to the VEC, village leaders, and residents is not evident. We found no evidence of successful resistance by marginalised groups operating through PFM institutions (though it may occur by other means, such as non-compliance, Lund and Saito-Jensen, 2013). We found little evidence for gender or wealth being a major factor determining participation amongst ordinary residents, but that appears to be because most ordinary residents, and even VEC members, seem relatively marginalised. This dominance by a small group aligned to the ZEC leaders has probably been facilitated by a low level of knowledge and engagement by ordinary residents and village level leaders. This may be because greater participation would require investment of significant time and effort, whereas the benefits of better governance would accrue to all residents. Overall, and despite SULEDO having received considerable donor support, it does not seem immune to the problems reported in other PFM projects elsewhere (Carter and Gronow 2005; Baruah, 2017; García-López, 2019; Gross-Camp et al., 2019). It is important to note, however, that we have compared the real-world performance of PFM against ideals of devolution and policy objectives. Our results should not be used to infer that PFM has not empowered local people relative to the situation prior to PFM. Relatedly, our findings represent a snapshot of the success of the PFM process around 22 years after it commenced in SULEDO, and five years after external support was phased out. Power relations are likely to evolve over time, and it may be that the dissatisfaction we observed will lead to elite dominance being challenged (Lund and Saito-Jensen, 2013). By using standardised surveys with a representative sample of local residents, our study provides a baseline against which such developments might be measured.

In terms of practical recommendations, greater inclusion of villagers in elections might be achieved by improving awareness with regard to election calendars for committee members (Behera and Engel, 2006; Persson and Prowse, 2017). Government, external facilitators and committee leaders could explore effective and cost-efficient options for information exchange. Awareness raising and training beyond village assemblies, which targets all residents and offers opportunities amongst villagers for co-learning, might help to enhance capacity to implement PFM and awareness of rules. Finally, decision making processes should ensure effective inclusion of all parts of the community to avoid elites controlling decisions and capturing committees to which power is devolved. Ensuring inclusion of all villagers in by-law formulation and approval should enhance the sense of ownership and hence the enforcement of decisions (Agrawal and Ribot, 1999; Kamoto, 2007). Thus, external facilitators should allow enough time for wider consultations with all participants and assume advisory and facilitation roles during by-law formulation rather than owning the process. In order to ensure downward accountability and transparency in implementing the approach, there should be public audit and hearing sessions. All this would require ongoing support by donors and ultimately by state institutions. Although PFM was promoted partly as a devolved response to perceived state weakness, its success may still depend on the capacity of state institutions.

Caution is also required in assuming that better external support would be sufficient to address the weaknesses in PFM. SULEDO VLFR received donor support from the mid-1990s until at least 2012, yet failings are still apparent. Therefore, simply increasing support to local communities implementing the PFM might not be enough to achieve devolution if the policies themselves are not well designed, for example if the institutions imposed by PFM are too complex, or if the spatial scale over which PFM institutions operate is too large (larger than pre-existing village level institutions). Complexity and distance between decision-makers and those affected increases the barriers to participation, and dilutes the reward. PFM has created new institutions, which lie outside the existing democratic institutions of village government, and operate at higher spatial scale (in the case of the ZEC). Village government leaders appear to be relatively powerless to hold PFM leaders accountable in practice. Without idealising village government, it may be that the creation of entirely new structures has created opportunities for elite capture that might have been mitigated if existing structures, which might be better understood by residents, had been given greater power in the PFM process.

Chapter 4. DID THE PROCESS OF TANZANIAN PFM POLICY DEVELOPMENT HAMPER THE ACHIEVEMENT OF DEVOLUTION?

Abstract

Democratic legitimacy and wide stakeholder engagement in the process of policy making are prerequisites for achieving effective and efficient policy. Attempts to improve PFM policy implementation must consider an assessment of the process of policy making, because any weakness in this stage may affect the policy design as well as its implementation. No previous studies have documented to what extent the process of PFM policy-making contributes to the limitations of PFM. In this chapter, I assess how Tanzania's PFM policy was developed, to understand why and how the failings identified in policy design came about. I conducted key informant interviews with 11 stakeholders that were involved in the process of PFM policy formulation in Tanzania to answer these research questions: (a) where did the idea of PFM policies come from? (b) Which stakeholders had greater/lesser influence or power over policy formulation? (c) How did the formulation of PFM policies consider including the different interests and issues from different stakeholders? (d) What were the constraints faced during the process of PFM policy making? I found that foreign donors and NGOs played a great part in the process of policy formulation, with a lack of wider stakeholder engagement and inadequate consideration of local community dynamics. This attributed to weak policy design that failed to consider representation of poorest individuals in the Village Environmental Committee, because policy-makers thought that all villagers were poor. As a result implementation of PFM excluded the poorest people from gaining PFM benefits, hampering the policy in achieving the goal of local empowerment. Consistently, key personnel in the government actively disagreed with the rationale for PFM. This led to PFM policy being weakened at the design stage. Policy will be more acceptable to implementing authorities if there is greater stakeholder awareness and engagement during policy formulation. Improvement of stakeholders' engagement and political acceptance in the development of PFM policy could lead to more effective policy design, increased acceptance of the policy and a sense of ownership upon implementation.

4.1 Introduction

The public policy making process is heavily dependent on effective collaboration between private actors, local communities and the state, although the state usually initiates the process (Howlett and Rayner, 2006). Effective public policy design is never achieved without considering and accommodating scientific inputs and views of different stakeholders affected directly or indirectly by the policy (Bruña-García and Marey-Pérez, 2014; Nagasaka et al., 2016). The process of making public policy, including decentralization policies, must consider a democratic approach, thereby encouraging participative and decentralized processes (Hogl, 2002). Empirical research and deliberative theory (Bäckstrand et al. 2010; Johansson, 2016; Kleinschmit et al., 2018), indicate that broad stakeholder participation, transparency of political decisions, awareness of collective responsibility for decisions in the process of policy making is vital. Not least because stakeholders' input will probably determine their willingness to contribute and participate in the long term policy implementation (Scharpf, 1999; Howlett and Rayner, 2006; Johansson 2016). Likewise, stakeholders involved in the process of policy making are likely to consider decisions more legitimate, and support them, if they have participated in the decision-making process, thereby reducing conflicts and resistance during implementation of the decentralization policies (Bäckstrand et al. 2010; Johansson, 2016). Legitimacy could be enhanced by promoting deliberative collaboration between stakeholders with strong interests in the resource's management and utilization (Raitio and Harkki, 2014), helping achieve more effective and acceptable policy design (Rowe and Frewer, 2000; Reed, 2008).

Participatory Forest Management policy has emerged as a potentially more sustainable approach to forest conservation and management (Alden-Wily and Mbaya, 2001; Getacher and Jimma, 2012). In the 1980s most of the countries in Africa adopted the approach due to a shift in rural development thinking and practice (Barlett and Malla 1992, Timsina 2003). In Tanzania, PFM was introduced in the 1990s (Blomley and Ramadhani, 2006). Up to 2001, Tanzania was among the leaders in this approach in term of numbers of communities involved and hectares of forest involved (Alden -Wily, 2001). In Tanzania, PFM started as a pilot project through a special programme called Local Management of Natural Resources Programme (Alden -Wily, 2001). The programme began in 1992, funded by the Swedish Government, and started by helping villages to confirm the boundaries of their Village Areas and to survey and

map those boundaries (Alden-Wily, 2005). At the same time, the project had a policy of promoting tree planting through home nurseries (Alden -Wily 2005). In 1994/95, SIDA-funded the Regional Forestry Programme that assisted eight villages to establish the first pilot Village Forest Reserves in Duru Forest (Alden-Wily 2005). Villagers succeeded in managing the Duru Forest well (Alden-Wily, 2005; Blomley and Iddi, 2009). This pointed the way forward for future forest management in Tanzania and led the idea of involving local communities in forest management to be formalised in the national Forest Policy (1998) and Act (2002) (Alden-Wily 2005).

Many countries (e.g. Uganda, Kenya, Ghana, Nigeria, Madagascar, Malawi, Mozambique, Guinea, Namibia etc.) borrowed from Tanzania's PFM experience (Alden-Wily 2001). However, since the implementation of PFM, several studies have documented mixed impacts of PFM on forest governance (e.g. Bowler et al., 2012; Lambrick et al., 2014; Lund et al., 2018). Reviewing a range of previous studies, Primmer and Kyllönen (2006); Larson et al. (2010); Poteete and Ribot, (2011); Saarikoski et al. (2010); Winkel and Sotirov, (2011), found (with some exceptions) that PFM failed to improve participation of local communities in forest management. The high cost of forest resources (e.g. timber) seem to exclude the poorest individuals from accessing PFM benefits (Lund and Treue, 2008; Rai et al., 2017).

In other instances, PFM policies and central government transferred limited powers to local communities (Chomba et al., 2015; Mutune and Lund, 2016; Das, 2019). This situation has constrained the decision making power and sense of ownership of local communities (Scheba and Mustalahti, 2015). It is useful to analyse to what extent the process of PFM policy formulation contributes to the approach failure. Previous studies (e.g. Mukherjee and Howlett, 2015; Béland et al. 2018), have considered this, but focussing particularly on the general review of the process of public policy formulation. For example, Mukherjee and Howlett, (2015) detailed how actors interrelate and interact with each other in the process of policy formulation and highlighted that adequate interaction of actors in all stages of policy-making is essential. Béland et al. (2018) highlighted that active interaction of actors in policy making provides a clearer sense of what drives policy-making forward and determines its tempo as well as its content. A notable weakness of previous studies that I aim to address in this chapter is the focus of desk- based data. Both desk-based and field based data aim to

generate rich data that seeks to understand and interpret more local meaning and produces knowledge that contributes to more general understandings. However, desk-based may lead to risk of missing study specific nuances or glitches accrued during the process of data collection that may be necessary for interpretation of data, hence reduce the validity of the data. In order to assess the extent to which the process of policy making has contributed to PFM failure, we need studies with more accurate data, direct collected from the source to ensure that all policy constraints are identified. To the best of my knowledge, no PFM policy studies to date have analysed the extent to which the process of PFM policy formulation contributes to the success or failure of the approach.

A key point here is to analyse to what extent the process of PFM policy-making contributes to the PFM policy failure. This has prompted critique from Craft and Howlett, (2012) who question the understanding of the process of policy formulation shown in some evaluations. Craft and Howlett, (2012) highlighted that there is still limited information in any given situation on which actors are likely to exercise more influence and prevail over others in a policy formulation process. My study is useful in identifying whether some failures of PFM policy may stem from limitations inherent in the process of the policy formulation which affected the policy design as well as policy implementation. Therefore, this study focuses on how Tanzania's PFM policy was developed, to understand why and how the failings identified in policy design (in chapter 2) and outcomes (in chapter 3) came about? I conducted qualitative interviews with stakeholders involved in PFM policy formulation to understand; (a) Where the idea of PFM policies came from? (b) Which stakeholders had greater/lesser influence or power over policy formulation (whose views and interests prevailed?) (c) How did the formulation of PFM policies consider including the different interests and issues from different stakeholders? (d) What were the constraints faced during the process of PFM policy making? This chapter contains four sections: following this section, the second section outlines the methods; the third section presents results and discussion; and the last section provides conclusions.

4.2 Methods

4.2.1 Sampling design

Respondents were purposefully selected using the snowball sampling method focussing on individuals who were involved in the process of PFM policy formulation. The preliminary respondents were identified through literature review. The information gained from the preliminary respondents helped to identify other respondents. Earlier respondents introduced other stakeholders that were involved in the process of PFM policy formulation. The process of identifying respondents continued until data saturation.

4.2.2 Data collection and analysis

Key informant interviews were undertaken in 2017 with 11 key informants who were involved in the process of PFM policy formulation. Informants included staff in the Forest and Beekeeping Division (FBD) of the Ministry of Natural Resources and Tourism, academic and research institutions, Tanzania Tree Seed Agency and donors (Table 4.1). Key informant interviews aimed to gain a richer perspective on how the PFM policy was formulated, specifically looking the origin of the PFM idea, whose views and interests prevailed, consideration of different interests and issues from different stakeholders. Before the actual interview, I pre-tested the interview guide (Appendix 29) to my colleagues working in forest sector and then revised it based on the responses received. I also asked for consent from the management of the respective institution before contacting the intended key informants. After receiving permission from the institution management, and before interview, key informants were given participant information (Appendix 9) that explained the purpose of the study, confidentiality of their response and how their response will be used. Then all interviewees were asked for their consent to participate in the study (Appendix 11). The interviews were conducted using Swahili and English languages and lasted for around one hour for each respondent. Notes were taken immediately after each interview. Interviews were audio recorded and transcribed. Then all the transcriptions in Swahili were translated into English and thematically analysed (Braun and Clarke 2006). The study was approved by the Bangor University Ethics Review Committee. I developed an initial coding framework using Nvivo 10. The following themes were included in the analysis of PFM policy making; Origin of PFM idea, dominant stakeholders during the process of PFM policy formulation

(based on critical elements proposed by Agrawal and Ribot decentralisation framework of 1999), stakeholders that had more influence/power, inclusion of common citizens, broad participation of different stakeholders; challenges undermine the process of PFM policy formulation. I expanded the analysis following the identification of new themes and constantly revised the identified themes based on new insights obtained from data analysis.

Table 4.1: Interviewees

Code	Post held at the time of policy formation in 1997	Date interviewed
1	Senior officer from Forestry and Beekeeping Division	07-02-2017
2	Officer from Forestry and Beekeeping Division	09-02-2017
3	Officer from Forestry and Beekeeping Division	10-02-2017
4	District Catchment Manager from Forestry and Beekeeping Division	14-02-2017
5	Officer from Forestry and Beekeeping Division	15-02-2017
6	Officer from Forestry and Beekeeping Division	23-02-2017
7	Officer from Forestry and Beekeeping Division	27-02-2017
8	Senior Research Officer from Tanzania Forestry Research Institute	08-03-2017
9	Officer from Forestry and Beekeeping Division	20-04-2017
10	Senior staff member from Tanzania Tree Seed Agency	30-06-2017
11	Staff member from Swedish International Development Cooperation Agency	10-11-2017

4.3 RESULTS AND DISCUSSION

4.3.1 The origin of the Participatory Forest Management idea

Many interviewees reported that the Swedish government, through the Swedish International Development Cooperation Agency (SIDA), brought the idea of PFM. Likewise, policy design was highly influenced by SIDA staff. The staff from SIDA borrowed some experience from a PFM pilot project established in the country and supported by SIDA. A few civil servants from the Forest and Beekeeping Division (FBD) specified that formulation of PFM policy drew comparisons to other countries where it was working e.g. Asian countries (Thailand and India) while a few interviewees mentioned that some experience was borrowed from Kenya and another mentioned Zimbabwe. This was in the form of short visits. However, there was not always consideration of these experiences, as a civil servant from Forest and Beekeeping Division (R9) claimed that the process of PFM policy formulation did not consider the experience that he brought from India. For example, he proposed that funds obtained from the PFM approach should be distributed to each household and then let local communities voluntarily contribute to village development projects.

“Funds obtained from the PFM approach should contribute to individual or household income and not village development projects. This was the experience borrowed from India” (Officer from Forestry and Beekeeping Division, R9).

Likewise, staff from SIDA reported that the process of PFM policy formulation did not consider the experience of other countries. Staff from SIDA (R11) acknowledged that SIDA staff brought the whole idea of PFM. A SIDA staff member put it this way:

“The whole idea was brought by me, but to be honest I was working closely with very good district forest officers and also borrowed some practical experience from the PFM pilot project” (Staff member from SIDA, R11).

PFM was seen as a substantive change in thinking for the policy actors in Tanzania: it brought new ways of thinking that were not aligned with their previous approaches and norms. It was revealed that most of the policy-making participants from FBD and Tanzania Tree Seed Agency were not happy during the process of introducing the PFM idea into forest policy. This is because it seemed that donors (e.g. SIDA) pushed the introduction of PFM and these

participants thought that the implementation of it would not be sustainable after the end of donor support. After which, they felt their previous approaches of forest management will no longer be in place and the PFM approach will be undermined. Hence, this would cause more challenges to achieve sustainable forest management. Most of the forest staff felt that it was better for the government to improve the current approach to forest management than adopt the PFM approach.

“The idea of PFM was pushed by donors but most of the stakeholders involved in the process of the policy formulation (including me), we were not happy with this idea” (Senior staff member from Tanzania Tree Seed Agency, R10).

However, the Senior officer from Forestry and Beekeeping Division (R1) mentioned that the idea was adopted by Forestry and Beekeeping Division staff, after being faced with many challenges (e.g. shortage of staff and funds to take care of forests), that had contributed to the increased rate of deforestation. Anderson, (2003) argue that policies emerge in different sectors in response to policy demands. Overall, although the idea of introducing PFM to overcome a shortage of personal and financial resources was considered by senior staff from FBD to be a reason for introducing PFM, it was apparent that SIDA brought the whole idea of PFM and played a greater part in the PFM policy formulation than other stakeholders did. This may have reduced the sense of ownership and the amount of decision power that other stakeholders may exercise in the process of policy-making, e.g. accessing decision-making process. Hence contributing to weak policy design, since the policy may be formulated based on foreign donor standards and not local context (Abas, 2019). Gobeze et al., (2009) also reported that PFM was introduced to Ethiopia by some NGOs and a foreign donor brought the whole idea of PFM to Ethiopia, aiming to overcome open access to forest resources and promote sustainable forest management (FAO, 2011; Ameha et al., 2014a).

4.3.2 The views and interests of the stakeholders that prevailed during policy formulation

It was apparent that SIDA had greater influence and a stronger voice in pushing the PFM idea than other participants from e.g. Forestry Beekeeping Division, Tanzania Tree Seed Agency and Tanzania Forestry Research Institute. The Director of Forestry and Beekeeping Division had institutional power that supported SIDA over policy formulation. Most respondents felt that the resources (experts and funds) and policy knowledge SIDA possessed contributed to

their influencing power. This drove SIDA to use their technical expertise as power in influencing the process of PFM formulation, which in turn determined the PFM policy design. Therefore, most inputs that prevailed during the process and incorporated in the policy came from SIDA experts and borrowed some experience from the PFM pilot project supported by SIDA. A staff member from SIDA believed they contributed most inputs to Tanzania's Forest Act and PFM guidelines.

"I formulated the forest act and PFM guidelines, so most of the inputs in the PFM policy was from me. However, during developments of Forest Act, I worked quite closely with various colleagues of mine, who had been drafting the new land law, so I was sending the draft of forest laws to him for comments. During development of PFM guidelines I had some inputs from District Forest Officers (District council) and District catchment Officers (Forest and Beekeeping Division)" (Staff member from SIDA, R11).

SIDA seemed to play a great role in the process of PFM policy formulation and influenced other stakeholders to agree with the policy. When external actors dominate the process of policy formation and influence actors in government, there may be a risk of developing a policy that does not reflect the interests, preferences and values of the masses (see e.g. Dye and Zeigler 1996; Dye, 2001; Nguyen et al.2018). Hence, this may undermine the PFM policy to achieve its objectives during implementation.

There were similarities in the responses of most of the respondents on who should have the right to be involved in the process of PFM, what powers they should be given, and to whom and how they should be held accountable (see below in actors, empowerments and accountability sections), (Appendix 30). However, the senior staff member from Tanzania Tree Seed Agency and participants from the Forestry and Beekeeping Division who had been civil servants for a long time were reluctant to involve and empower local communities to manage forest resources. They wanted government to maintain the previous forest management approach, as they were not sure of the sustainability of the PFM approach. The senior staff member from Tanzania Tree Seeds Agency and participants from the Forestry and Beekeeping Division reported that before the implementation of PFM, local communities were regarded as the main causes of deforestation; their concern was therefore over how the government could establish collaborative efforts and empower victims of illegal forest

activities to manage forests. Likewise, how trustworthy would local communities be to take care of forest resources? They thought that the approach would take the forest sector back to the Ujamaa⁶ system that included communal ownership of resources. The senior staff member from Tanzania Tree Seed Agency also felt that most village members are relatives, and that this could lead to nepotism in the policy implementation that could affect the enforcement of bylaws for the PFM approach. The failure to give sufficient consideration to this view and ensure adequate safeguards in PFM policy have resulted in inequalities in access to forest resources and benefits sharing, because committee leaders tend to favour individuals who had personal ties to them (see chapter 3). Other civil servants from the Forestry and Beekeeping Division were reluctant to involve local communities in forest management because they did not want to lose their power and control over forest resources. This situation may have resulted in further deficiency in implementation because some forest officials are unwilling to provide technical support to local communities implementing PFM. As a result, committee leaders may manage the forests according to their own interest (see chapter 3). The senior staff from Tanzania Tree Seed Agency put it this way:

“Most participants were negative about the PFM idea. I was also among participants who were not happy with the introduction of PFM idea, because it seemed like government had failed to take care of the forest resources and wanted to involve local communities who were the origin of illegal activities. We thought that if government devolved power to local communities, sometimes local communities might decide to overharvest the forest because they have ownership power. We also felt that it would be difficult for local communities to enforce the bylaws due to nepotism at local level. I thought about this proverb: “if you cannot beat them, join them”. Then we were reasoning what is the origin of the PFM idea? We thought this policy came from abroad and pushed by donor, probably the original ideal is not ours, which was not very good, so we were just copying from the donor. What we wanted was the government to strengthen the forest management power to our approach” (Senior staff member from Tanzania Tree Seed Agency, R10).

⁶ Ujamaa means contemporary Tanzanian socialist ideology and policies, formed by President Julius Nyerere after Tanzania gained independence from Britain in 1961 (Boesen et al., 1979). The Ujamaa aimed at e.g. creation of one policy system, institutionalization of social, economic and political equality and collective production (Pratt, 1999).

Thus, local communities were regarded as the source of forest degradation during PFM policy formulation. This situation may have limited the amount of power that government devolved to local communities, resulting in formulation of weak forest policy that failed to achieve PFM's empowerment goal. Agrawal and Yadama, (1997); Ribot, (2004) have argued that local communities are likely to manage forests much better and more efficiently than the state if they are fully empowered. However, this argument has not been rigorously tested because it needs a number of cases where local people are fully empowered to implement a decentralization approach, which do not currently exist. The concerns of forest officials with the introduction of PFM may have attributed to weaker policy that devolved limited enforcement powers to local communities, and limited their power to give or withhold final approval of the forest by-laws. This constrained local communities' decision-making power and sense of ownership, hence undermining their empowerment. Likewise, the policy makers' disquiet about the policy may contribute to low acceptability of the PFM policy with forest officials and a lack of willingness to implement the policy, even with the availability of adequate financial resources. Our findings are in line with e.g. Rondinelli et al. (1989) in Morocco and Wanasinghe, (1982) in Sri Lanka, who found civil servants opposed the decentralization arrangements due to lack of trust to local communities.

Which actors should be involved in PFM?

Most of the respondents believed that all local communities adjacent to forests should be involved in implementing PFM, and that members of the Village Environmental Committee (VEC) must be duly elected by their constituents; representative of all groups in the community. This view of actors proposed by most respondents prevailed in the current PFM policy, contributing to its potential to achieve devolution and this is different to the case in other countries as identified in Chapter 2. Chitinga and Nemarundwe, (2003); Ortalo-Magné and Rady, (2008); Htun et al., (2012); Jalilova et al., (2012) have argued that communities are heterogeneous and usually this divergence among communities, needs to be considered in implementation. However, I found that there was no specific consideration of the representation of poorest individuals in the Village Environmental Committee during the policy formulation, because respondents thought that all villagers were poor. This was reflected in the PFM policy, which does not specifically consider the representation of the

poorest individuals in the VEC. As a result, implementation of PFM excluded the poorest people from gaining benefits due to the high cost of forest resources e.g. timber (Egunyu and Reed, 2015; Lund and Treue, 2008; Persson and Prowse, 2017). Hence, this may have resulted in elite dominance in decision making and failure of the approach to benefit all individuals in the community as expected. Lack of consideration of poorest people contradicts aspirations for representativeness in the devolution of power through PFM (see e.g. Agrawal and Ribot, 1999; Carter and Gronow, 2005). The senior staff member from Tanzania Tree Seed Agency acknowledged that he and most of the staff from Forest and Beekeeping Division who had been civil servants for a long time felt that only government should continue to manage the forests. This situation may have attributed to a failure of the policy to be taken up, even if the policy wording is more progressive.

Empowerment of residents and local institutions in the PFM programme

For PFM to achieve devolution it is necessary to empower ordinary community members with utilization rights, management capacity, decision making and enforcement powers to enhance their participation and representation in implementation (Agrawal and Ribot 1999; Chinangwa et al. 2016). It was apparent that views and interests of most of the stakeholders involved in PFM policy formulation with regard to empowerment were unpromising to achieve devolution but prevailed in the PFM policy (Appendix 30). Participants who agreed with the proposed PFM policy draft developed by the staff member from SIDA were civil servants from district councils and the Forestry and Beekeeping Division who were involved in the implementation of the PFM pilot project. For example most of the respondents proposed that local communities should be empowered only with full management capacity, limited enforcement power and utilization rights, but with no decision making power about management and utilization of the forest resources in either Community Based Forest Management and Joint Forest Management. However, a few respondents from Forestry and Beekeeping Division suggested that local communities in both CBFM and JFM should be empowered with decision-making power, skills of forest management, power to formulate and initially approve by-laws to enhance sense of ownership and be empowered with utilization rights that will allow them to get tangible benefits. Their views prevailed in the CBFM policy but the staff member from SIDA did not consider their suggestion with regard to

decision making power in JFM policy, since JFM was proposed to take place in government forests. A few interviewees, however, wanted local communities to be empowered with only management capacity.

The senior research officer from Tanzania Forestry Research Institute suggested that local communities in Joint Forest Management should be empowered with financial resources that will motivate them to implement the approach, because most of these forests are catchment forests with full protection, meaning that no production activities are allowed within the forests. Giving adequate financial resources to local communities could enhance their management capacity hence improving forest governance. However, the PFM expert from SIDA did not consider the suggestion in the PFM policy. Inadequate consideration of this view in the policy may have resulted in formulation of PFM policy that lacked clear commitments for sustainable financial support from the government to PFM. As a result, implementation of PFM has been dependent on donors and NGOs support, which has not been sustained. If the financial support had been provided by the government, PFM would be more sustainable.

“I suggested that there should be a clear commitment in the PFM policy that requires the government to set a budget for local communities who are managing Joint Forest Management. Otherwise, Committee members will create a room for illegal activities so that they can get fines for their allowances. It difficult to expect local communities to manage forests without getting money or benefits” (Senior Research officer from Tanzania Forestry Research Institute).

The same respondent from Tanzania Forestry Research Institute reported that NGOs involved in PFM policy formulation proposed that local communities in CBFM should be fully empowered, in such a way that they could issue licences on their own and manage harvesting of the forest resources. Because when the District Forest Officers would issue licenses to individuals who want to harvest on Village Land Forest Reserves, the local communities concerned would not have power to access that money. This prevailed in Community Based Forest Management policy and may increase the sense of ownerships to local communities.

A civil servant from the Forestry and Beekeeping Division reported that local communities who were involved in PFM policy formulation wanted the CBFM policy to allow them to start

harvesting the forest soon after starting implementation. Nevertheless, it was not possible to consider the suggestion in the PFM policy. This was because according to the PFM requirements, local communities needed to be trained on how to manage the forest first, and then manage the forest for some time, until gain governance experience and the forest developed into the desired condition. Likewise, the civil servant from Forestry and Beekeeping Division mentioned that the local communities wanted to share equally with the government all revenue obtained from Joint Forest Management. However, stakeholders agreed that local communities would get 40% and government 60% of the revenue because the government own the forests under JFM. This view of 40:60 percentage of sharing was inadequately considered in the PFM policy, due to reluctant of forest officials to devolve power to local communities, hence the current PFM policy lacks clear mechanism for sharing forest benefits in JFM. As a result, local communities' commitment to JFM may wane if the approach is not granting them tangible benefits. In addition, civil servants from the Forestry and Beekeeping Division reported that some of the local communities involved in PFM policy formulation wanted to implement the approach in the absence of forest officials, claiming that forest officers are the sources of illegal activities and corrupted. Therefore, local communities thought that they would not be able to implement the approach effectively with their presence. Absence of active involvement of forest staff in PFM prevailed in Community Based Forest Management policy but not in Joint Forest Management policy. This may have increased the sense of ownership and amount of power that local communities may exercise during implementation, achieving effective empowerment of local communities in PFM.

It was evident that the process of policy-making inadequately considered the need to raise awareness among local communities with regard to their rights over forest management, access and use. This has resulted in weak policy that lacks commitment to ensuring local community awareness of their rights, responsibilities and forest by-laws. Hence, this has undermined the effective implementation of PFM, because local communities, including village government leaders, have failed to exercise their power when forest committee leaders contravene the PFM policy. This situation may have contributed to creating an elite that captures the process of decision-making and the benefits of PFM, hence compromising the aspiration for empowerments in PFM. Similarly, Mogoi et al. (2012) report that community forest associations in Kenya lack knowledge and capacities to effectively

implement PFM, this has been attributed to weak PFM policy that lacks clear national commitments for ensuring awareness (among both Community Forest Association Committee and ordinary members) of their responsibilities in PFM upon implementation. It is argued that the PFM approach could achieve positive outcomes if PFM policies devolve the right management capacity and powers to local actors (Føllesdal, 1998; Ribot, 2003; Larson and Ribot, 2004). The reluctance of most of the participants to empower local communities with balanced enforcement power has resulted in developing policy that lacks clear commitment to empower local communities to have the final say on approving forest by-laws. Lack of local community power to give final approval to forest by-laws may have attributed to a lack of awareness of local communities of the rules and how these rules operate. This situation has reduced the sense of ownership among local communities and the amount of power that local communities may exercise during implementation hence constrained effective PFM implementation. Mutune and Lund, (2016) and Chomba et al. (2015) in Kenya and (Das, 2019) in India, argue that PFM policies contributed to reduce the sense of ownerships among local actors, because the policy empowered local actors to execute rules without requisite power to formulate and approve the rules, which resulted in reducing effective enforcement of rules.

Actors' accountability in the PFM programme

Village Land Forest Reserves and Joint Forest Management policies in Tanzania state that Village Natural Resource Committees need to be upwardly accountable to district councils and downwardly accountable to constituents through village councils (URT, 2007.p. 21, URT, 2002, s. 33.p.35 and URT, 2013.p.26). It was apparent that during the process of PFM policy formulation most of the respondents wanted members of the local institution in CBFM to be elected through village assembly and only be downwardly accountable to their constituents through the village council. This would allow the local institution in CBFM not to work outside the village government structure, because local communities in CBFM are the owners of the forest. However, some civil servants from the Forestry and Beekeeping Division wanted committee members in CBFM and JFM to only be upwardly accountable to the owner of the forest, which is central or local government. However, the staff member from SIDA did not consider this suggestion. A few staff from the Forestry and Beekeeping Division suggested that VEC in both CBFM and JFM should be elected through village assembly and be

downwardly accountable to their constituents and upwardly to the government, this prevailed in PFM policy. However, the staff member from SIDA did not consider the suggestion of local communities to be only upwardly accountable to the government in both CBFM and JFM.

In order to achieve devolution, powers and rights should be devolved to elected members of local institutions who will be downwardly accountable to the local communities and upwardly to government (Agrawal and Ribot 1999). When local institutions are not accountable to their constituents, devolution is not achieved, and elite capture is likely (Baruah, 2017). Downward accountability is very important in devolution since it empowers other individuals in the community (Agrawal and Ribot 1999). It was apparent that the process of PFM policy formulation mainly focused on creating awareness among VEC members on how they will be accountable and inadequately considered the mechanisms that would facilitate the accountability of VEC to residents. This has resulted in formulation of weak policy that lacks clear and transparent benefit-sharing mechanisms to ensure equity, clearly defined schedules of committee elections, procedures for handling forest finance and public audit sessions. These are fundamental prerequisites for achieving accountability yet are lacking in the PFM policy. The PFM policy also lacks clear commitments for improving awareness with regard to election calendars for committee members that would ensure greater inclusion of residents in elections, so as to enhance downward accountability and reduce elite dominance in the approach (Behera and Engel, 2006; Persson and Prowse, 2017). This lack of knowledge among residents with regard to committee election schedules has resulted in low participation of residents in VEC election, hence most of the VEC members are appointed by committee leaders rather than being elected (see chapter 3). This may have limited VEC accountability as VEC members may be more likely to represent the interests of those who appoint them than their constituents (see e.g. Chinangwa et al., 2016; Liu et al., 2018). This situation has constrained the effective implementation of PFM.

4.3.3 Inclusion and representation of stakeholders in PFM policy-making

Forestry embraces a lot of cross cutting issues, which calls for wide representation of stakeholders in the process, from formalizing the approach in policy and Acts to formulation of guidelines. Most of the respondents reported that the process of formalizing PFM in the

Forest Policy and Act did not adequately involve stakeholders from different sectors affected directly or indirectly by PFM policy. Respondents reported that more stakeholders were involved during PFM guideline formulation but the process was top-down, because the idea was brought to other stakeholders by staff from the Forestry and Beekeeping Division. Staff from the Forestry and Beekeeping Division tried to influence people to understand the idea instead of collecting opinions from stakeholders. Stakeholders involved were from the Forestry and Beekeeping Division, Tanzania Forestry Research Institute, Sokoine University of Agriculture, Tanzania Tree Seeds Agency, Vice president's office, Ministry of Energy, Ministry of Agriculture (Wildlife and Tourism Division), National Environment Management Council, Development Partners, President's Office Regional Administration and Local Government.

The process of PFM policy formulation mainly involved forest staff from the PFM pilot projects area. Most of the respondents reported that Tanzania Forestry Research Institute and Sokoine University of Agriculture were given the opportunity to conduct some studies during PFM policy formulation to see how PFM policy can work in Tanzania. However, when I conducted an interview with a respondent from one of these institutions, I learned that the consultancy had come late in 2005 when PFM policy was at the implementation stage and already formalized in the National Forest Policy and Act. It was apparent that there was no incorporation of the inputs from the consultancy into the PFM policy and no review of the national Forest Policy and Act to incorporate the consultancy inputs. Therefore, no study on forest governance was conducted during the process of PFM policy formulation, to find out which model of governance structure would work in Tanzania. This situation resulted in formulation of weak policy that does not support upward accountability of the local institutions and District Forest Officers to Director of Forest and Beekeeping Division, because the current organisation structure does not support this form of accountability. Hence, upward accountability of forest committee and DFOs to the Director of FBD is not evident and the Director of FBD has no power to question them. This resulted in reluctance of committee leaders to manage forests according to what has been stipulated in the PFM policy. This led to local elites dominating in both decision-making and benefit-sharing (Lund and Saito-Jensen, 2013; Luintel et al., 2017). Inadequate stakeholder participation in PFM policy formulation is not unique for Tanzania since similar findings have been noted in public policy making in Ethiopia and Australia (Potts et al., 2016; Ariti et al., 2019). Johansson, (2016); Jann

(2007); Mitchell et al. (1997); Rondinelli et al.(1983) and (1989) have argued that policy will be more acceptable if there is greater stakeholder awareness and engagement during policy formulation, because stakeholders may understand the rationale for the approach and value the policy as it consider their interests.

4.3.4 Inclusion and representation of common citizens and local people in PFM policy-making

The senior officer from the Forest and Beekeeping Division reported that the process of PFM policy formulation involved eight stages. The process started with the formulation of a task force, followed by collection of different experience from e.g. other countries, studies and pilot projects. Then collection of different stakeholder's opinion followed by formulation of draft policy. Thereafter the draft policy was submitted to the Management of the Ministry of Natural Resources and Tourism. Then the draft policy was submitted to the Cabinet secretariat and then to the Interministerial Technical Committee. Finally, the draft policy was submitted to Minister Cabinet for approval. The senior officer from the Forest and Beekeeping Division reported that local communities were involved at stage 3 and 4 to give their opinions through meetings and workshops. However due to a shortage of resources, not all targeted local communities in Tanzania were involved, and in the workshops local communities were represented by village leaders. It is apparent that that there was no broader participation of local communities during the process of PFM policy formulation. A few interviewees admitted that participation of local communities in the process of PFM policy formulation occurred when the task force team had already developed the draft policy. Local communities participated in some meetings and workshops of PFM policy formulation. However, their participation was through representatives who were involved in some workshops held at national level. Their participation was in terms of giving opinions on an already developed draft of the policy, but not during the decision-making process on what should be incorporated in the PFM policy. In addition, the local communities involved were those who were involved in PFM pilot projects supported by SIDA, who were selected because of their high nature-value forests rather than gaining a general overview of how PFM could work in a range of forest types.

Other respondents reported that local communities were not involved when the strategy was formalised in the National Forest Policy and Act. The respondents stated further that local communities were involved during PFM guidelines formulation when Forestry and Beekeeping Division already had a draft of the PFM guidelines.

The inclusion and representation of common citizens and local people during PFM policy formulation was not adequate and their inputs were not always considered in PFM policy. Nevertheless, their partial involvement had more advantages than disadvantages. Respondents acknowledged that local communities involved were supportive and provided valuable inputs to PFM policy, based on their indigenous knowledge that helped to shape the policy to fit the context of local people. Involving local communities in the process of PFM policy formulation created more awareness about PFM among local communities and motivated the local communities to accept and effectively implement the PFM approach. Since local communities felt like part of the decision-making process and government valued them; it was easier for the government to build trust with local communities where pilot projects were established rather than where there was no pilot project. However, these benefits are not necessarily easily scalable, unless all target communities could be involved in the process of policy formulation.

“Local communities in PFM pilot project areas are more effectively implementing the PFM policy than local communities in areas where there was no PFM pilot project in the country. This is because they were involved in the process of PFM policy formulation and this created awareness and motivation to participate in PFM policy implementation” (Senior officer from Forestry and Beekeeping Division, R1).

However, there were disadvantages of involving local communities in the PFM policy formulation process.

A civil servant from the Forestry and Beekeeping Division believed that involving local communities raised expectations in local communities, as local communities involved expected to benefit a lot from the approach, and they could lose interest and level of participation if their expectation would not been met during implementation. A civil servant from Forestry and Beekeeping Division acknowledged that marginalised groups were

marginalised themselves during the process of PFM policy formulation. They thought that they were not part of the process. Even when experts told them to participate, they did not show any interest.

The process of policy making inadequately considered the inclusion of local communities. The few local people involved were unrepresentative of the communities and might have been those who were disproportionately wealthy. This situation may have contributed to policy makers giving inadequate consideration to the poorest individuals in the policy design and assuming homogeneity of local communities, leading to a lack of representation of the poorest in the forest committees. This attributed to weak PFM policy design that failed to achieve full devolution, hence leading to failure of the PFM policy to achieve its empowerment goal during implementation. Effective public policy cannot be achieved when the process of policy development involves local community representatives who were not drawn proportionately from all socio-economic strata of society (see e.g. Dye and Zeigler, 1996; Anderson, 2003). This may lead to policy biased against the interests of poor and marginalised groups (see e.g. Schattschneider, 1960). “The flaw in the pluralist heaven is that the heavenly chorus sings with a strong upper-class accent” (Schattschneider 1960). The socio-economic strata that is not represented in the policy development process will have little voice in policy making process and thus their values, interests as well as preferences are likely to be slighted therein (see e.g. Isaak, 1988). Hence, effective involvement of common citizens and local people in policy decisions is necessary for achieving policy objectives during implementation. Ariti et al., (2018) argue that active involvement of common citizens in policy making may enhance sense of ownership, voluntary participation during implementation, and allow them to set procedures that are within their local context and not costly to the poorest and marginalised groups (Ribot, 2004; Chhetri et al., 2012; Kumar et al., 2015). This may lead to effective policy design that helps avoid marginalization of minorities (Lund and Treue, 2008; Persson and Prowse, 2017; Rai et al., 2017). Study by Kuehn, 2018 argue that development of effective public policy require clear procedural solutions and participatory mechanisms that allow meaningful and effective engagement of all marginalised groups affected by the policy and ensuring that they agree on critical policy issues.

4.3.4 Challenges to PFM policy formulation

Interviewees identified a number of difficulties faced during PFM policy formulation. One of the greatest challenges identified by participants was reluctance of some individuals within the forest sector to devolve power to local communities, assuming that they will not be able to take care of the forest resources. To resolve this, a task force formed by civil servants from Forestry and Beekeeping Division took reluctant individuals to the PFM pilot project to see how the approach was working. This reluctance may nevertheless have limited the power transferred to local communities and created a gap between forest officials and local communities upon implementation. This has increased the barriers to participation, and diluted the reward.

The issue of mistrust between local communities and government was among the challenges discussed by respondents. Local communities did not trust that the government was genuine about the need to involve them in forest management or whether the government wanted to take their village land through the PFM approach. They were unwilling to believe the government's promises as they believed that government is the one responsible for management of the forests and not local communities. Experts from the Forest and Beekeeping Division conducted a number of meetings with local communities to ensure that the strategy was clear to each individual at local level. This mutual distrust between local communities and government often led civil servants to identify and select approaches without adequately consulting local communities, this may reduce the acceptability of the PFM policy and lead local communities to undermine the approach during implementation as they may feel that the approach is not within their interest (see e.g. Rondinelli et al., 1989).

Respondents identified that there was reluctance from the state president and the director of Forest and Beekeeping Division in 1996 to allow PFM to be introduced in Tanzania. Then, in 1996, that Director was fired due to misuse of public property and the person appointed to take over the position understood the direction that SIDA was keen to go with regard to PFM.

“The political environment was not supportive... and the state president actually tried to say we would never let that woman (the staff member from SIDA) back in Tanzania. There were several problems, one he thought the whole idea was ridiculous that the local community

could manage the forest and because the whole idea had come out of the SIDA” (Staff member from SIDA, R11).

Reluctance of the key personnel in the government limited the amount of power devolved to local communities, resulting in formulation of weak policy that inadequately considered the need for creating PFM awareness of local communities. As a result implementation of PFM may be characterised by inequalities, lack of downward and upward accountability of forest committee leaders, a low rate of local communities engagement in PFM activities e.g. committee elections, formal village assemblies, PFM training, formulation and first-approval of by-laws (Dressler et al., 2010; Adhikari, 2014; Mohammed et al., 2017; Mollick et al., 2018). Effective formulation and implementation of public policy depends on the political acceptance of the policy (Reed, 2008).

Time constraints to undertake the process of formulating the PFM policy were among the challenges faced during the PFM policy development process. The senior staff member from Forestry and Beekeeping Division (R1) described that the review process of the forest policy took only six months, January –June 1997, because the policy review was long overdue and a new/revised forest policy was urgently required. Within this time, stakeholders incorporated all issues, including PFM. The consultant and staff from Forestry and Beekeeping Division were forced to work as hard as possible to meet the deadline. This may have contributed to inadequate consideration of wider stakeholder involvement in PFM policy making and to considering only local communities from PFM pilot projects who were selected because of their high nature-value forests. Hence the policy making process failed to gaining a general overview of how PFM could work in a range of forest types. This resulted in formulation of weak PFM policy with limited consideration of local context, hence the policy excludes the majority especially poorest from benefiting from PFM (Lund and Treue, 2008; Vyamana, 2009; Rai et al., 2017).

There was inadequate funds to support the process (e.g. paying allowances to forest officials), that made the process fail to involve all the stakeholders as needed. While the challenge over policy development in terms of financial resources to support the process is significant, it is not unusual, this challenge is similar to challenge identified in other policy research (see e.g. Kuehn, 2018). Respondents felt that adequate resources e.g. funding are critical for achieving effective PFM policy design.

4.4 Conclusions

In this chapter, I have assessed how Tanzania's PFM policy was developed, to understand why and how the failings identified in policy design and implementation came about. I found that foreign donors and NGOs seemed to bring the whole idea of PFM and played a greater part in the process of PFM policy formulation. I also found that the process of PFM policy formulation was characterised by a lack of wider stakeholder engagement, reluctance of forest officials to support PFM policy, mistrust between local communities and government, limited time and funds. It was apparent that the process of PFM policy formulation neglected broader stakeholder participation in formalizing PFM into the National Forest Policy and Act. Local communities were inadequately involved and not representative of all socio-economic strata of the society. All these could have attributed to weak policy design that failed to meet key criteria for meaningful devolution. Successful policy-making requires adequate participation of the public leading to broad acceptance of the policy and an enhanced sense of ownership upon implementation, as well as political acceptance (e.g. Reinikainen et al. 2016; Ariti et al. 2018). However, key personnel in the government actively disagreed with the rationale for PFM. This led to PFM policy being weakened at the design stage, and then further stymied during implementation, with government reluctant to devolve appropriate powers to local communities.

Policy will be more acceptable if there is greater stakeholder awareness and engagement during policy formulation, the process of policy making can be improved by making it more inclusive and improving communication and coordination among stakeholders. Therefore, government must put in place arrangements that will allow wider and effective engagement of all stakeholders to at least some of the critical stages for PFM policy formulation. This may help preferences, interests and values of the majority, especially minorities to be adequately valued and considered in the policy (Rondinelli et al., 1989), this could also greatly enhance the sense of ownership and acceptability of the policy (Ariti et al., 2019). Greater inclusion and representation of common citizens and local people in policy making may be achieved by drawing participants proportionately from the all socio-economic strata of society and engaging them in almost all the stages of policy formulation (see e.g. Anderson, 2003; Dye and Zeigler, 1996). Government could explore effective and cost-efficient options for wider consultation to tie together all matters from political parties, interest groups, legislative

procedures, presidential commitments and public opinion to achieve effective policy design. The process of formulating the PFM policy should allocate a realistic timeframe because forestry in general embraces a lot of cross cutting issues that calls for effective and wide representation of stakeholders in the process of formulating PFM policy and forest review at large (see. e.g. Rondinelli et al., 1983; Ritter, 2009; Secker, 1993).

Chapter 5. DOES THE IMPLEMENTATION OF PARTICIPATORY FOREST MANAGEMENT POLICY AT NATIONAL, DISTRICT AND LOCAL LEVELS UNDERMINE THE ACHIEVEMENT OF DEVOLUTION?

ABSTRACT

Previous work notes several shortcomings of PFM, often focusing at village level but there is limited research on the process of PFM policy implementation at national and district as well as village levels, and how that contributes to PFM failure. I conducted 55 key informant interviews with stakeholders involved in implementing PFM policy at national, district and village levels in Tanzania. I also surveyed 227 individuals, in two case study villages adjacent to SULEDO Village Land Forest Reserve (Kiteto District), to answer these research questions: (a) How was PFM policy implemented at the national and district levels and was implementation in accordance with PFM policy? (b) Which constraints on achieving devolution are attributable to implementation (as opposed to policy design or community level dynamics)? (c) Which constraints on achieving devolution are attributable to community level dynamics? (d) How do other policies or programmes constrain PFM policy implementation? I found that constraints to PFM implementation arose from a lack of capacity to support the approach, in terms of financial, human, and physical resources, as well as policy knowledge of local communities and forest staff. Institutional barriers due to weak policy design have weakened coordination and communication among stakeholders, reducing upward accountability. I also found reluctance of committee leaders to involve the residents in PFM activities. In addition, REDD+ policy (Reducing emissions from deforestation and forest degradation) has weakened the existing institutional framework for implementing PFM policy. Successful implementation of PFM has been dependent on donor and NGO support, which has not been sustained. Despite initial promise and good intentions, the success of PFM has been limited by existing power structures both nationally and internationally and by the very lack of capacity it was supposed to address.

5.1 Introduction

In Tanzania, PFM has been implemented since the 1990s (URT, 2012), supported by the Forest Policy of 1998 and Forest Act of 2002 (URT, 1998 and 2002). Participatory Forest Management in Tanzania entails two pillars: Community Based Forest Management (CBFM) that takes place on village land and Joint Forest Management (JFM), which takes place on land owned by either central or local government. In CBFM, the village council owns and manages the forest through a Village Natural Resource Committee. Members in the committee are elected by all villagers through a village assembly (URT 2002 and 2007). In JFM local communities share management responsibilities with the government but the forest remains owned by the government (URT 2002 and URT, 2013). Mustalahti and Lund, (2009) have shown that in PFM cases with valuable natural capital (e.g *Dalbergia melanoxylon* and *Pterocarpus angolensis* species), the process of implementation was pushed by NGOs and donor-funded projects at a stage where the benefit-sharing regime from the PFM was not yet settled. By 2012, around 7.7 million hectares of forests and more than 2,000 villages were involved in PFM (URT 2012). Despite this scaling up of PFM in Tanzania, studies have documented both positive and negative impacts of PFM (Persha and Blomley, 2009; Arts and Babili, 2012; Lund et al. 2018), which has led to important debates. Another stream of literature argues that PFM policies have failed to materialize on the ground because PFM benefits are concentrated on an elite (Jacob and Brockington, 2017). Unequal access to forest resources and benefits is common across several studies (Iversen et al., 2006; Thoms, 2008; Luintel et al., 2017; Das, 2019), since powers devolved to local communities have been monopolised by local elites (Dyzenhaus, 2017). As a result, the implementation of PFM has excluded the poorest and marginalised individuals from accessing the valuable forest resources (e.g. timber) (Lamichhane and Parajuli, 2014; Rai et al., 2017). Hobley, (2007) argued that inequalities in benefit sharing in PFM is common due to differential powers, assets, and capacities of local communities.

Reviewing a range of international cases, Baynes et al. (2015) reported constraints to PFM and highlighted that implementation of PFM lacks consideration of tree tenure security, long term capacity building as well as appreciation of the complexity and interaction of various influences, suggesting serious shortfalls in achieving PFM empowerment goals. Other analyses detail that PFM is undermined by lack of policy knowledge by local communities (Liu and Innes, 2015; Adams, 2018), which is contributed by lack of sustainable financial resources

(Dyzenhaus, 2017), due to unwillingness of political leaders to implement the PFM approach (Liu and Innes, 2015). This situation has resulted in inadequate enforcement of the management plans (Mohammed et al. 2017; Etongo et al., 2018). Studies conducted to date mainly focus on PFM implementation at village/local level. Robust empirical evaluation of to what extent PFM implementation at national and district levels contributes to the PFM policy failure is limited. This is the only forest governance study I know that investigates the implementation of PFM policy at different levels. This study has significant implications for PFM policy, because it contributes to the body of knowledge on what explains the mismatch between PFM policy objectives and outcomes. This study focusses on Community Based Forest Management in Tanzania.

I build on the previous literature by analysing to what extent did the implementation of PFM policy at the national, district and local levels achieve or frustrate devolution to local communities, by comparing observed outcomes to stated policy objectives and the decentralisation framework developed by Agrawal and Ribot (1999). Both qualitative and quantitative approaches were employed to answer these research questions; (a) How was PFM policy implemented at the national and district levels and was the implementation in accordance with PFM policy? (b) Which constraints on achieving devolution are attributable to implementation (as opposed to policy design or community level dynamics)? (c) Which constraints on achieving devolution are attributable to community level dynamics (d) How other policies or programmes constrain PFM policy implementation.

5.2 Methods

5.2.1 Sampling design

Stratified random sampling was employed to select 10 districts. Districts were stratified by management objectives, vegetation type and donor/NGO support. Thereafter, the percentage of districts was calculated in each sub-category. For more details, see Table 5.1. In each district three forest officials were interviewed (Natural Resource Officer, District Forest Officer⁷ and District Forest Manager⁸).

5.2.2 Data collection and analysis

I conducted semi-structured face-to-face interviews with 45 key informants at national, districts and village levels. At national level, the interviews were conducted with senior forest officials and representatives of Non-Governmental Organisations implementing PFM policy. In each district, the interviews were conducted with three forest officials. Before the actual interview, I pre-tested the interview guide (Appendix 31) with my colleagues and then revised the guide based on the responses received. Prior to interview, the purpose of the research was explained and the interviewee was asked for his/her consent (Appendices 9, 10, 11, 12). The interviews were conducted in Swahili and lasted for around one hour for each respondent. Notes were taken immediately after each interview. Interviews were audio recorded and transcribed in Swahili for thematic analysis, supported by additional notes taken during the interviews (Braun and Clarke, 2013). Analysis was undertaken using NVivo10 software, applying deductive codes drawn from Agrawal and Ribot's (1999) conceptual framework. I also considered new themes emerging from the data analysis other than the Agrawal and Ribot framework, because there are wider factors that come into play, which might not fit so neatly into predetermined conceptual framework. For instance, broad codes from the framework did not provide enough detail to understand why PFM policy has/has not happened as intended. Themes considered in the analysis includes representativeness of actors in the PFM programme, empowerment of residents and local institutions in the PFM

⁷ District Forest Officer, responsible to the relevant district council for district and village forestry matters (URT, 2002 and 2013)

⁸ District Forest Manager reporting to Tanzania Forest Service centrally with responsibility for management of forests under central government ownership

programme and constraints on PFM implementation. Each theme is discussed under sub-headings in the results and discussion section.

I also surveyed 227 individuals, in two case study villages adjacent to SULEDO Village Land Forest Reserve (Kiteto District), conducted six focus group discussions and 10 key informant interviews. For detailed methods for qualitative data collection as well as quantitative data collection and analysis at village level see chapter 3. In chapter 3, I assessed whether PFM has achieved devolution by comparing observed outcomes to stated policy objectives and the decentralization framework developed by Agrawal and Ribot, (1999). In this chapter, I took what I found in chapter 3 further to understand why PFM policy has not fully achieved devolution, specifically looking at the importance of national, district and community level dynamics.

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Table 5.1: Number of districts selected in each category for this study

Objectives	Districts	Forest Type	Districts with miombo/ other vegetation type	NGOs/Donors support	Number of Districts with/without support	Proportion of Districts with/without support	Proportion sample of districts in each category	Actual number of districts surveyed
Conservation and production	27 (53)	Miombo	19(37)	Yes	5	0.098	1.0	1
				No	14	0.275	2.7	3
				Yes	3	0.059	0.6	1
				No	5	0.098	1.0	1
Protection	5(10)	Miombo	3(6)	Yes	0	0.000	0.0	0
				No	3	0.059	0.6	1
				Yes	2	0.039	0.4	0
				No	0	0.000	0.0	0
Protection, Conservation and production	19(37)	Miombo	8(16)	Yes	3	0.059	0.6	0
				No	5	0.098	1.0	1
				Yes	5	0.098	1.0	1
				No	6	0.118	1.2	1
Total	51						10	

Note; Numbers in bracket are percentages

5.3 Results and Discussion

5.3.1 Status of PFM implementation at the national and district levels

Representativeness of actors in the PFM programme

Before PFM, forest staff had a role as policemen in forest management (URT, 2002), but after PFM's introduction, forest staff's role changed to technical adviser, liaison, mediator, coordinator and environmental watchdog (URT 2002 and 2007). PFM requires forest staff to assume facilitation roles e.g. encouraging, supporting and guiding the community from CBFM establishment to implementation stage (URT 2007). Because forest staff are facilitators of the PFM approach it is necessary for them to have adequate knowledge of PFM and the capacity to implement the approach effectively. However, I found that the implementation of PFM by most of the Natural Resource Officers, Forest Managers and Forest officers at district level was not in accordance with the nationally set PFM policy and unpromising in achieving devolution. For example, Community Based Forest Management policy states that the village assembly should elect the Village Natural Resources Committee members and the committee should be made up of 12 or more people, at least one third of the Village Environmental Committee members must be women (URT, 2007). However, most of the participants were not aware of the required committee composition as well as how committee members should assume their positions. Most of these officers reported that committee members are appointed by village councils and approved by village assembly and the number of committee members and women reported was lower than the one stated in the PFM policy (see Appendix 32). I also found that all respondents ignored the poorest individuals in PFM policy implementation, which is in line with the PFM policy. This contradicts aspirations for representativeness and local empowerment in PFM. A civil servant from a district council put it this way:

"Wealth status is not an important issue to consider in PFM policy implementation. Since there is no relationship between an individual's wealth status and PFM policy implementation, what matters is an individual to be fit physically and mentally" (District Forest Officer, R18).

It was apparent that respondents in the districts that are supported/ had been supported by donors and NGOs, implemented PFM according to PFM policies while in some districts with

no donor or NGOs support, respondents lack PFM knowledge because in these districts PFM exist in theory but not in practice.

“I can say that in our districts CBFM is currently not implemented and even Village Environmental Committees no longer exist” (District Forest Officer, R12).

“I have never met with the Village Environmental Committees since I have been to this district for almost two years, therefore I’m not even aware of how the committee members assume their position and to whom are they accountable” (District Forest Manager from Tanzania Forest Service,R13).

PFM policy requires forest staff to keep an eye on progress and problems of PFM, e.g. knowing when to support, when to step back, and when to intervene if the community is not meeting the PFM policy commitments (URT 2002 and 2007). However, I found that forest staff lack awareness of requirements for VEC number and composition in CBFM because they have not been trained on how to implement the approach, and this is due to reluctance of the government to allocate financial resources to the approach implementation. Some of the staff were just ignoring and refusing to engage with local communities because they disagree with aspects of PFM policy (Appendix 32). This may have reduced the willingness of forest staff to provide technical support to local communities hence creating a gap between forest staff and local communities, ultimately falling short of achieving devolution of power through PFM. Liu and Innes, (2015) in China and Hermansson, (2019) in Turkey have also argued that civil servants opposed the decentralization arrangements and were unwilling to engage with local communities because the approach threatened their powers over resource management and utilization

Empowerment of residents and local institutions in the PFM programme

The Forest Act empowers local communities in CBFM to retain 100% of revenue from the sale of forest products; however, they may choose to share a portion with the district in return for services rendered. The percentage to be shared with the district is set by the villages and not the district (URT, 2002 and 2007), but I found that local communities were not aware if the policy require them to propose the percentage to be shared and not the district. I found there

was contradicting responses between respondents from the same district in terms of who set the percentage to be shared with the district, and in most of the districts, the percentage to be shared was proposed by the district councils. I also found that local communities lack capacity of whether the policy gave them power to refuse the percentage if they are not happy. This situation may limit the negotiation power and sense of ownership to local communities, leading to some ambiguity about whether there was a genuinely free negotiation between villages and district councils. One of the respondents stated that the percentage that local communities needed to share with the district councils is standard nation-wide, but there is no government document or any evidence at national level to verify this.

“Local communities share with the district council 25% of the of revenue from sale of forest products in Community Based Forest Management and this percentage is standard and has been set nationwide to all forests under CBFM arrangements” (District Natural Resources Officer, R32).

This situation indicates that some forest officials ignore PFM policy. Hence, this may reduce the decision-making power and sense of ownership of local communities as well as undermining the approach. If forest officials depend on revenue generated from PFM for them to perform their responsibilities, this may affect the sustainability of the approach as well as the forests, since PFM implementation of itself does not guarantee that larger amounts of forest revenue will be generated.

There is active involvement of District Forest Officers in utilizing CBFM revenue in some districts, since power to utilize any revenue from sale of forest products seemed to be taken by district councils. In these districts, local communities are not allowed to use any funds from CBFM without the approval of the District Forest Officer. This situation comprises local communities' utilization rights and may tempt the councils to use revenue which they should not and lead to local communities not being able to use any of this revenue themselves. This contradicts not only CBFM policy but also the requirements for devolution. A civil servant from a district council put it in this way;

“Local communities must get approval from DFOs [District Forest Officers] of any CBFM funds that they want to withdraw from their account. We decided to do this in our district in order to ensure that the Village Natural Resources Committees are not misusing the CBFM revenue” (District Forest Officer, R33).

It could be argued that, since local communities retain ownership and utilization rights of the forest, District Forest Officers involvement in the CBFM approach is largely to facilitate the implementation of the approach. District Forest Offices are supposed to assume a technical support and advisory role (e.g. URT 2007), as their active involvement in the approach would limit the amount of utilisation rights, level of ownership and influence that local communities may exercise upon approach implementation (Chinangwa et al., 2016; Kedir et al., 2018).

Most of the Forest Managers I interviewed were not aware of the CBFM policy. In one of the study districts, I found that the District Forest Officers and local communities are in battle with Forest Manager because the Forest Manager wanted the local communities to request gazette⁹ of their Village Land Forest Reserve for it to be officially recognised. Otherwise, no transport permits of any of their forest products will be granted. This is against the CBFM policy, since the Forest Act states that a Village Land Forest Reserve shall be either a declared Village Land Forest Reserve; or a gazetted village land forest reserve (URT, 2002). Gazetting a Village Land Forest Reserve is optional and not compulsory as in real terms it does not give any more or less powers or security of tenure (URT, 2002 and 2007). The District Forest Manager put it in this way;

“All Village Land Forest Reserves must submit their management plan to the Director of Forestry and Beekeeping Division for approval. In addition, the forests must be gazetted for them to be officially recognised as a Village Land Forest Reserve. Without doing this local communities owning these forests will not be able to exercise any power that CBFM policy devolves to them. ” (District Forest Manager from Tanzania Forest Service, R28).

⁹Gazette⁹ment is a public notification at the national level through announcement by the Minister in the Government Gazette that a forest has been reserved. Gazette⁹ment is voluntary for a VLFR, which may remain a Declared Reserve with same effect (URT 2002 and 2007).

Community Based Forest Management policy states clearly that District Forest Officers as facilitators will need to assist the elected members of the Village Environmental Committee to meet for the first time and to train them on the various aspects of forest management (URT, 2007). However, Village Environmental Committee members in districts that had donor/NGO support receive regular CBFM trainings while in districts that had no donor or NGOs support, CBFM training to VECs members depends on the availability of financial resources. Overall, in most of the study districts the effective implementation of CBFM no longer exists since the newly elected VECs members had never received any training, nor had their forest management plan ever been renewed. The officer from Forest and Beekeeping Division reported that;

“Provision of trainings to VECs depends on availability of financial resources but currently government has no resources to facilitate this” (Officer from Forest and Beekeeping Division, R2).

Many local institutions in PFM programmes have been reported to lack capacity (see e.g. Riggs et al., 2018; Coulibaly-Lingani et al., 2011). Limited training programmes for local institutions limit their power and capacity to deal effectively with programme activities as well as cross-sectoral issues. Similarly, Riggs et al. 2018 concluded that forest management in Indonesia suffers from a multitude of resource conflicts and many of these conflicts cannot be resolved at the local scale.

5.3.2 Conditions and factors affecting the implementation of Participatory Forest Management policy at district and national levels

Limited organisation structure at local government to support upward accountability

Participatory Forest Management policy requires District Forest Officers to gather and compile information from each village and make sure it is forwarded to the Director of Forestry and Beekeeping Division twice a year (URT, 2007). However, accountability of District Forest Officers to the Director of Forest and Beekeeping division is not evident, because District Forest Offices are under the President’s Office Regional Administration and Local Government where decisions about their job descriptions, promotion and salaries continued to be made (Figure 1.2 in chapter 1). It seems that the formulation of PFM policy did not take

into account existing local government organisation structure and practices. It falls short of achieving accountability goals in CBFM. The Director of Forestry and Beekeeping Division has the power to formulate PFM policy but the implementing authorities in local government are not accountable to the director with regard to PFM (see Figure 1.1 and 1.2 in chapter 1), and the Director has no power to question them. This has influenced the outcomes of CBFM efforts in achieving devolution.

“I’m supposed to receive PFM reports from District Forest Officers , however the District Forest Officers are not under central government, they are under local government, therefore District Forest Officers send their PFM reports to District Executive Director then the PFM report must go to President’s Office Regional Administration and Local Government, then to the Prime Minister. This organisation structure has been among the challenges because the same resource is managed under different systems or platforms. I am empowered to formulate legislation and regulations guiding all forests in Tanzania. However, the power to implement the policy is with Tanzania Forest Service and Local government. I felt that to overcome the challenge, forest resources must be centralised, if possible, all the forest resources and staff should be under one ministry, which is the Ministry of Natural Resources and Tourism. All forest staff should be accountable to the Chief Executive Officer. We were thinking that previously the state approach failed because the Division was concerned with many issues, but currently we have Tanzania Forest Service with adequate resources generated by the agency itself. Currently most of the illegal activities occur in district and village forests, because the districts claim to lack resources for forest management so if you combine this with the parallel system of forest management, it became very difficult to improve forest management” (Senior officer from Forestry and Beekeeping Division, R1).

The inability of local agencies and authorities to coordinate and integrate their activities with those of central government has led to compartmentalization and lack of complementarity. This has further weakened the administrative capacities of CBFM policy implementing institutions (See e.g. Nagendra and Ostrom, 2012), as they had no formal organisational structure that facilitated integration of national efforts at the local level. A growing body of literature demonstrates that successful decentralisation is achieved by strengthening cross-institutional communication and information sharing (see e.g. Nagendra and Ostrom 2012;

Sahide et al. 2015). Findings in this study support the notion that effective decentralisation requires the clear linking of institutions both vertically and horizontally to provide a meaningful hierarchy of services and to increase the quality and reliability of service delivery (see e.g. Lebel et al., 2006; Dyzenhaus, 2017; Riggs et al., 2018). Similarly Rondinelli et al. (1989); Baynes et al. (2015) argued that in the absence of decentralisation laws, regulations and directives that clearly outline the interaction and relationships among different levels of government and administration, the roles and duties of officials at each level, and their limitations and constraints, many decentralisation programmes will not achieve effective devolution.

Weak political commitment and financial support to CBFM

I also found weak political commitment of political leaders to facilitate and support CBFM activities, which constraints Community Based Forest Management policy in achieving devolution. This situation was also noted during PFM policy formulation since the key personnel in the government did not agree with introduction of the policy. Hence, this has limited the budget that government allocated to implement CBFM policy. All respondents reported that the PFM is not among the priority issue in Tanzania and therefore due to the lack of political will, no dedicated budget has been set aside at national and district levels to implement the approach.

“There is a lack of financial resources to implement PFM approach; this has been contributed by lack of political will to PFM from most of the leaders. Since where there is a political will financial constraints cannot be a big issue, as political leaders may be committed and give priority to the PFM by setting aside budget that will enhance the implementation of the CBFM approach” (Officer from Forestry and Beekeeping Division, R3).

Respondents reported that each year they submit the budget plan for implementing CBFM to their Directors but they have never received any funds from either central or local governments. The amount of financial resources allocated at national level as well as to the districts were just on paper, thus the government is not implementing the approved budget. Officer from Forestry and Beekeeping Division (R3) reported that in 2003 the willingness of the government to support CBFM financially declined completely - this was when foreign

donors and NGOs started to support the approach. Respondents reported that after donors brought their support for CBFM implementation, it was unfortunate because even the little financial resources provided by the government was terminated, and the component of supporting CBFM policy was no longer in the ministry budget. District councils implementing the approach with no donor or NGO support have difficulty in covering their basic operating expenses, purchasing equipment (e.g. cars), training their personnel on CBFM policy or providing technical assistance to local communities. The approach's implementation lacks a sustainable plan in terms of financial resources after donor support, this was noted by most respondents. In most of the forests under CBFM arrangement, the implementation of the approach ended immediately after the end of donor/NGO support. The approach was not implemented as a policy but rather as a project supported by donors.

Most of the forests under CBFM are managed with outdated forest management plans due to limited funds at district level, this makes it impossible for forest staff to facilitate the local communities in reviewing their CBFM plan. Even the percent of money that local communities who are implementing the approach pay to district councils for getting technical support from forest officials has been reallocated to other priority sectors (e.g. health, education and agriculture) other than forest. Limited financial resources cast serious doubt on the ability of local government authorities to perform effectively their responsibilities outlined in the CBFM policy, as well as contributing to weaknesses of VECs, turning them into empty skeletons.

“The big challenge that affects CBFM policy implementation is lack of financial resources. Our government has no financial capacity to implement the approach, hence this makes the implementation depend on donor support, therefore when the donor projects are phased out the approach implementation is also phased out. Most of the forests under CBFM arrangements, have not updated/reviewed their forest management plan for a long time. The forest sector is not given priority even the percent of money that is accrued from CBFM that local communities share with the district council are reallocated to priority sectors other than forest” (District Forest Officer, R33).

I also found that most of the political leaders at district, ward and village levels use the forest under CBFM during elections for campaigning, promising to allow villagers to access the forest freely and establish farms if they vote them into office. Some of the political leaders influence

or advise local communities to withdraw from CBFM policy implementation so that they can use the forest area for crop production.

Although the institutional framework for Participatory Forest Management exists, its implementation has been very slow, due to a lack of financial resources and bureaucratic reasons (McNeill et al. 2018), hence this contributes to failure of the CBFM policy to achieve the intended goals. Research indicates that successful implementation of decentralisation policies depends heavily on political factors. Strong political commitment and support must come from national leaders to set dedicated budgets for implementing agencies and lower levels of administration (e.g. Olsson et al., 2004; Dyzenhaus, 2017; Kairu et al., 2018; Fischer and Ali, 2019). This may then contribute to achieve devolution to local communities.

Lack of human resources and policy knowledge of forest staff and local communities

Successful implementation of CBFM is strongly influenced by adequate capacity of forest officials to coordinate their activities at national, district and village levels. However, I found that many forest staff at national and district levels as well as village leaders lack CBFM policy knowledge: this situation has been inhibiting successful implementation of CBFM policy. There was a shortage of trained forest staff and the vast majority of the skilled forest officials on CBFM policy were concentrated in districts supported by donors and NGOs. Some of the skilled staff at district and national level have retired. No training has been provided to new staff in districts that have no donor or NGO support. Even the top-level administrators at national and district levels had only minimal technical training. Management capacity of forest officials is lacking, leading them to continue to manage the decentralised forests with top down approach, hence increasingly an obstacle to CBFM policy implementation.

“The implementation of Community Based Forest Management depends on donor/NGO support. Since there is no CBFM training that has been given to forest staff as well as local communities that are managing forests without donor or NGOs support, there is no sustainable CBFM trainings to implementers due to lack of financial resources” (Senior officer from Forestry and Beekeeping Division, R1).

Village Executive Officers¹⁰ are responsible for ensuring that all policies including PFM at local level are implemented according to the standards specified in the policies, however I found that in villages that are implementing the CBFM without donor or NGOs support, no CBFM training has been provided to the village leaders. As a result, Village Executive Officers assume they have overall power over all resources at village level and continue to issue permits for forest products from CBFM, instead of the Village Environmental Committees. This has created conflicts and power struggles at village level hence undermining the CBFM policy.

“Most of the Village Executive Officers lack CBFM policy capacity. This affects the CBFM policy implementation, because they want to be the overall manager of forest resources at village level without knowing that there is Village Environmental Committee that has been empowered at village level to manage the forest hence this attributed to power struggles and affects the CBFM policy implementation. Village Leaders have not received any CBFM training since they have been in position except in a few areas where there is donor or NGO support. Sometimes Village Executive Officers after being trained they are transferred to villages with no CBFM approach and that village implementing CBFM policy gets another Village Executive Officer who lacks CBFM policy knowledge, this has been a big challenge affecting CBFM policy implementation” (District Forest Officer, R24).

I also found that most of the Village Environmental Committees and residents had never received any Community Based Forest Management policy training. (Steiner, (2008); Adams, (2018); Dyzenhaus (2017) argued that when the local institution is staffed with people who are poorly trained and educated to understand their roles, this may lead them to act outside their formal responsibilities and may undermine the capacity for accountability. In planning CBFM implementation, Tanzania’s policy states that, provisions must be made to local institutions as well as residents for creating awareness, strengthening leadership and administrative capacity (URT, 2007).

Low capacity from national to local levels may lead CBFM policy implementers to continue managing the decentralised forest with top-down decision making despite the need for a

¹⁰ Village executive officer is the secretary to the village council and its chief executive officer. Village executive officer is hired and fired by the District Executive Director and accountable to the District Executive Director (URT, 1982; Blomley and Iddi, 2009).

bottom-up approach (Baynes et al., 2015; Liu and Innes, 2017; Hermansson, 2019). Inadequate technical and managerial skills limit political influence of the local leaders. This have resulted in small clique of local people with the capacity to take over the implementation of CBFM for their own interest (Chapter 3). This situation may result in many of the local leaders as well as residents losing their commitment towards Community Forest Management implementation. The most urgent needs in implementing decentralisation policy are for personnel training in managerial and technical skills (Baynes et al. 2015; Ward et al., 2018). This is especially urgent at district and village levels. Martínez-Falero et al. (2018) came to similar conclusions: local authorities implementing the approach continue to have severe shortages of qualified personnel, and lack the management capacity to carry out the responsibilities and functions that has been transferred to them.

Conflict of interest and power struggles within forest sector

Another factor severely inhibiting the successful implementation of Community Based Forest Management policy has been the conflicts of interest/power struggles between Tanzania Forest Service¹¹ on one side and Forestry and the Beekeeping Division¹² and local communities on the other, because the Tanzania Forest Service opposed arrangements that threatened its power over forest management. The Forestry and Beekeeping Division supports local communities to implement CBFM according to what has been specified in the policy. However, Tanzania Forest Services Agency believed that local communities managing forests under CBFM with higher natural capital (e.g. large number of *Dalbergia melanoxylon* and *Pterocarpus angolensis species*) are not allowed to harvest their forests without an approval from Tanzania Forest Services Agency. This view is not in line with CBFM policy, since the policy empowers local communities with full utilization rights and decision making power (URT 2002 and 2007).

¹¹Tanzania Forest Service (TFS) is an Executive Agency under the Ministry of Natural Resources and Tourism, given the mandate for the management of national forest reserves (natural and plantations), bee reserves and forest and bee resources on general lands(URT, 2002; 2010)

¹² The Forest and Beekeeping Division is a division under the Ministry of Natural Resources and Tourism with the responsibilities of development of the forest policy, laws and regulations and overseeing their implementation in the forest sector (URT, 2002; 2010).

“Tanzania Forest Service wants to have the overall power of all forests, but according to the forest policy the overall management power of all forests in Tanzania is held by the Director of Forestry and Beekeeping Division. Most of the Tanzania Forest Service staff have been discouraging local communities instead of facilitating them and this has largely weakened the motivation of local communities toward implementation of Community Based Forest Management policy” (Officer from Forestry and Beekeeping Division, R2).

In some cases, there have been power struggles between Forestry and the Beekeeping Division on one side and Tanzania Forest Service and District councils on the other, because District Forest Managers and District Forest Officers have become reluctant to support local communities. This is due to many of the forests where CBFM were established were previously providing a lot of revenue to central and local government. After CBFM establishment in these forests, CBFM policy empowered local communities to retain all the revenue, hence central and local authorities lose power over the forest resources.

“Community Based Forest Management policy states clearly that District Forest Officers and District Forest Managers will facilitate local communities in CBFM establishment, but in reality it has been difficult for forest staff to facilitate local communities in CBFM implementation. The government left the facilitation and support role to donors and Non-Governmental Organisations. District Forest Officer s and District Forest Managers are thinking that once they facilitate the local communities to establish forests under CBFM, this will result in government losing some forest revenue in forests with CBFM arrangement. Hence this contributes to difficulties in implementing the PFM” (Senior officer from Tanzania Forest Conservation Group, R35).

The same situation was observed during PFM policy formulation (Chapter 4), where many forest officials did not accept the introduction of PFM policy, fearing to lose their forest revenue. This has led to further deficiencies in policy implementation and weakened motivation among forest staff to facilitate local communities to establish forests under CBFM arrangement. This situation has limited the scaling up of PFM in Tanzania because effectiveness in implementing CBFM policy depends largely on the willingness of central and local government officials to support local communities. This requires the presence of

appropriate officials' behavioural, attitudinal and cultural conditions towards CBFM policy implementation.

Fjeldstad et al. (2001); Kelsall, (2004); Lund, (2007); Mustalahti and Lund, (2009); Nelson and Agrawal, (2008) have observed the same situation in Tanzania and highlighted that government seems to be reluctant to facilitate and devolve utilisation rights to communities where the central and local government authorities stand to lose powers over financially valuable forest resources. If central government leaders are unwilling to facilitate and decentralise services to local communities despite clear policy, implementation of decentralisation policy will not be achieved (Sozen and Shaw, 2002; Ribot et al., 2006; Riggs et al., 2018). I found that forest staff were not trusting local communities, if they are capable towards their new role in forest management under PFM. Sozen and Shaw, (2002); Pollitt and Bouckaert, (2011); Liu and Innes, (2016) came to similar conclusions: Forest staff are reluctant to recognize that local communities can be the main actors as well as partners in forest resources management. This situation stems from limitations inherent in the process of the PFM policy formulation, because forest officials were not trusting that local communities would be able to manage well the forest and regarded them as sources forest illegal activities. Evidence in chapter 3 suggest that the opinion of these forest officials were right. This lack of trust of forest officials to local communities has led to further deficiencies downstream. Liu and Innes, (2015) argue that trust among implementing agencies is very crucial in achieving meaningful devolution, minimum level of trust and respect must be created between local communities and government officials for achieving effective PFM. Some other authors (Rondinelli, et al., 1989; Kartodihardjo et al., 2011) have also argue that willingness of central and lower-level government officials to become partners with local communities and accept their participation in forest management may contribute to effective PFM. This willingness of the government may create mutual recognition, trust and respect between forest officials and local communities that each part involved is capable of performing certain functions in various aspects of decision making, enforcement, financing and management of the decentralised forest resources. Hence, enhance the sense of ownership to local communities and contributes to achieving local empowerment goals in PFM.

5.3.3 Implementation of PFM at community level

Unwillingness of ZEC leaders to involve village residents in VEC member's election

Implementation of PFM has been hampered by a lack of democracy in choosing representative and accountable local institutions. Tanzania's policies require PFM to be managed by village level committees elected by all village members through a village assembly (the meeting of all adult members held at least four times a year), (URT, 1982, s.55.p.32). However, I found in Chapter 3 (Figure 3.3) that participation of residents and VEC members in the last VEC election was low. In this chapter, in the sampled SULEDO villages I found that 17% of residents and 68% of VEC members who did not participate in the last election reported that they did not participate in the election because they had never been given the opportunity or invited by ZEC leaders to participate in the election. In addition, 11% of residents and 1% of VEC members did not participate in the VEC election because they had never been given information about elections (Figure 5.1). Only 5% of residents and 11% of VEC members chose not to participate in the election.

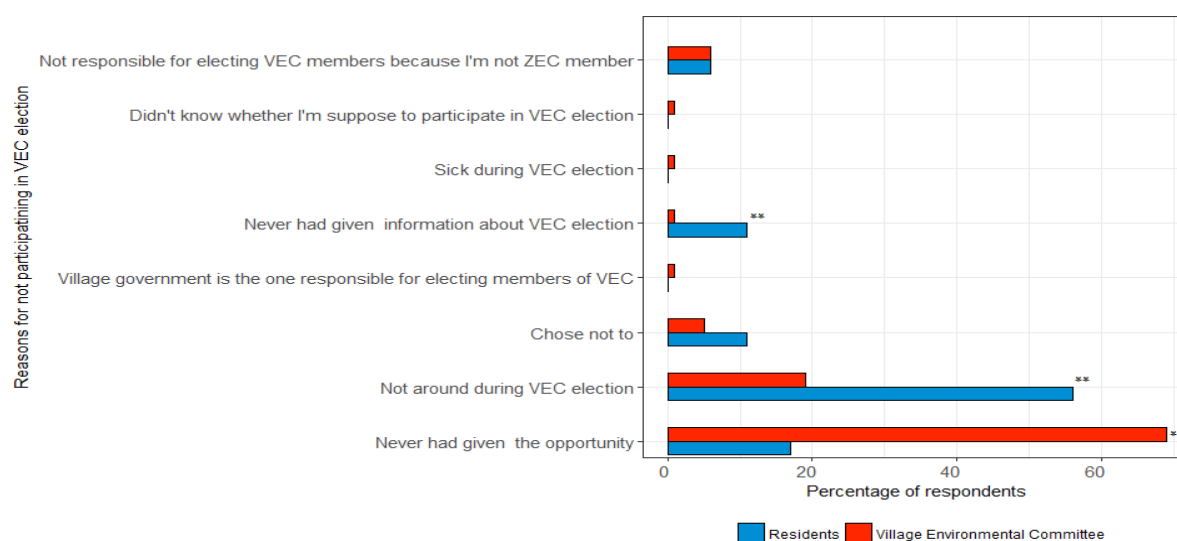


Figure 5. 1: Reasons for not participating in election; Note: chi –square test was used to compare residents and VEC responses, at 1% (***) and 5% (**) level of significance.

During focus group discussions with VEC members, women and the poorest individuals, I found that it is the ZEC leaders, rather than village government leaders, who organise elections for VEC members. PFM policy requires VEC members to be elected by all village members through a village assembly (the meeting of all adult members held at least four

times a year) but ZEC leaders tend to invite few residents to participate in the election. Participants in all the focus groups were willing to participate in VEC elections. However, Zonal and Village Environmental Committee leaders were reluctant to involve them by inviting and giving them information about the election. Participants in all three focus groups reported that ZEC leaders often do this purposely by inviting individuals who are well connected to committee leaders in order to maintain their position. Despite this situation, I found that representation of women in the VEC was according to the PFM policy. However, participation of residents including women in the last VEC election was low, hence compromises the VEC's representativeness as well as downward accountability.

"We are not involved and we had never been given information to attend a village assembly about VEC election. We used to see ZEC leaders appointing individuals who are well connected to them to be members of VEC, individuals who are not well connected with ZEC leaders had never been given an opportunity" (Focus Group Discussion with poorest individuals, FGD 3).

"We have never been involved in any VEC election, we normally see men involved but we women we had never been given such opportunity" (Focus Group Discussion with women, FGD 5).

This situation of ZEC leaders being reluctant to involve residents in VEC election compromises downward accountability of the VEC and strongly undermines the sustainability and effective implementation of the CBFM policy. The election of forest committee members by the majority is seen as the mechanism for sanctioning elected committee members as well as helping local communities to hold committee leaders accountable (Larson, 2005; Chomba et al. 2015), hence achieving meaningful devolution. Lack of democratically elected VEC members in CBFM approach led VECs members to implement the approach according to their own interests rather than the wider population. This situation is not unique to Tanzania, the same issue has been noted by Mollick et al. (2018) in Bangladesh and Kairu et al. (2018) in the global south generally, that local institutions were unwilling to follow the PFM rules and used their culture's way to implement the approach. This situation led members of the local institution in PFM to be appointed rather than be elected by, and representative of, all groups within the community, hence contradicting the aspiration of representativeness in PFM. Findings in this study support the notion that willingness and commitments of local

institutions as manifested in their cooperative behaviour and shared responsibility is among the critical elements in decentralisation policy implementation (Liu and Innes, 2015). Other authors have also argued that where local institutions lack willingness to follow the approach rules, then sharing of decentralisation benefits may often be based on favouritism (see e.g. Luintel et al., 2017). This situation may reduce participation level of local communities who missed the benefits.

Dominance of elites in CBFM activities

Tanzanian PFM policies require committee members to be trained in forest management skills with an understanding that these committee members will then train their constituents (URT, 1998.PS.3 and 5; URT, 2002.s.16.p. 17. S.33.p.35; URT, 2007. p.21). However, 92% of residents and 94% of VEC members felt they never had the opportunity to participate in any PFM training while few residents and VEC members chose not to participate (Figure 5.2). I found that implementation of CBFM policy is characterised by a reluctance of ZEC leaders to involve VEC members in CBFM trainings. Hence, this has resulted in a lack of support for local civic education that inhibits the ability of local communities and committee members to use effectively the powers and perform management responsibilities that have been devolved to them by central government.

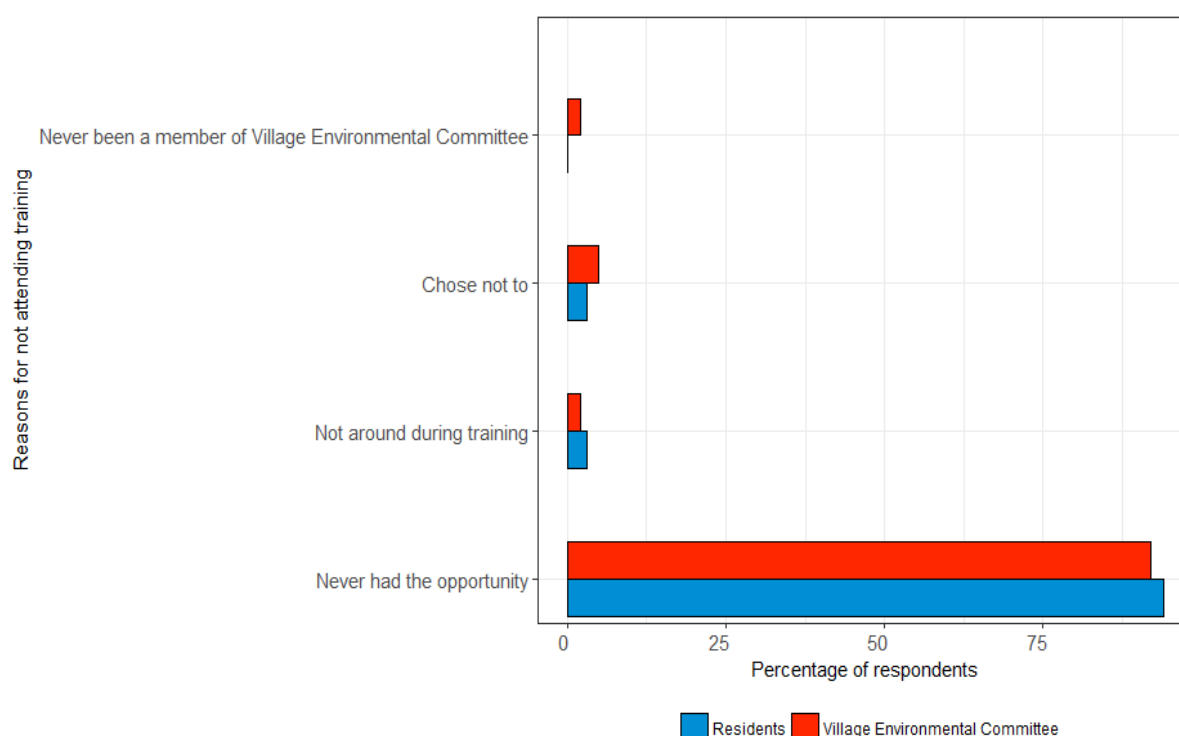


Figure 5.2: Reasons for not participating in PFM training Note: chi –square test was used to compare residents and VEC responses, at 1% (***) and 5% (**) level of significance.

During key informant interviews with village leaders and focus group discussion with VEC members, women and poorest individuals, it was noted that ZEC leaders involve individuals in PFM training based on nepotism, when PFM training comes at village level, the ZEC leaders tend to involve individuals who were not VEC members but were well connected to the ZEC leaders. Sometimes only ZEC leaders participated in training and failed to transfer the knowledge to residents and VEC members.

“This is my second time to be a member of the VEC, but I have seen there is discrimination from committee leaders to other members in terms of who should be given PFM trainings. Due to this situation trainings that are specifically for VEC members have been given to non- VEC members who are well connected to Zonal Environmental Committee leaders” (Focus Group Discussion with VEC members, FGD 1).

Unwillingness of ZEC leaders to involve residents in CBFM trainings has limited the policy knowledge of local communities with regard to who could get involved and how, hence reducing the amount of power that local communities may exercise during implementation. Kamoto et al. (2013); Liu and Innes, (2015); Persson and Prowse, (2017); Ward et al. (2018) ,

have argued that lack of inclusiveness in CBFM trainings may lead committee leaders to implement the approach in their own interest and capture all the benefits, hampering the approach in achieving its goal of empowerment. Baynes et al. (2015) concluded that most of the local communities in decentralisation lacked policy knowledge and suggested that responsibility and functions transferred to local authorities must be suited to their current or potential management capacities to achieve successful implementation of the approach.

I also found that ZEC leaders were reluctant to involve members of VEC, residents or village leaders in decision making or the formulation and first approval of by-laws, this has been affecting the successful implementation of CBFM policy. The ZEC chairperson is responsible for ensuring that all decisions made by the ZEC are communicated to residents through the VEC and the village government concerned (URT, 2011, s.3.p10). However, 71% of residents and 71% of VEC members felt ZEC leaders had never given them the opportunity to participate in village assemblies, while few residents and VEC members chose not to participate (Figure 5. 3).

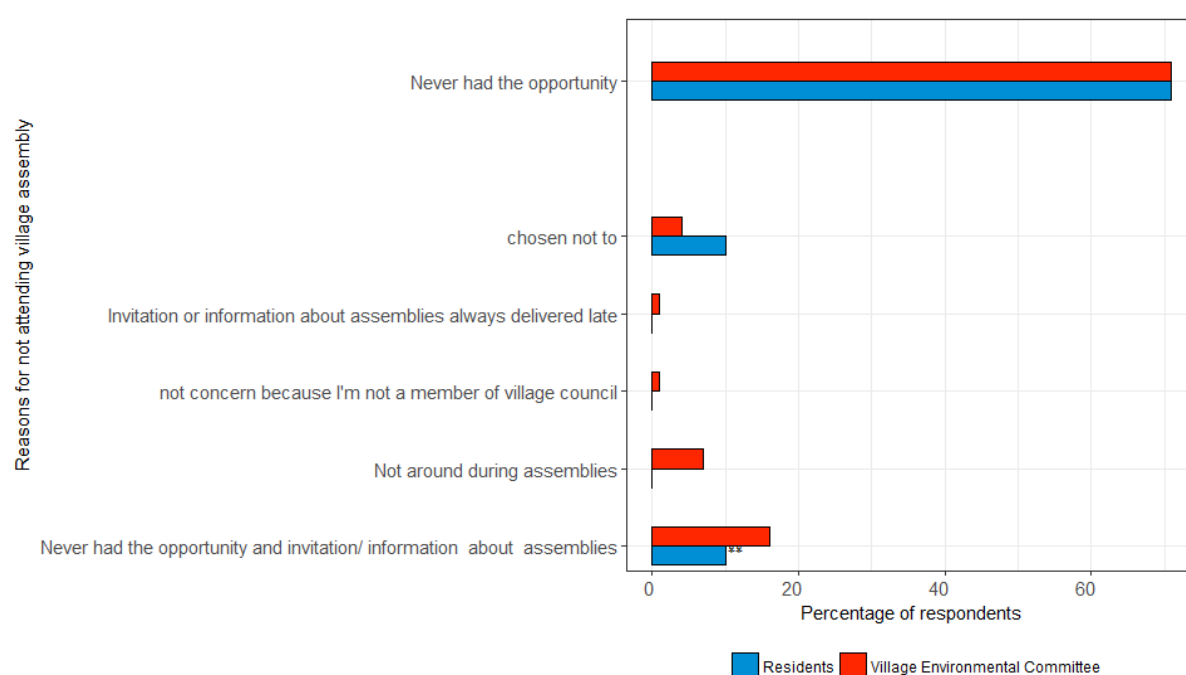


Figure 5.3: Reasons for not participating in village assembly; Note: chi –square test was used to compare residents and VEC responses, at 1% (***) and 5% (**) level of significance.

89% of residents and 67% of VEC reported that they did not participate in formulation of forest bylaws because they never had the opportunity from ZEC leaders (Figure 5.4).

Reluctance of ZEC leaders to involve residents and VEC members in rules formulation may reduce the sense of ownership among residents as well as the amount of decision making power to local communities hence undermine effective implementation of PFM (Chinangwa et al. 2016; Chomba et al. 2015).

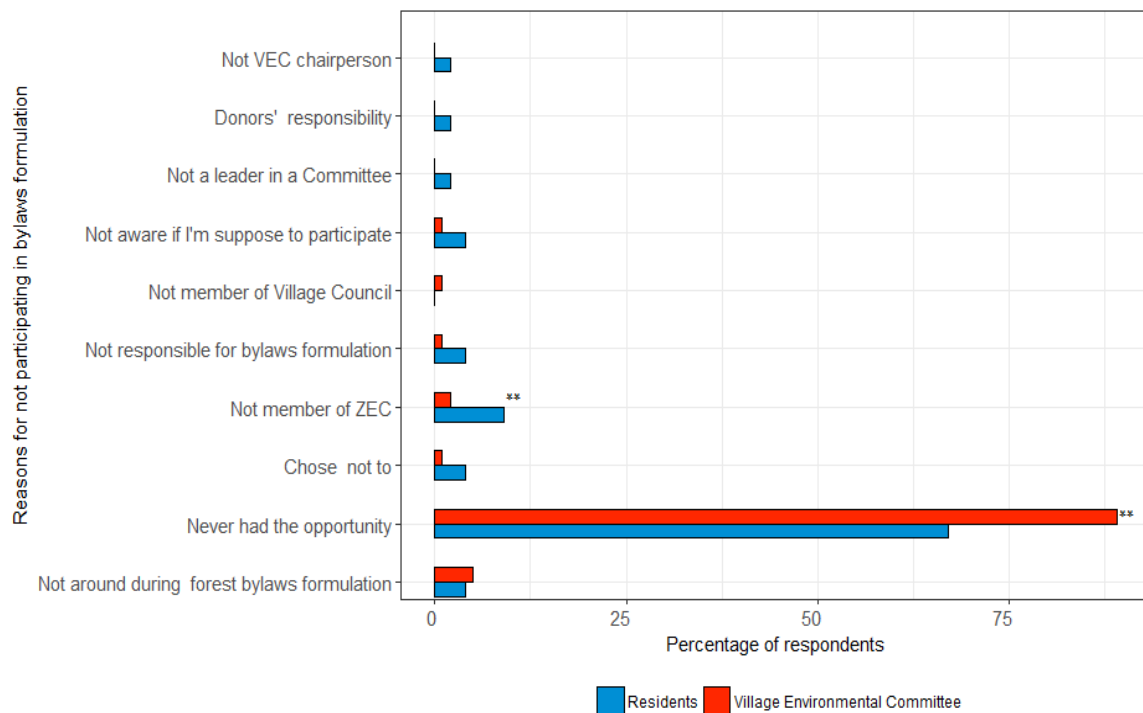


Figure 5. 4: Reasons for not participating in forest bylaws formulation; Note: chi –square test was used to compare residents and VEC responses, at 1% (***) and 5% (**) level of significance.

66% of residents and 52% of VEC members did not participate in the first approval of the forest bylaws in SULEDO VLFR because they also never had the opportunity from ZEC leaders (Figure 5.5).

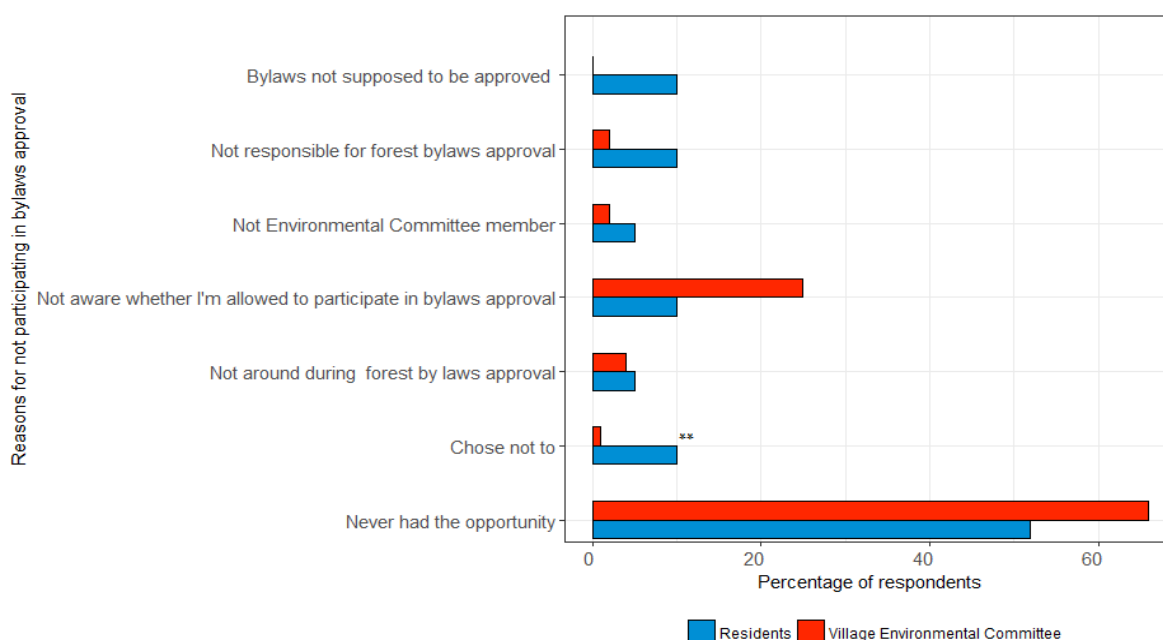


Figure 5.5: Reasons for not participating in the first approval of forest bylaws in SULEDO VLFR; Note: chi –square test was used to compare residents and VEC responses, at 1% (***) and 5% (**) level of significance.

During key informant interviews with village leaders and focus group discussions with VEC members, women and poorest individuals, it was noted that they are not involved in any PFM activities, including decision making, though the forest continued to be harvested. Although the institutional framework is clear to the contrary, all PFM activities involve only ZEC leaders, this undermines the aspiration of devolution.

“As members of the VEC, we have never been involved or even had information on the harvest that is going on in SULEDO VLFR, but the forest continues to be harvested” (FGD 1).

“We had never been involved in any PFM activities, we used to hear that SULEDO VLFR has been harvested but we know nothing” (FGD 2)

Implementation of CBFM is limited by miscommunication and lack of majority involvement in CBFM activities. Other studies have documented the same situation, that PFM is characterised by exclusion of the majority and local elites are seen to capture benefits as well as decision-making (Adhikari, 2014; Lund and Saito-Jensen, 2013; Etongo et al., 2018; Das, 2019). Lack of inclusiveness in PFM activities including decision-making may limit utilization rights to local communities, since access of the approach benefits may critically depend on

elites decision (Bardhan, 2002; Liu et al., 2018), hence undermine the approach in achieving its local community empowerment goal.

Lack of accountable representative local institutions

Transferring power without accountable representation in local institutions has largely undermined the implementation of CBFM policy. A majority of residents stated that VEC is not accountable to village members and accountability rate of VEC is very poor (Chapter 3, Figure 3.7). In this chapter, I found that 37% of residents felt that the VEC is not accountable because residents do not know anything about SULEDO, as they are not involved in any PFM activities (Figure 5.6). Reluctance of ZEC leaders to involve residents and VEC members in the village assembly, where decisions about CBFM are made, suggest elite dominance in the CBFM approach, affecting local community utilization rights and enforcement of decisions (Buchy 2000; Mansuri and Rao, 2013).

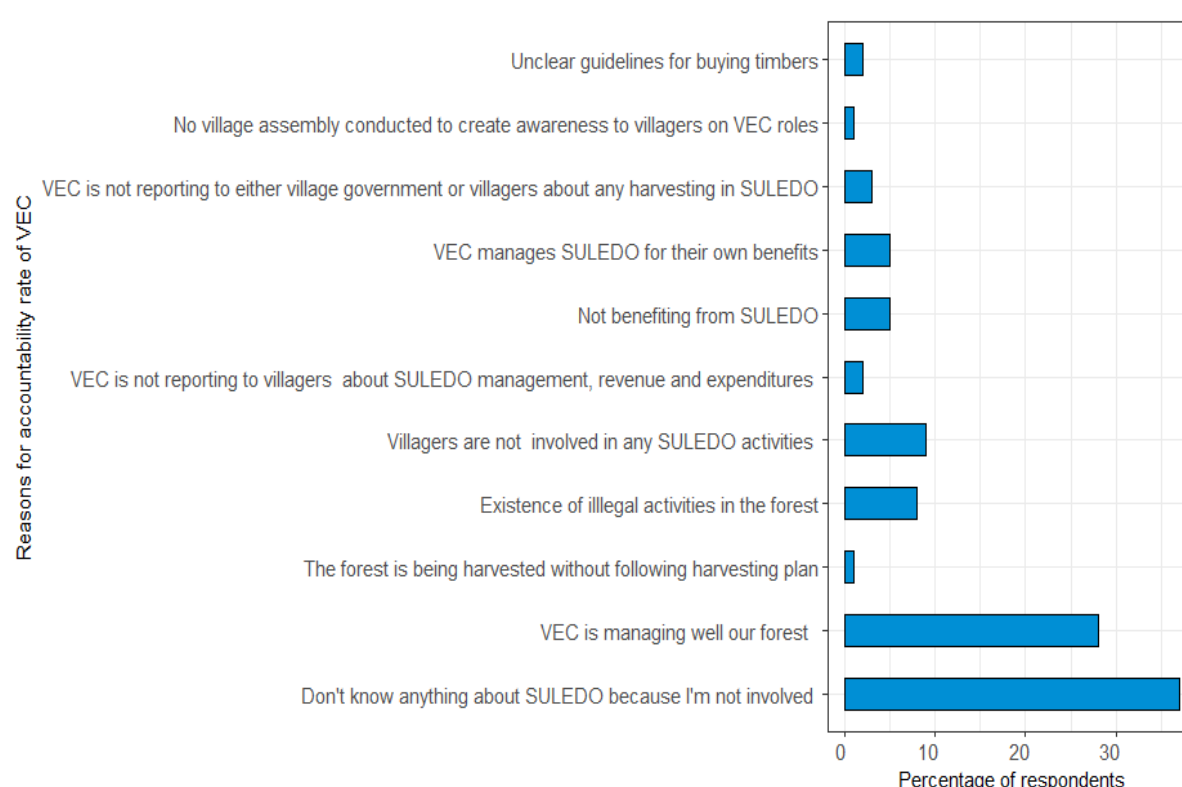


Figure 5.6: Reasons for VEC leaders not being accountable

During key informant interviews with village leaders and focus group discussions with VEC members, women and poorest individuals, I found that ZEC leaders are reluctant to report revenue and expenditure from SULEDO VLFR, despite the institutional framework for CBFM

being clear. The CBFM policy state that ZEC must report monthly, quarterly and annually to the VEC on management, revenue, permits, compensation, harvest and expenditure and VEC report this information to village government (URT, 2011, s.4 and 6.p12 and 16). The village government must then report this information to residents (URT, 2011, s.4 and 6.p13 and 16). ZEC seems to be a competing institution to village governments and this has weakened downward accountability and sustained elites in capturing decision making and benefits. Decentralisation studies have shown that conflict between committee members and non-committee members in the approach has been increased due to the lack of accountability of the committee to residents on utilization of forest products, this has retarded the PFM process implementation (e.g. Ribot, 2004; Kedir et al., 2018). This findings support Jacob and Brockington (2017) who argued that devolving powers to VECs that lack accountability and transparency may lead to favouritism and manipulation by politically powerful and well connected individuals, hence failure to achieve meaningful devolution.

5.3.4 Contribution of other policies or programmes to unsuccessful implementation of PFM policy

Institutional framework for REDD+ overlapping with PFM

Tanzania is among the countries with high rates of deforestation and forest degradation (FAO, 2015). Zahabu (2008) estimated CO₂ emissions are of 78 million tons per annum from deforestation and 48 million tons from forest degradation. In response, REDD+ was introduced and formalised into national development planning aiming to achieve sustainable forest management, poverty reduction as well as responding to sustainable development needs (Burgess et al. 2010; Kajembe et al. 2015). REDD+ aims to achieve these objectives by involving local communities in forest conservation and then compensate them through carbon credits (URT, 2009b). In 2009, REDD+ started to be implemented in Tanzania by NGOs in nine pilot areas located in village land forests, local and central government forests as well as forests on general land distributed in different parts of Tanzania (Kajembe et al. 2015). The Government of the Kingdom of Norway, the Royal Norwegian Government, the Government of Finland and Germany Climate Change Initiative supports REDD+ in Tanzania (Burgess et al. 2010). Furthermore, in Tanzania the implementation of REDD+ pilot project builds on PFM (Joint Forest Management and Community Based Forest Management) as its entry point, therefore PFM is a backbone of REDD+ implementation in Tanzania. However, PFM policy

requires forest officials to be facilitators of the approach while REDD+ require NGOs as facilitator and forest officials are on lookers and not active actors in REDD+ (URT 2002; URT, 2009b). I found that this situation contributed to confusion among local communities and weakened the link between forest officials and local communities, because for REDD+ to recognise NGOs as facilitators to local communities in forest management made forest officials feel that they are neglected and contributed to weaken their motivation to support local communities. Hence, this situation contributed to compromise the sustainability of PFM.

Local communities implementing REDD+ in Tanzania have received their compensation (Kajembe et al., 2015). However, some respondents reported that local communities were not compensated as expected, this has reduced their motivation to participate in forest management, hence affecting both REDD+ and PFM.

Some respondents reported that the implementation of REDD+ in Tanzania based on the existing institutional framework for PFM, contributes to limited impact of PFM. This is because implementation of PFM is very complex to local communities, then bringing complexity of REDD+ on top of PFM increases complication to local communities, because many of the VEC members were reported to lack PFM capacities and knowledge (e.g. Coulibaly-Lingani et al., 2011; Chinangwa et al., 2016). Initially it was assumed that REDD+ would facilitate the success and speed up the development and implementation of Community Based Forest Management policy (Lund et al., 2016; McNeill et al., 2018). However, respondents reported that REDD+ has contributed to threatening and undermining the objectives of PFM policy. REDD+ aimed to reduce carbon emissions globally, piggybacking onto PFM using the same mechanisms but adding more targets and new objectives that require more money. This situation undermines PFM policy since implementation of REDD+ needs to consider its global standards that do not align well with the context of PFM, which is locally implemented with local standards. The strategy has created further global requirements that may impose a new governance structure, which weakened the existing institutional framework for implementing PFM policy.

“REDD+ is an obstacle to PFM 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” (Officer from Forestry and Beekeeping Division, R4).

Brockhaus and Gregorio, (2014); Gallemore et al. (2014); Wibowo and Giessen, (2015) have argued that in REDD+, carbon in below ground biomass and soil is invisible, while the carbon storage is a global public good, and rights over these are unclear. This is unlike forest products under CBFM. The presence of multiple programmes with diverse objectives in forest management may contribute to make the decentralisation of forests more complex, since each programme has its own competing objectives (Mollick et al., 2018). Hence, this may result in conflicts with equity goals (Luintel et al., 2017). Integration of REDD+ into CBFM from national to local levels seemed to ignore the different jurisdictional governance issues, with implications for both programs. If this situation is not corrected, efforts to reduce emissions may end up doing more harm than good to local communities implementing CBFM policy (Gilani et al., 2017; McNeill et al., 2018; Maraseni et al., 2019).

Competing land use

It is not just tensions between specific programmes (i.e. REDD+ and CBFM) we need to be aware of, but more fundamentally the way different sets of policies recognise land tenure of local communities. Some respondents at national, district and village levels reported that the 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 recognised 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.

Forest policy lacks commitments that require compensation for indigenous trees [on communally owned land] when the government want to use the forest area [e.g. for road building]. [However,] the forest policy has commitments for compensation for exotic trees [e.g. pines and teaks]. Due to this weakness in the policy individuals at village level nationwide are influenced to clear natural forests and plant exotic trees. This has inhibited the implementation of Community Based Forest Management policy (Senior officer from Tanzania Forest Conservation Group, R35)

Schlager and Ostrom, (1992); Baynes et al. (2015) argue that tenure security is a critical and complex factor, which may undermine the motivation of the local communities to participate in Participatory Forest Management. This situation may occur when land and tree tenure is not well addressed in the policy by ignoring rights of local communities that includes rights to sell or lease tree and land, exclude outsiders, manage, improve, access land and withdraw resources from that land (Schlager and Ostrom, 1992).

5.4 Conclusions

In this chapter, I have assessed to what extent the implementation of PFM policy at national, district and village levels contributes to the PFM failure. I found that despite initial promise and good intentions, the success of PFM has been limited by existing power structures locally, nationally and internationally and by the very lack of capacity it was supposed to address. I also found that institutional barriers due to weak policy design have weakened coordination and communication among stakeholders, reducing upward accountability, hence failure to achieve meaningful PFM. Conflict of interest and power struggles within the forest sector limited PFM impact, because some of the forest staff are not happy with PFM approach and limit the utilization rights that PFM policy devolve to local communities. In addition, some of the forest staff are unwilling to facilitate and decentralise services to local communities fearing to lose their forest revenue while some other forest staff were not trusting local communities, if they are capable towards their new role in forest management and regarded them as sources forest illegal activities. I also found that constraints to PFM implementation arose from a subsequent reluctance of VEC's leaders to involve residents in PFM activities, limiting their accountability, and resulting in elite dominance in the PFM. I found that implementation of REDD+ has created a new governance structure, which weakened the existing institutional framework for implementing PFM policy. It is not just tensions between specific programmes (i.e. REDD+ and CBFM), I found that competing land use also undermines the CBFM implementation due to lack of motivation among local communities implementing the CBFM approach. Implementation of PFM does not automatically overcome shortages of financial and skilled human resources; in fact, the approach creates a great demand for resources. I found that implementation of PFM is characterised by lack of capacity to support the approach, in terms of financial, human, and physical resources, as well as policy knowledge of local communities and forest staff. Successful implementation of PFM has been dependent on donor and NGO support, which has not been sustained.

Chapter 6. THESIS DISCUSSION

A failure of PFM to achieve devolution of power to communities has been widely noted, (e.g. Dressler et al., 2010; Lund and Saito-Jensen, 2013; Chinangwa et al., 2016; Jacob and Brockington, 2017). Therefore, this thesis seeks to understand where in the policy process these failures occur, and what causes them.

Since the failings in PFM have been observed from many countries, chapter 2 analysed PFM policies across five countries to determine whether they contained the necessary provisions to achieve devolution 'on paper'. Chapter 3: looked at outcomes for a specific Tanzanian case study that might be expected to be a "best case": has PFM delivered devolution? Having found that Tanzanian PFM policy contained some, but not all of the provisions needed to achieve devolution, and that it had not achieved full devolution in the case study, chapters 4 and 5 aimed to identify why these failings had come about. Chapter 4 looked at the process of policy making, while chapter 5 looked at the process of implementation, at multiple scales, from national to village level. In this chapter, I first present the summary of the key research findings. I then discuss policy implications. Next, I propose some practical recommendations. I finally suggest areas for further research.

6.1 Key research findings

6.1.1 Representativeness of actors in PFM programme

Tanzania's policies require PFM to be managed by village level committees elected by all village members through a village assembly (URT, 1982,s.55.p.32), and to be representative of all parts of the community, with special consideration of women (URT, 1998. PS 3.p.27; URT, 2002, s.33.p.52 and s.38.p59; URT, 2007, p.5 and 12), unlike other countries as identified in chapter 2. The requirements for local institutions in PFM policies in Tanzania is in line with Agrawal and Ribot's (1999) decentralization framework. However, in chapter 3 I found that implementation of Tanzanian PFM fails to achieve the stated policy objectives for democratically elected members of the VEC in the case study. Since participation of residents and VEC members in committee elections was low and some VEC members did not even know how they became a member of the committee, the representativeness of local institutions vis-à-vis their constituents is compromised. These results were similar to those by Ribot, (1996) studying area in Sahelian countries; Burkina Faso, Mali, Niger and Senegal. He

concluded that participatory forestry does not integrate community representatives and without representation in decentralization, its implementation becomes a form of covert privatization of forest use rights. This situation of low participation of residents in PFM activities is due to residents' limited PFM knowledge that in turn stems from limitations inherent in the underlying policy design. For example, I found a lack of clear commitments in the PFM policy to raise awareness among residents with regard to terms of office and election calendars for VEC members. Tanzanian PFM policies mainly focus on creating PFM awareness among forest committee members with an understanding that these committee members will then train their constituents (URT, 1998.PS.3 and 5; URT, 2002.s.16.p. 17. s.33.p.35; URT, 2007. p.21). However I found that this is not evident in practice. The limited consideration of awareness raising among residents in PFM policy may stem from the process of PFM policy formulation. It was evident that during the process of PFM policy formulation, participants who had been civil servants for a long time were reluctant to involve local communities in managing forest resources. This was due to a lack of trust in local communities, since these civil servants regarded local communities as the main causes of deforestation (evidence in chapter 3 suggest that the views of these civil servant during policy formulation were right), while other civil servants feared losing revenue from forests. Likewise, most civil servants were reluctant because it was seemed that donors pushed the introduction of PFM and these participants thought that the implementation of PFM would not be sustainable after the end of donor support to the approach. After which, these civil servant felt that their previous approaches of forest management will no longer be in place and the implementation of PFM approach will be undermined. Hence, this situation would cause more challenges to achieve sustainable forest management. Most of the forest staff felt that it was better for the government to improve the current approach to forest management than adopt the PFM approach. These results were similar to those obtained by Agrawal and Ostrom 2001 in Nepal and India; Rahman et al. (2016) and Corson, (2016) in Madagascar that foreign donors have exerted pressure on the decentralization policy processes and become key actors in the reform efforts, as a result devolution in these countries has been less successful. This situation of lack of trust contributed to policy makers giving inadequate consideration of the dynamics at community level and assuming homogeneity of local communities. Some studies by Benjaminsen, (1997); Chitinga and Nemarundwe, (2003); Ortalo-Magné and Rady, (2008); Htun et al. (2012); Jalilova et al. (2012) have argued that communities are heterogeneous due

to characteristics of each individuals in the communities, and usually this divergence among communities needs to be considered in any approach implementation. This lack of understanding of community dynamics among higher-level officials during policy -making led to formulation of weak policy that allowed unrepresentative local institutions to develop in PFM. As a result, the implementation of PFM appears to be dominated by a small 'elite within an elite', in terms of who has control of, and participates in, PFM decisions and activities. Ribot, (1996); Agrawal and Gibson, (1999) have argued that it is important to ensure that local institutions in decentralization have representatives from all groups at local level that are affected by rules in question. This could allow majority preferences being adequately addressed and avoid elite dominance in both decision making and benefit capture (Bardhan, 2002; Liu et al., 2018). In addition, lack of trust may have resulted in limited consideration of residents in PFM policy in terms of strategies and capacity that would enhance greater inclusion of residents in VEC elections. Likewise, the situation has led to further deficiencies in policy implementation at national and district level, as most of the forest officials in central and local governments are reluctant to become partners with local communities and accept their participation in forest management. Similarly Ekoko, (2000); Oyono, (2004) in Cameroon and Nelson et al. (2007) in Tanzania come to a similar conclusion that decentralization is characterised by reluctance of government staff to become partners with local communities and government has retained decision making power and control the approach benefits; involvement of local communities became compliance and their participation became co-option. This situation has created a gap between government and local communities as well as a conflict of interest and power struggles within the forest sector. As a result, local communities remain excluded from key resource management processes and decisions making. This may also weaken forest staff's willingness to provide technical support to local communities (see e.g. Mustalahti and Lund, 2009; Persha and Blomley, 2009; Ameha et al., 2014b; Dyer et al., 2014; Liu and Innes, 2015). Specifically, Mustalahti and Lund (2009) argue that revenue obtained from forests prior to PFM were more effective in motivating forest officials to support local communities. Sundar, (2000) have argued that many of the decentralization initiatives have become case studies in aborted devolution. I also found that forest staff have not always been able to keep an eye on progress and problems of PFM, e.g. knowing when to support, when to step back, and when to intervene if the committee leaders are not meeting the PFM policy commitments (URT 2002 and 2007). This situation has

contributed to a reluctance of Zonal Environmental Committee leaders to involve the residents in VEC members' elections, since much power is concentrated at a relatively high level with the ZEC leaders and forest staff are not effectively performing their role as watchdogs. Hence, this has undermined the aspiration of representativeness in devolution (Agrawal and Ribot 1999). Therefore, complexity and distance between decision-makers and those affected increases the barriers to participation, and dilutes the reward. In effect therefore, the very problems that PFM was trying to solve (over-centralisation) infect the policy process. This leads to a new concentration of power, this time in the ZEC leaders, instead of forest staff. PFM therefore has not succeeded in distributing power more widely.

6.1.2 Empowerment of residents and local institutions in PFM programme

In a PFM programme, all community members are expected to have access to resources, participate in capacity building, decision making, formulation of by-laws and their first approval. For example, Tanzanian PFM policies require committee members to be trained in forest management skills with an understanding that these committee members will then train their constituents (URT, 1998.PS.3 and 5; URT, 2002.s.16.p. 17. S.33.p.35; URT, 2007. p.21). However in chapter 3 I found that PFM failed to achieve equitable benefit sharing because in the case study PFM is characterised by exclusion of the poorest and low engagement of residents and VEC members in all PFM activities. This has resulted in a small elite dominating the implementation of PFM, capturing both decision-making and the benefits of the approach. Similarly, Mkumbukwa, (2008); Coulibaly-Lingani et al., (2011); Lund and Saito-Jensen, (2013); Luintel et al. (2017); Rai et al. (2017); Etongo et al. (2018); Das, (2019) have reported inequalities in sharing PFM benefits and exclusion of majority in decision making as well as in accessing the decentralised resources, this compromise local communities empowerment. I also found that residents and VEC members are dissatisfied with the mechanism of sharing benefits and few of them access timber. Furthermore, I found that management activities and decision making involve only ZEC leaders, this limits the capacity of VEC members to know each other and prevents residents' preferences from being adequately addressed. Similarly, Ribot et al., (2010); Dressler et al., (2015); Liu et al., (2018) have suggested that decision making processes in decentralization are not inclusive and may be dominated and controlled by a local elite. This situation has been facilitated by a low level of PFM knowledge and engagement by residents and village level leaders. The low level of

PFM knowledge may be due to weak PFM policy design that focuses more on awareness raising among VEC members than residents. This has limited residents' awareness of their rights, responsibilities and the power that they may exercise when committee leaders contravene the PFM policy (see e.g. Coulibaly-Lingani et al., 2011; Mwangi et al., 2012). In addition, reluctance of VEC leaders to involve residents and village leaders in PFM activities including decision making has been attributed by weak PFM policy design that allows devolution of power to non-local elected committee leader. For example, I found that PFM policies do not require the ZEC secretary to be elected by residents. This situation resulted in power struggles in PFM as Zonal Environmental Committee appears as parallel structure with Village government leaders all protecting their power and legitimacy. Likewise, this also limited the rights and power of residents to remove the committee leader (ZEC secretary) if his performance is unsatisfactory. As a result, only ZEC participate in key decision making and managed the forest according to their own interest while residents and village government leaders have no power to question them (Chapter 3). Ribot, (1996) have argued that meaningful participation could be achieved if those affected by rules have opportunities to exercise a right to remove their representatives once unsatisfied with their performance.

This low level of PFM knowledge of residents has probably been facilitated by active disagreement of the key personnel in the government with the rationale for PFM during the process of policy formulation. This led to PFM policy being weakened at the design stage by policy makers giving inadequate consideration to building residents' capacity. This then further led to deficiency during implementation, with government reluctant to devolve appropriate capacity and powers to local communities, hence constraining effective PFM implementation. In addition, I found that PFM policy lacks consideration of poorest individuals: this stems from the policy formulation stage, since stakeholders involved in policy formulation assumed all local residents have same wealth status, which is not true. Hence, this has attributed to weak policy design that failed to actively include the poorest, hence a failure to meet key criteria for meaningful devolution. Meaningful devolution could be achieved if many people get more involved but I found that PFM simply does not generate enough benefits to make it worthwhile lots of people getting involved. This is due to local elites capturing most of the benefits generated. Agrawal and Gibson, (1999) have argued that effective decentralization could be achieved if residents have access to adequate funds for

implementing the approach rules. However, elite capture needs to be tackled to ensure effective use and distribution of resources.

6.1.3 Actors' accountability in PFM programme

To be downwardly accountable, local decision makers in PFM should be elected by the community (Agrawal and Ribot, 1999). However, chapter 3 found that some of the VEC members were appointed, rather than elected. Appointment of VEC members by ZEC leaders limits accountability to their constituents, as they may be more likely to represent the interests and preferences of those who appoint them than their constituents (Cronkleton et al., 2012; Liu et al., 2018). I also found that awareness of their identity (VEC members), and that of current ZEC members, was low amongst both residents and VEC members. Most VEC members did not participate in electing VEC leaders and some of the village government leaders lacked awareness of the terms for VEC members. Furthermore I found low awareness amongst both residents and VEC members of to whom VEC members were accountable, with qualitative insights affirming that VEC accountability is lacking. I also found that most of the residents and VEC members did not know how the revenue from the forest has been used. In addition, I found that a majority of residents stated that they did not trust the VEC, and that the VEC was poor, or very poor, in decision making and not accountable to, or legitimate representatives of, the village members. I also found that awareness of objectives for establishing SULEDO VLFR was low amongst both residents and VEC members. Similarly, Mollick et al., (2018); Coleman and Fleischman, (2012) have argued that PFM is characterised by lack of transparency in handling funds, and accountability to their constituents. Agrawal and Gibson, (1999) have concluded that for decentralization to be effective, local institutions must be accountable to their constituents, otherwise local institutions may become yet another channel for centralizing tendencies. In chapter 3 I also found that ZEC leaders diverge from the PFM policy and enforce election rules of VEC instead of Village government leaders. This situation undermined democratic elections of VEC members because ZEC leaders may be favouring individuals who are well connected to them to be members of VEC, so that later those individuals can vote for them to be again ZEC leaders, this is true of politics everywhere. As a result, the accountability of ZEC leaders to the VEC, village leaders, and residents is not evident, and village government leaders have no power to question them. Neither do the

appointed VEC hold the ZEC to account. This threatens the achievement of accountability in PFM.

This lack of accountability may be due in part to policy makers giving inadequate consideration of local context as well as lacking understanding of community dynamics. This led to some weaknesses in PFM policy design that has created new institutions, which lie outside the existing democratic institutions of village government, and operate at higher spatial scale (in the case of the ZEC). In this situation, power has been concentrated at a relatively high level (the ZEC). Village government leaders appear to be relatively powerless to hold PFM leaders accountable in practice. Without idealising village government, it may be that the creation of entirely new structures has created opportunities for elite capture that might have been mitigated if existing structures, which might be better understood by residents, had been given greater power in the PFM process. In addition, accountability of District Forest Officers to the Director of Forestry and Beekeeping Division is not evident. This situation has been due to weak policy design, contributed by lack of wider stakeholder engagement in PFM policy formulation. I found that foreign donors and NGOs played a great part in the process of policy formulation, with a lack of wider stakeholder engagement. Agrawal and Ostrom, (2001) sound a similar note with respect to decentralization in India and Nepal and concluded that where foreign donors have remained key actors in the policy reforms, devolution in these two countries has been constrained. This situation of lack of wider stakeholder engagement resulted in giving inadequate consideration of local practices during PFM policy formulation, leading to formulation of weak policy that failed to consider existing government organisation structure as well as practices for achieving accountability. As a result, upward accountability of the implementing authorities to the Director of Director of Forestry and Beekeeping Division is not evident and the Director of the Forestry and Beekeeping Division has no power to question them, limiting upward accountability and compromising devolution of power through PFM. Similarly Lund and Saito-Jensen, (2013); Baruah, (2017) argued that when local institutions are not upwardly accountable to the higher authorities, devolution is not achieved, and elite capture is likely.

6.2 Limitations and strengths of thesis research design and methods

My approach to studying what explains the mismatch between PFM policy objectives and outcomes is holistic. This is because I integrated different approaches (qualitative and quantitative, desk-based and field-based), looking at policy design, formulation and implementation at different levels, to understand where in the policy process failures of PFM to achieve devolution of power to communities occur, and what causes them. This produces results that can contribute to the debate on why PFM policy is not achieving full devolution. The findings of this study should be of interest to a broad audience including policy makers and scholars interested in community forest management and decentralization more generally.

The analysis across all chapters considered Agrawal and Ribot's framework. Drawing on previous work, Agrawal and Ribot's (1999) framework was developed specifically to analyse policies that aimed to decentralise forest management, envisaging a form of governance where management responsibility is vested in an executive body at the community level that is held to account through procedures of information sharing and election. Therefore, the Agrawal and Ribot framework is well suited to my study objectives. and the situation observed by recent literature, particularly failure of PFM to achieve devolution of power to communities (e.g. Chomba et al., 2015; Chinangwa et al., 2016; Mutune and Lund, 2016; Das, 2019). This framework helps me to understand where in the policy process these failures occur, and what causes them. This is because without understanding the powers of different actors in forest resource management, the domains in which they exercise their powers, and to whom and how they are accountable, it is impossible to analyse how far policies for forest decentralisation have gone towards achieving devolution and where in the policy process PFM failures occur (Agrawal and Ribot 1999). Therefore, the framework provides a better understanding of actors, powers, and accountability in devolution when compared with other theories that have been used to understand decentralized management of resources, for example participation and common pool resource theories by Arnstein, (1969) and Ostrom, (1990) respectively. In a nutshell, participation theory by Arnstein, (1969), inadequately considered the need for representativeness and accountability of actors (Arnstein, 1969) while common pool resource theory by Ostrom, (1990) inadequately considered the role of power and risk of free riding when individuals work collectively in achieving meaningful

decentralization (see e.g Smith, 1980; Schneider and Pommerehne, 1981; Singleton, 2017). However, Agrawal and Ribot's framework can be critiqued. Actors and accountability in the Agrawal and Ribot framework are hard to separate, because their aspirations are overlapping and it became hard to avoid repetition. For example, the framework requires actors to be elected representatives of the local community at the same time the framework recommends electoral processes as one of the most commonly used mechanisms to enforce accountability. Thus, members of the local institutions should be elected by all members of the community to enhance their downward accountability. In addition, Agrawal and Ribot's framework lacks recognition of some factors embedded in actors, empowerment and accountability that are necessary and could contribute to achieving devolution. For example, the achievement of meaningful devolution depends on organised political mobilisation of the communities because in the absence of mobilisation as observed in SULEDO VLFR, residents failed to know their rights, responsibilities and power over forest resources management and utilization under PFM. In this situation, committee leaders tend to share information that would favour them and avoid questions from residents. Similarly Meynen and Doornbos, (2004); Das, (2019) argued that devolution of power to local communities could be considered as meaningful where local communities have had at least some success in mobilising to demand greater authority.

I used a mixed methods approach (qualitative and quantitative methods) in my thesis. For example, in chapter 3 the use of a quantitative survey enabled me to quantify the extent to which villagers have been involved in the PFM processes, this provides a baseline for potential future re-survey to measure changes. Qualitative data collected from surveys, focus group discussions and key informant interviews helped to understand in-depth the perspectives of potentially marginalised groups. Therefore, the combination of qualitative and quantitative data was critical here to both capturing and understanding the issues at hand. Qualitative reporting adds more analytical depth, to more fully explain how and why elite capture has occurred, whilst the quantitative gives us a more rigorous means of understanding who the elite are. However, the use of mixed methods is time consuming (Braun and Clarke, 2013).

The use of individual surveys in chapter 3 and 5 rather than household surveys is another strength of my thesis. I used the questionnaire survey to assess the efficacy of PFM

implementation (Chapter 3) and contribution of community level dynamics to PFM policy failure (Chapter 5). A notable weakness of previous studies that I aimed to address in chapters 3 and 5 is the focus of surveys at the household level. Household surveys may lead to an unrepresentative sample, particularly in terms of gender, as household heads (and thus the respondents addressed) are normally men. Therefore, in chapter 3 and 5 I used individual-level survey of residents and Village Environmental Committee members, where respondents (residents) were selected using proportionate stratified random sampling based on gender and wealth status. The individual-level survey helped to ensure all the different socio-economic characteristics of a heterogeneous community are considered, which may influence respondents' engagement with, and knowledge and perceptions of PFM. I grouped respondents in order to examine whether their knowledge and perceptions of PFM differed strongly from those of other residents and to explore whether there was evidence of elite capture in PFM. The survey measured the extent of all devolution components (i.e. representativeness, empowerment and accountability of actors). By using standardised surveys with a representative sample of local residents in chapter 3, my thesis provides a baseline against which such developments might be measured.

The assessment of PFM policy design, formulation, implementation at national, district and village levels using quantitative and qualitative methods as well as desk-based review of documents in my thesis allows robust assessment and helps to increase the validity of the results as well as conclusion drawn in chapter 2, 3, 4 and 5. Previous studies (e.g. Kabir et al., 2019; Etongo et al., 2018; Jacob and Brockington, 2017; Chinangwa et al., 2016; Chomba et al., 2015), focused only on PFM policy implementation at local level and ignored national and district levels. This is the only forest governance study I know that investigates the implementation of PFM policy at national, district and village levels. My approach allows for a more comprehensive assessment of all levels of PFM policy implementation, hence this could help to understand better at what level PFM failures occur and what causes them.

6.3 Policy Implications

In this section, I discuss the policy implications of my thesis findings in the wider context of decentralised forest governance.

6.3.1 Actor representativeness in PFM programme

I found that the process of PFM policy formulation in Tanzania inadequately considered local community dynamics and assumed homogeneity of local communities, leading to development of weak PFM policy that allowed unrepresentative local institutions to develop in PFM. I found the same weakness in decentralised forest policies in Kenya, Uganda and Ethiopia (Chapter 2). As a result, implementation of PFM policy in the case study excluded the poorest people and became dominated by a small 'elite within an elite'. This situation undermines the achievement of meaningful devolution. Therefore, in order to achieve real devolution of power to local communities, donors and government need to reform PFM policies to ensure representation of the poorest individuals in the Village Environmental Committee. This may help to avoid elite capture and effective privatisation of management, enclosing previously *de facto* common pool resources. In addition, the PFM policy needs to ensure that priority is also given to local communities living closer to the forest. This will avoid the risk that local institutions become dominated by people far from the forest who have little involvement in the forest. Likewise, the number of members in the local institution should not be too small or too large. Institutions may not function well if they consist of too many members. This is because there is a risk of free riding i.e. decrease in individual effort and motivation if the number of members is too large (Smith, 1980; Schneider and Pommerehne, 1981). Therefore, the PFM policies should ensure optimal scales at which collective action work. On the other side, if the number of members is too small, this may lead to a risk of excluding some groups in the community to participate effectively in the approach implementation. This contradicts aspirations for representativeness in the devolution of power through PFM. In addition, the number of members in the local institution should not be too small because some aspects of forest management may require cooperation at larger scale e.g. enforcement.

6.3.2 Empowerment of local communities with full enforcement power

At present PFM policy in Tanzania is deficient in transferring full enforcement power to local communities, and the enforcement powers transferred to local communities were unbalanced. This situation is not unique to Tanzania because I found the same weakness in decentralised forest policies in Malawi, Kenya, Uganda and Ethiopia (Chapter 2). This situation has constrained decision-making powers and sense of ownership of local communities. In order to achieve meaningful devolution governments in Tanzania should be willing to transfer full enforcement power to local communities. This includes powers to execute forest by-laws and to take offenders to local courts.

6.3.3 Capacity building on PFM policy knowledge

PFM fails to achieve at least some of the stated policy objectives for democratically elected, downwardly accountable local actors and equitable benefit sharing, but this does not mean that the approach is not good. Some of the failure may be contributed by lack of capacity of both local communities (Chapter 3) and forest staff (Chapter 5) to implement PFM effectively. Therefore, Chapter 3 suggests the need to improve local communities' awareness of election calendars for committee members, rules and procedures for sharing PFM benefits (Behera and Engel, 2006; Persson and Prowse, 2017). Government, external facilitators and committee leaders could explore effective and cost-efficient options for information exchange. Awareness raising and training beyond village assemblies, which targets all residents and offers opportunities amongst villagers for co-learning, might help to enhance capacity to implement PFM and awareness of PFM rules that would help residents to demand and access the approach benefits effectively. Likewise, this will contribute to enhance resident's awareness of their power that they may exercise when committee leaders contravene the PFM policy during implementation. However, chapter 2 suggest the need to reform PFM policies to ensure that residents have opportunity and power to remove their representatives (in this case the ZEC secretary) once unsatisfied with their performance. This can contribute to improve inclusion in all PFM activities (e.g. VEC elections and decision making), hence reduce elite dominance in the PFM (Lund and Saito-Jensen, 2013). In addition, since forest staff are expected to act as technical advisers, liaison, mediators, coordinators and environmental watchdogs in PFM (URT 2002 and 2007), capacity building for forest staff

at national and district levels should be a key component of PFM (Chapter 5). This could help to reorient their new tasks, assuage their concerns about PFM and making clear the importance of their role, hence carry out the PFM activities efficiently.

6.3.4 Inclusion in decision making during policy formulation

Policy will be more acceptable if there is greater stakeholder engagement during policy formulation (Johansson, 2016; Kleinschmit et al., 2018). The process of policy making can be improved by making it more inclusive and improving communication and coordination among stakeholders. This may help to produce strong policy design that is widely accepted hence may achieve devolution as well as reduce power struggles and conflicts upon implementation. Therefore, governments must put in place arrangements that will allow wider and effective engagement of all stakeholders in at least some of the critical stages of PFM policy formulation. This may help the preferences, interests and values of the majority, especially marginalised groups, to be adequately valued and considered in the policy (Rondinelli et al., 1989). This could also avoid elites controlling decisions and capturing committees to which power is devolved, hence enhancing the sense of ownership, acceptability of the policy and the enforcement of decisions (Agrawal and Ribot, 1999 ; Kamoto, 2007; Ariti et al., 2019). Greater inclusion and representation of common citizens and local people in the decision making process in policy making may be achieved by drawing participants proportionately from the all socio-economic strata of society and engage them to almost all the stages of policy formulation (see e.g. Anderson, 2003). Government could explore effective and cost-efficient options for wider consultation to tie together all matters from political parties, interest groups, legislative procedures, presidential commitments and public opinion as they drive and help effective policy design. In addition, external facilitators should allow enough time for wider consultations with all participants and assume advisory and facilitation roles during by-law formulation rather than owning the process.

6.3.5 Enhance accountability and transparency of local institutions

PFM policies lack fundamental prerequisites for achieving accountability e.g. at present the PFM policy in Tanzania lacks clear mechanisms for upward accountability, defined schedules of committee elections, procedures for handling forest finance and public audit sessions (Chapter 2). As a result, chapters 3 and 5 suggest lack of downward accountability of local

institutions to their constituents as well as upward accountability of District Forest Officers to the Director of Forestry and Beekeeping Division. In order to ensure accountability and transparency in implementing the approach, there should be commitments in the PFM policies that define clear mechanisms of accountability, schedules of committee elections and require public audit and hearing sessions (Maharjan et al., 2009; Chinangwa et al., 2016). All this would require ongoing support by donors and ultimately by state institutions. Although PFM was promoted partly as a devolved response to perceived state weakness, its success may still depend on the capacity of state institutions. In addition, weak policy design greatly compromised downward accountability of local institutions, since findings in chapter 3 suggests that PFM has created new institutions, which lie outside the existing democratic institutions of village government, and operate at higher spatial scale (in the case of the ZEC). Village government leaders appear to be relatively powerless to hold PFM leaders accountable in practice. In order to achieve downward and upward accountability, there should be commitments in the policies that require committee leaders (e.g. the ZEC secretary) to be elected by constituents and give the Director of Forest and Beekeeping Division power to direct question the accountability of implementing authorities.

6.3.6 Exploring sustainable financial support plan to PFM

PFM implementation in Tanzania lacks a sustainable plan in term of financial resources to government after donor support, this was noted by most respondents (Chapter 5). This has been contributed by lack of political will to implement PFM e.g. not giving priority to PFM. As a result even the percent of money that local communities who are implementing the PFM approach pay to district councils for getting technical supports from forest officials has been reallocated to other priority sectors (e.g. health, education and agriculture) other than forests. Limited financial resources casts serious doubts on the ability of forest staff to perform effectively their responsibilities outlined in the PFM policy, as well as contributing to weaknesses of VECs. Chapter 5 suggests that government should implement PFM strategy as an issue within the National Forest Policy and not as a project, because projects have a finite period. This could avoid depending fully on international agencies and will help ensure the sustainability of the approach. This could be achieved by government giving priority to the implementation of PFM approach and ensure genuine financial empowerment at local, district and national levels. Successful implementation of decentralisation policies may be

contributed by political factors, thus genuine political commitment and support must come from national leaders to set dedicated budgets for implementing agencies and lower levels of administration (e.g. Olsson et al., 2004; Dyzenhaus, 2017; Kairu et al., 2018; Fischer and Ali, 2019). This may ensure effective and sustainable implementation of PFM beyond donor/NGOs support. Participatory Forest Management policies that transfer adequate financial resources, capacity, powers and responsibilities will be more successful than those that merely call for consultation with or participation of local communities. However, Chapter 3 suggests that caution is required in assuming that better external support would be sufficient to address the weaknesses in PFM. This is because failings are still apparent in areas that implemented PFM with significant donor financial support. Therefore, simply increasing support to local communities implementing the PFM might not be enough to achieve devolution if the policies themselves are not well-designed (chapter 2).

6.4 Suggested areas for further research

Follow-up forest governance assessment

In chapter 3 I found a significant gap between observed outcomes and PFM policy objectives, and therefore a failure to fully achieve meaningful devolution. Lund and Saito-Jensen, (2013) argued that power relations are likely to evolve over time. In this situation, it may be that the dissatisfaction I observed in Chapter 3 will lead to elite dominance being challenged. By using standardised surveys with a representative sample of local residents, my study provides a baseline against which such developments might be measured in future e.g. after 5 years. Therefore, it would be interesting to observe after five years how institutions evolve over time. Data collected from this study would enable a follow-up study to see how the implementation of the PFM approach have changed. This would help to understand whether communities have adapted and are taking control of institutions, or whether elite capture remains unchallenged.

6.5 Conclusion

A failure of PFM to achieve devolution of power to communities has been widely noted. This failure is not unique to Tanzania, since the same issue has been noted in most of the countries implementing Participatory Forest Management elsewhere. This thesis seeks to understand where in the policy process these failures occur, and what causes them. I found that some failures of the PFM policy are attributable to flawed implementation and others stem from limitations inherent in the process of policy formulation as well as the underlying policy's design. I found that a poor process of policy formulation has attributed to weak policy design that failed to meet key criteria for meaningful devolution and led to further deficiencies downstream. Results in the policy review chapter showed that even without flaws in implementation, these decentralization policies are unlikely to achieve true devolution in Tanzania, Malawi, Kenya, Uganda and Ethiopia. In fact, they may reduce the control that some local people actually have over their forests. I argue that if policies themselves are not designed to achieve devolution, it is unlikely that it will result. Next, I found poor implementation of the PFM policies. Thus, even without flaws in policy design, the policies were unlikely to achieve true devolution. I found that implementation of PFM has been dependent on donor and NGO support, which has not been sustained. Despite initial promise and good intentions, the success of PFM has been limited by existing power structures both nationally and internationally and by the very lack of capacity it was supposed to address. I argue that PFM is not a solution for a shortage of financial and personnel resources, as reported by respondents in Chapter 4, since its implementation creates a greater demand for them. In fact, Participatory Forest Management may be costly for effective implementation but governance and outcomes only improve if lots of people get more involved.

Given the flaws revealed in policy design, formulation and implementation (chapter 2 to 5), should attempts to decentralize forest resources be abandoned? Definitely not. Participatory Forest Management could be effective if the process of PFM policy formulation could allow wider stakeholder engagement, potentially leading to more effective policy design, increased acceptance of the policy and a greater sense of ownership by local communities upon implementation. However, this requires a substantial change in the way that governments and donors approach PFM.

REFERENCES

- Abas, M.A., 2019. Public Policy and Governance: Theory and Practice, in: A. Farazmand (Ed.), *Global Encyclopedia of Public Administration, Public Policy, and Governance*. p. 8. <https://doi.org/10.1007/978-3-319-20928-9>.
- Ackerman, J., 2004. Co-governance for accountability: beyond “exit” and “voice.” *World Dev.* 32, 447–463.
- Adam, Y.O., Eltayeb, A.M., 2016. Forestry decentralization and poverty alleviation: A review. *For. Policy Econ.* 73, 300–307. <https://doi.org/10.1016/j.forpol.2016.05.009>.
- Adams, M.A., Oduro, W., Ansong, M., 2017. Factors Affecting Stakeholders’ Participation in Collaborative Forest Management: The Case of Krokosua Hills Forest Reserve in Ghana. *J. Energy Nat. Resour. Manag.* 3, 66–73. <https://doi.org/10.26796/jenrm.v3i2.60>.
- Adhikari, S., Kingi, T., Ganesh, S., 2014. Incentives for community participation in the governance and management of common property resources: The case of community forest management in Nepal. *For. Policy Econ.* 44, 1–9. <https://doi.org/10.1016/j.forpol.2014.04.003>.
- Agrawal, A., 2007. Forests, Governance, and Sustainability: Common Property Theory and its Contributions. *Int. J. Commons* 1, 111–136. <https://doi.org/http://doi.org/10.18352/ijc.10>.
- Agrawal, A., 2001. Common property institutions and sustainable governance of resources. *World Dev.* 29, 1649–1672.
- Agrawal, A., Chhatre, A., Hardin, R., 2008. Changing governance of the world’s forests. *Science* (80-.). 320, 1460–1462.
- Agrawal, A., Gibson, C.C., 1999. Enchantment and disenchantment: The role of community in natural resource conservation. *World Dev.* 27, 629–649. [https://doi.org/10.1016/S0305-750X\(98\)00161-2](https://doi.org/10.1016/S0305-750X(98)00161-2).
- Agrawal, A., Gupta, K., 2005. Decentralization and participation: The governance of common pool resources in Nepal’s Terai. *World Dev.* 33, 1101–1114. <https://doi.org/10.1016/j.worlddev.2005.04.009>.
- Agrawal, A., Ostrom, E., 2001. Collective action, property rights, and decentralization in resource use in India and Nepal. *Polit. Soc.* 29, 485–514.
- Agrawal, A., Ribot, J., 1999. Accountability in Decentralization: A Framework with South Asian and West African Cases. *J. Dev. Areas* 33, 473–502.
- Agrawal, A., Yadama, G.N., 1997. How do local institutions mediate market and population pressures on resources? Forest Panchayats in Kumaon, India. *Dev. Change* 28, 435–465. <https://doi.org/10.1111/1467-7660.00050>.

- Alden -Wily, L., 1997. Villagers as Forest Managers and Governments “Learning to Let Go” The case of Duru-Haitemba and Mgori Forests in Tanzania Forest Participation Series No. 9, International Institute for Environment and Development (IIED), London.
- Alden -Wily, L., 2001. Facilitation Towards Community Based Forest Management of Minyughe Forest, Singida Rural District. Tanzania.
- Alden -Wily, L., Mbaya, S., 2001. IUCN Eastern Africa Programme Forest and Social Perspectives in Conservation The impact of land relations on the role of communities in forest future.
- Alden-Wily, L., 2005. Community Based Forest Management in Babati District, Tanzania.
- Alston, L.J., Harris, E., Mueller, B., 2009. De facto and de jure property rights: Land Settlement and Land Conflict on the Australian, Brazilian and US Frontiers. National Bureau of Economic Research.
- Ameha, A., Larsen, H.O., Lemenih, M., 2014a. Participatory forest management in Ethiopia: Learning from pilot projects. *Environ. Manage.* 53, 838–854.
<https://doi.org/10.1007/s00267-014-0243-9>
- Ameha, A., Nielsen, O.J., Larsen, H.O., 2014b. Impacts of access and benefit sharing on livelihoods and forest: Case of participatory forest management in Ethiopia. *Ecol. Econ.* 97, 162–171. <https://doi.org/10.1016/j.ecolecon.2013.11.011>
- Anderson, J.E., 2003. Public policy making: An introduction. Boston: Houghton Mifflin Company.
- Apesteguia, J., Maier-Rigaud, F.P., 2006. The role of rivalry: Public goods versus common-pool resources. *J. Conflict Resolut.* 50, 646–663.
<https://doi.org/10.1177/0022002706290433>.
- Ariti, A.T., van Vliet, J., Verburg, P.H., 2019. The role of institutional actors and their interactions in the land use policy making process in Ethiopia. *J. Environ. Manage.* 237, 235–246. <https://doi.org/10.1016/j.jenvman.2019.02.059>.
- Ariti, A.T., van Vliet, J., Verburg, P.H., 2018. Farmers’ participation in the development of land use policies for the Central Rift Valley of Ethiopia. *Land use policy* 71, 129–137.
<https://doi.org/10.1016/j.landusepol.2017.11.051>.
- Arnstein, S.R., 1969. A Ladder of Citizen Participation. *J. Am. Plan. Assoc.* 35, 216–224.
<https://doi.org/10.1080/01944366908977225>.
- Arts, B., Babili, I., 2012. Global Forest Governance: Multiple Practices of Policy Performance. pp. 111–132. https://doi.org/10.1007/978-94-007-5113-2_6.
- Bäckstrand, K., Khan, J., Kronsell, A., Lövbrand, E. (Ed.), 2010. Environmental politics and deliberative democracy. Cheltenham.

- Ball, J., Bull, G., Northway, S., Innes, J., Ward, D., Wood, P., 2007. Commonwealth forests: an overview of the Commonwealth's forests resources.
- Banana, Abwoli Y. Gombya-Ssembajjwe, William. Bahati, J., 2005. Decentralization of Forestry Resources in Uganda: Realities or Rhetoric? Makerere University, Kampala, Uganda. 25 pp. Retrieved from <http://makir.mak.ac.ug/handle/10570/1584?show=full>. Accessed: May 10, 2016.
- Bandaragoda, D.J., 2000. A framework for institutional analysis for water resources management in a river basin context. IWMI. Working paper 5. <https://doi.org/10.22004/ag.econ.92780>.
- Bandaragoda, D.J., Firdousi, G.R., 1992. Institutional factors affecting irrigation performance in Pakistan: Research and policy priorities. IIMI Country Paper - Pakistan No. 4. Colombo, Sri Lanka: International Irrigation Management Institute.
- Banyikwa, W.F., 1991. Constraints on sustainable use of natural resources in Tanzania. In: Suliman. M. (Ed.). *Alternative Development Strategies for Africa, Vol. 2: Environment. Women*. The Institute of African Alternatives. London. Pp 97-105.
- Barbier, E.B., Damania, R., Léonard, D., 2004. Corruption, Trade and Resource Conversion. *J. Environ. Econ. Manage.* 50, 276–299.
- Bardhan, P., 2002. Decentralization of Governance and Development. *J. Econ. Perspect.* 16, 185–205.
- Barlett, A.G., Malla, B. Y., 1992. Local forest management and forest policy in Nepal. *J. World For. Resour. Manag.* 6, 99–116.
- Baruah, M., 2017. Facipulation and Elite Formation Community Resource Management in Southwestern Ghana. *Conserv. Soc.* 15, 371–383.
- Baynes, J., Herbohn, J., Smith, C., Fisher, R., Bray, D., 2015. Key factors which influence the success of community forestry in developing countries. *Glob. Environ. Chang.* 35, 226–238. <https://doi.org/10.1016/j.gloenvcha.2015.09.011>.
- Becker, C.D., Ostrom, E., 1995. Human ecology and resource sustainability: the importance of institutional diversity. *Annu. Rev. Ecol. Syst.* 113–133.
- Becker, L., 2001. Seeing green in Mali's woods: colonial legacy, forest use, and local control. *Ann. Assoc. Am. Geogr.* 91, 504–526.
- Behera, B., Engel, S., 2006. Institutional analysis of evolution of joint forest management in India: A new institutional economics approach. *For. Policy Econ.* 8, 350–362. <https://doi.org/10.1016/j.forpol.2005.08.006>.
- Bekele, T., Ango, T.G., 2015. Do Interventions from Participatory Action Research Improve Livelihood and Reduce Conflicts Over Forest Resources? A Case Study from South Central Ethiopia. *Small-scale For.* 14, 441–458. <https://doi.org/10.1007/s11842-015->

- Béland, D., Howlett, M., Mukherjee, I., 2018. Instrument constituencies and public policy-making: An introduction. *Policy Soc.* 37, 1–13.
<https://doi.org/10.1080/14494035.2017.1375249>.
- Béné, C., Belal, E., Baba, M.O., Ovie, S., Raji, A., Malasha, I., Njaya, F., Na Andi, M., Russell, A., Neiland, A., 2009. Power Struggle, Dispute and Alliance Over Local Resources: Analyzing “Democratic” Decentralization of Natural Resources through the Lenses of Africa Inland Fisheries. *World Dev.* <https://doi.org/10.1016/j.worlddev.2009.05.003>.
- Benjaminsen, T.A., 1997. Natural resource management, paradigm shifts, and the decentralization reform in Mali. *Hum. Ecol.* 25, 121–143.
<https://doi.org/10.1023/A:1021940004348>.
- Bijaya, D., Academy, G.C.C., Xu, Z., Academy, C., 2016. Community forestry and livelihood in Nepal : A review. *J. Anim. Plant Sci.* 26, 1–12.
- Birch, J.C., Thapa, I., Balmford, A., Bradbury, R.B., Brown, C., Butchart, S.H.M., Gurung, H., Hughes, F.M.R., Mulligan, M., Pandeya, B., Peh, K.S.H., Stattersfield, A.J., Walpole, M., Thomas, D.H.L., 2014. What benefits do community forests provide, and to whom? A rapid assessment of ecosystem services from a Himalayan forest, Nepal. *Ecosyst. Serv.* 8, 118–127. <https://doi.org/10.1016/j.ecoser.2014.03.005>.
- Bixler, R.P., 2014. From Community Forest Management to Polycentric Governance: Assessing Evidence from the Bottom Up. *Soc. Nat. Resour.* 27, 155–169.
<https://doi.org/10.1080/08941920.2013.840021>.
- Blaikie, P., 2006. Is Small Really Beautiful? Community-based Natural Resource Management in Malawi and Botswana. *World Dev.* 34, 1942–1957.
<https://doi.org/10.1016/j.worlddev.2005.11.023>.
- Blewett, R.A., 1995. Property rights as a cause of the tragedy of the commons: institutional change and the pastoral Maasai of Kenya. *East. Econ. J.* 477–490.
- Blomley, N., 2008. Enclosure, common right and the property of the poor. *Soc. Leg. Stud.* 17, 311–331.
- Blomley, T., Iddi, S., 2009. Participatory Forest Management in Tanzania: 1993-2009. Lesson learned and experiences to date. Working paper, Ministry of Natural Resources.
- Blomley, T., Pfliegner, K., Isango, J., Zahabu, E., Ahrends, A., Burgess, N., 2008. Seeing the wood for the trees: an assessment of the impact of participatory forest management on forest condition in Tanzania. *Oryx* 42, 380–391.
- Blomley, T., Ramadhani, H., 2006. Going to Scale with Participatory Forest Management: Early Lessons from Tanzania 1. *Int. For. Rev.* 8, 93–100.
- Blomley, T., Ramadhani, H., Meshack, C., Mbwarmbo, L., Sianga, C., 2007. From project to

- programme: Experiences with mainstreaming and institutionalising PFM in Tanzania. pp. 214–225.
- Boesen, J., Madsen, B.S., Moody, T., 1979. Ujamaa--Socialism from above, *The International Journal of African Historical Studies*. Uppsala Offset Center AB, Sweden.
<https://doi.org/10.2307/218012>.
- Bowler, D.E., Buyung-ali, L.M., Healey, J.R., Jones, J.P.G., Knight, T.M., Pullin, A.S., 2012. Does community forest management provide global environmental benefits and improve local welfare ? *Front. Ecol. Environ.* 10, 29–36.
<https://doi.org/10.1890/110040>.
- Braun, V., Clarke, V., 2013. *Successful Qualitative Research, a practical guide for beginners*. SAGE Publications Inc., London, United Kingdom.
- Brockhaus, M., Gregorio, M. Di, 2014. National REDD + policy networks : from cooperation to conflict. *Ecol. Soc.* 19, 14.
- Bromley, D.W., Cernea, M.M., 1989. *The management of common property natural resources: Some conceptual and operational fallacies*. World Bank Publications.
- Bruce, J.W., 1999. Legal bases for the management of forest resources as common property.
- Bruña-García, X., Marey-Pérez, M.F., 2014. Public participation: a need of forest planning. *iForest* 7, 216–226. <https://doi.org/10.3832/ifor0979-007>.
- Buchy, M.H.S. 2000. Understanding public participation in forest planning: a review. *Forest Policy and Economics* 1, 15–25.
- Burgess, N.D., Bahane, B., Clairs, T., Danielsen, F., Dalsgaard, S., Funder, M., Hagelberg, N., Harrison, P., Haule, C., Kabalimu, K., Kilahama, F., Kilawe, E., Lewis, S.L., Lovett, J.C., Lyatuu, G., Marshall, A.R., Meshack, C., Miles, L., Milledge, S.A.H., Munishi, P.K.T., Nashanda, E., Shirima, D., Swetnam, R.D., Willcock, S., Williams, A., Zahabu, E., 2010. Getting ready for REDD+ in Tanzania: A case study of progress and challenges. *ORYX*.
<https://doi.org/10.1017/S0030605310000554>.
- Corson, C., 2016. *Corridors of Power; The Politics of Environmental Aid to Madagascar*. Yale University Press, New Haven and London.
- Carter, J., Gronow, J., 2005. Recent Experience in Collaborative Forest Management. CIFOR Occasional Paper No. 43. Indonesia: Center for International Forestry Research. 57.
- Cashore Benjamin, 1997. *Governing forestry: Environmental group influence in British Columbia and the US Pacific Northwest*. PhD thesis, (327pp). University of Toronto, Toronto.
- Castro, A.P., Nielsen, E., 2001. Indigenous people and co-management: Implications for conflict management. *Environ. Sci. Policy* 4, 229–239. [https://doi.org/10.1016/S1462-9011\(01\)00022-3](https://doi.org/10.1016/S1462-9011(01)00022-3).

- CBD, 2003. Hand Book of Convention on Biological Diversity; CBD: Montreal, QC, Canada, p. 937.
- Chhetri, B.B.K., Hakon Johnsen, F., Konoshima, M., Yoshimoto, A., 2013. Community forestry in the hills of Nepal: Determinants of user participation in forest management. *For. Policy Econ.* 30, 6–13. <https://doi.org/10.1016/j.forpol.2013.01.010>.
- Chhetri, B.B.K., Larsen, H.O., Smith-Hall, C., 2012. Law Enforcement in Community Forestry: Consequences for the Poor. *Small-scale For.* 11, 435–452. <https://doi.org/10.1007/s11842-011-9194-7>.
- Chinangwa, L., Sinclair, F., Pullin, A.S., Hockley, N., 2016. Can co-management of government forest reserves achieve devolution ? Evidence from Malawi. *For. Trees Livelihoods* 25, 41–58. <https://doi.org/10.1080/14728028.2015.1087886>.
- Chitinga, M., Nemarundwe, N., 2003. Policies and gender relationships and roles in the miombo woodland region of Southern Africa., in: G. Kowero, B. M, C. and U.R.S. (Ed.), *Policies and Governance Structures in Woodlands of Southern Africa*. pp. 187–212.
- Chomba, S.W., Nathan, I., Minang, P.A., Sinclair, F., 2015. Illusions of empowerment? Questioning policy and practice of community forestry in Kenya. *Ecol. Soc.* 20. <https://doi.org/10.5751/ES-07741-200302>.
- Classen, L., Humphries, S., FitzSimons, J., Kaaria, S., Jiménez, J., Sierra, F., Gallardo, O., 2008. Opening Participatory Spaces for the Most Marginal: Learning from Collective Action in the Honduran Hillsides. *World Dev.* 36, 2402–2420. <https://doi.org/10.1016/j.worlddev.2008.04.007>.
- Coleman, E.A., Fleischman, F.D., 2012. Comparing forest decentralization and local institutional change in Bolivia, Kenya, Mexico, and Uganda. *World Dev.* 40, 836–849. <https://doi.org/10.1016/j.worlddev.2011.09.008>.
- Cornwall, A., 2004. Spaces for transformation? Reflections on issues of power and difference in participation in development. *Particip. from tyranny to Transform.* 75–91.
- Corona, P., Chirici, G., McRoberts, R.E., Winter, S., Barbati, A., 2011. Contribution of large-scale forest inventories to biodiversity assessment and monitoring. *For. Ecol. Manage.* 262, 2061–2069.
- Coulibaly-Lingani, P., Savadogo, P., Tigabu, M., Oden, P.C., 2011. Factors influencing people's participation in the forest management program in Burkina Faso, West Africa. *For. Policy Econ.* 13, 292–302. <https://doi.org/10.1016/j.forpol.2011.02.005>.
- Cox, M., Arnold, G., Tomás, S.V., 2010. A review of design principles for community-based natural resource management. *Ecol. Soc.* 15, 38.
- Craft, J., Howlett, M., 2012. Policy formulation, governance shifts and policy influence: Location and content in policy advisory systems. *J. Public Policy* 32, 79–98. <https://doi.org/10.1017/S0143814X12000049>.

- Cronkleton, P., Pulhin, J.M., Saigal, S., 2012a. Co-management in community forestry: how the partial devolution of management rights creates challenges for forest communities. *Conserv. Soc.* 10, 91–102.
- Cronkleton, P., Pulhin, J.M., Saigal, S., 2012b. Co-management in Community Forestry: How the Partial Devolution of Management Rights Creates Challenges for Forest Communities. *Conserv. Soc.* 10, 91–102. <https://doi.org/10.4103/0972-4923.97481>.
- Crook, R .C and Manor, J., 1998. Democracy and decentralization in South- East Asia and West Africa: participation, accountability, and performance., illustrate. ed. Cambridge University Press, Cambridge.
- Das, B.K., 2019. Denial of Rights Continues: How Legislation for “Democratic Decentralisation” of Forest Governance was Subverted in the Implementation Process of the Forest Rights Act in India. *Eur. J. Dev. Res.* <https://doi.org/10.1057/s41287-019-0195-2>.
- Dokken, T., Caplow, S., Angelsen, A., Sunderlin, W.D., 2014. Tenure issues in REDD+ pilot project sites in Tanzania. *Forests* 5, 234–255.
- Dressler, W., Büscher, B., Schoon, M., Brockington, D., Hayes, T., Kull, C.A., McCarthy, J., Shrestha, K., 2010. From hope to crisis and back again? A critical history of the global CBNRM narrative. *Environ. Conserv.* <https://doi.org/10.1017/S0376892910000044>.
- Dressler, W., Büscher, B., Schoon, M., Brockington, D., Hayes, T., Kull, C.A., McCarthy, J., Shrestha, K., 2010. From hope to crisis and back again? A critical history of the global CBNRM narrative. *Environ. Conserv.* 37, 5–15. <https://doi.org/10.1017/s0376892910000044>.
- Dressler, W.H., McDermott, M.H., Schusser, C., 2015. The politics of community forestry in a Global Age — A critical analysis. *For. Policy Econ.* 58, 1–4. <https://doi.org/10.1016/j.forpol.2015.04.006>.
- Dye, T.R., 2001. Top Down Policymaking. Chatham House Publishers, New York.
- Dye, Thomas R., Z.H.L., 1996. The Irony of Democracy, 10th ed. Belmont, Calif.: Wadsworth.
- Dyer, J., Stringer, L.C., Dougill, A.J., Leventon, J., Nshimbi, M., Chama, F., Kafwifwi, A., Muledi, J.I., Kaumbu, J.-M.K., Falcao, M., Muhorro, S., Munyemba, F., Kalaba, G.M., Syampungani, S., 2014. Assessing participatory practices in community-based natural resource management: Experiences in community engagement from southern Africa. *J. Environ. Manage.* 137, 137–145. <https://doi.org/10.1016/j.jenvman.2013.11.057>.
- Dyzenhaus, A., 2017. Decentralization: Accountability in local governments, in: *Institutions and Democracy in Africa*. pp. 227–350. <https://doi.org/10.1017/9781316562888.014>.
- Egunyu, F., Reed, M.G., 2015. Social learning by whom? Assessing gendered opportunities

- for participation and social learning in collaborative forest governance. *Ecol. Soc.* 20, 44. <https://doi.org/10.5751/ES-08126-200444>.
- Ekoko, F., 2000. Balancing politics, economics and conservation: The case of the Cameroon Forestry Law reform. *Dev. Change* 31, 131–154. <https://doi.org/10.1111/1467-7660.00149>.
- Eline Frank, C., Kairo, J.G., Bosire, J.O., Mohamed, M.O.S., Dahdouh-Guebas, F., Koedam, N., 2017. Involvement, knowledge and perception in a natural reserve under participatory management: Mida Creek, Kenya. <https://doi.org/10.1016/j.ocecoaman.2017.03.009>.
- Etongo, D., Kanninen, M., Epule, T.E., Fobissie, K., 2018. Assessing the effectiveness of joint forest management in Southern Burkina Faso: A SWOT-AHP analysis. *For. Policy Econ.* 90, 31–38. <https://doi.org/10.1016/j.forpol.2018.01.008>.
- FAO, 2015. Global Forest Resources Assessment. How Are the World's Forests Changing? Second edition. Food and Agriculture Organization of the United Nations, Rome.
- FAO, 2014. Strengthening Forest Tenure Systems and Governance in Africa.
- FAO, 2011. Participatory Forest Management in Ethiopia, Practices and Experiences. Addis Ababa. Addis Ababa.
- FAO, 2010. Global Forest Resources Assessment. FAO Forestry Paper No. 163. Rome, Italy.
- FAO, 2002. Participatory forest management in Africa: an overview of progress and issues. Second international workshop on participatory forestry in Africa defining the way forward: sustainable livelihoods and sustainable forest management through participatory fore. Arusha, United Republic of Tanzania.
- Farnsworth, J., Boon, B., 2010. Analysing group dynamics within the focus group. *Qual. Res.* 10, 605–624. <https://doi.org/10.1177/1468794110375223>
- FDRE, 2007. Forest Development Conservation and Utilization Policy and Strategy 15. Ministry of agriculture and rural development. Government Printer. Addis Ababa, Ethiopia.
- Fischer, H.W., Ali, S.S., 2019. Reshaping the public domain: Decentralization, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), and trajectories of local democracy in rural India. *World Dev.* 120, 147–158. <https://doi.org/10.1016/j.worlddev.2018.09.013>.
- Fjeldstad, O., Semboja, J., Salaam, D., 2001. Why People Pay Taxes : The Case of the Development Levy in Tanzania. *World Dev.* 29, 2059–2074. [https://doi.org/https://doi.org/10.1016/S0305-750X\(01\)00081-X](https://doi.org/10.1016/S0305-750X(01)00081-X).
- Foley, P., McCay, B., 2014. Certifying the commons: eco-certification, privatization, and collective action. *Ecol. Soc.* 19, 28.

- Føllesdal, A., 1998. Survey Article: Subsidiarity. *J. Polit. Philos.* 6, 190–218.
<https://doi.org/10.1111/1467-9760.00052>.
- Gallemore, C.T., Prasti, R.D., Moeliono, M., 2014. Discursive barriers and cross-scale forest governance in Central Kalimantan, Indonesia. *Ecol. Soc.* 19, 18.
- Galvin, K.A., Beeton, T.A., Luizza, M.W., 2018. African community-based conservation: A systematic review of social and ecological outcomes. *Ecol. Soc.* 23, 39.
<https://doi.org/10.5751/ES-10217-230339>
- García-López, G.A., 2019. Rethinking elite persistence in neoliberalism: Foresters and techno-bureaucratic logics in Mexico's community forestry. *World Dev.* 120, 169–181.
<https://doi.org/10.1016/j.worlddev.2018.03.018>.
- Getacher, T and Jimma, A., 2012. The socio economic effects of community forest management: Evidence from Dendi district, Ethiopia. *Int. Aff. Glob. Strateg.* 4, 15–23.
- Gilani, H.R., Yoshida, T., Innes, J.L., 2017. Forest Policy and Economics A Collaborative Forest Management user group's perceptions and expectations on REDD + in Nepal. *For. Policy Econ.* 80, 27–33. <https://doi.org/10.1016/j.forpol.2017.03.004>.
- Glück, P., 2002. Property rights and multipurpose mountain forest management. *For. Policy Econ.* 4, 125–134.
- Gobeze, T., Bekele, M., Lemenih, M., Kassa, H., 2009. Participatory forest management and its impacts on livelihoods and forest status: the case of Bonga forest in Ethiopia. *Int. For. Rev.* 11, 346–357.
- GoK, 2005. Laws of Kenya, Kenya the Forests Act. Government Printer, Nairobi, Kenya.
- GoM, 2015. National Forest Policy. Government Printer, Lilongwe, Malawi.
- GoM, 2010. Putting PFM into Practice Manual in Malawi. Government Printer, Lilongwe, Malawi.
- GoM, 1997. National Forest Act. Government Printer, Lilongwe, Malawi.
- GoU, 2003. The National Forestry and Tree planting Act. Government Printer, Kampala, Uganda.
- Green, K.E., Lund, J.F., 2015. The politics of expertise in participatory forestry: a case from Tanzania. *For. Policy Econ.* 60, 27–34. <https://doi.org/10.1016/j.forpol.2014.11.012>.
- Gross-Camp, N., Rodriguez, I., Martin, A., Inturias, M., Massao, G., 2019. The type of land we want: Exploring the limits of community forestry in Tanzania and Bolivia. *Sustainability* 11. <https://doi.org/10.3390/su11061643>.

- Grundy, I.M., 1990. The potential for management of indigenous woodlands in communal farming areas of Zimbabwe with reference to the regeneration of *Brachystegia speciformis* and *Julbernardia globiflora*. M.Sc. Thesis. University of Zimbabwe.
- Gurung, A., Karki, R., Bista, R., 2011. Community-based forest management in Nepal: Opportunities and challenges. *Resour. Environ.* 1, 26–31.
- Haller, T., Galvin, M., Meroka, P., Alca, J., Alvarez, A., 2008. Who gains from community conservation?: Intended and unintended costs and benefits of participative approaches in Peru and Tanzania. *J. Environ. Dev.* 17, 118–144.
<https://doi.org/10.1177/1070496508316853>
- Hamza, K.F.S., Kimwer, E.O., 2007. Tanzania ' s Forest Policy and Its Practical Achievements with Respect to Community Based Forest Management in MITMIOMBO. *For. Res.* 24–33.
- Hardin, G., 1968. The tragedy of the commons. *Science* (80-.). 162, 1243–1248.
- Hargreaves, J.R., Morison, L.A., Gear, J.S., Kim, J.C., Makhubele, M.B., Porter, J.D., Watts, C., Pronyk, P.M., 2007. Assessing household wealth in health studies in developing countries: a comparison of participatory wealth ranking and survey techniques from rural South Africa. *Emerg. Themes Epidemiol.* 4, 1–9. <https://doi.org/10.1186/1742-7622-4-4>.
- Hermansson, H., 2019. Challenges to Decentralization of Disaster Management in Turkey: The Role of Political-Administrative Context. *Int. J. Public Adm.* 42, 417–431.
<https://doi.org/10.1080/01900692.2018.1466898>.
- Hobley, M., 2007. Where in the world is there pro-poor forest policy and tenure reform? The Rights and Resources Initiative, Published in Washington, DC.
- Hogl, K., 2002. Patterns of multi-level co-ordination for NFP-processes: learning from problems and success stories of European policy-making. *For. Policy Econ.* 4, 301–312.
- Holmes, J., 1995. Natural forest hand-book for Tanzania: Volume I. Forest ecology and management; Volume II. Forest policy, planning and utilization. Faculty of Forestry, Sokoine University of Agriculture.
- Howlett, M., Rayner, J., 2006. Understanding the historical turn in the policy sciences: A critique of stochastic, narrative, path dependency and process-sequencing models of policy-making over time. *Policy Sci.* 39, 1–18. <https://doi.org/10.1007/s11077-005-9004-1>.
- Htun, N.Z., Mizoue, N., Yoshida, S., 2012. Determinants of Local People's Perceptions and Attitudes Toward a Protected Area and Its Management: A Case Study From Popa Mountain Park, Central Myanmar. *Soc. Nat. Resour.* 25, 743–758.
<https://doi.org/10.1080/08941920.2011.620597>.

- Isaak, C.A., 1988. *Scope and Methods of Political Science*. Dorsey Press, Chicago.
- ITTO, 2003. *Principles, Criteria and Indicators for the Sustainable Management of African Natural Tropical Forests*. ITTO Policy Development Series 14. Yokohama, Japan.
- Iversen, V., Chhetry, B., Francis, P., Gurung, M., Kafle, G., Pain, A., Seeley, J., 2006. High value forests , hidden economies and elite capture : Evidence from forest user groups in Nepal ' s Terai B. Ecol. Econ. 58, 93–107.
<https://doi.org/10.1016/j.ecolecon.2005.05.021>.
- Jacob, T., Brockington, D., 2017. Learning from the other: Benefit sharing lessons for REDD+ implementation based on CBFM experience in Northern Tanzania. *Land use policy*.
<https://doi.org/10.1016/j.landusepol.2017.10.028>.
- Jalilova, G., Khadka, C., Vacik, H., 2012. Developing criteria and indicators for evaluating sustainable forest management: A case study in Kyrgyzstan. *For. Policy Econ.* 21, 32–43.
<https://doi.org/10.1016/j.forpol.2012.01.010>.
- Janerio, R. De, 1992. United Nations Conference on Environment & Development Rio de Janerio , Brazil , 3 to 14 June 1992.
- Jann W, W.K., 2007. Theories of the policy cycle, in: F, F., Miller GS, S.M. (Eds.), *Handbook of Public Policy Analysis: Theory, Politics, and Methods*. CRC Press, Boca Rotan, FL, pp. 43–62.
- Janssen, M.A., Goldstone, R.L., Menczer, F., Ostrom, E., 2008. Effect of rule choice in dynamic interactive spatial commons. *Int. J. Commons* 2, 288–312.
- Jennings, M., 2002. “Almost an Oxfam in itself”: Oxfam, Ujamaa and development in Tanzania. *Afr. Aff. (Lond)*. 101, 509–530.
- Jepperson, R.L., 1991. Institutions, institutional effects, and institutionalism. *new institutionalism Organ. Anal.* 6, 143–163.
- Jere, P., Varela, K., Voysey, B., 2000. Synthesis study of initiatives in co-management of natural resources in Malawi. *Work. Gr. co-management For. goods Serv. Natl. For. Policy*, Lilongwe, Malawi.
- Johansson, J., 2016. Participation and deliberation in Swedish forest governance: The process of initiating a National Forest Program.
<https://doi.org/10.1016/j.forpol.2016.06.001>.
- Juma, C., Clark, N., 1995. Policy research in sub-Saharan Africa: an exploration. *Public Adm. Dev.* 15, 121.
- Kabir, K.H., Knierim, A., Chowdhury, A., Herrera, B., 2019. Developing capacity of forest users through participatory forest management: Evidence from Madhupur Sal forest in Bangladesh. *J. Sustain. For.* 38, 149–170.
<https://doi.org/10.1080/10549811.2018.1540991>.

- Kairu, A., Upton, C., Huxham, M., Kotut, K., Mbeche, R., Kairo, J., 2018. From Shiny Shoes to Muddy Reality: Understanding How Meso-State Actors Negotiate the Implementation Gap in Participatory Forest Management. *Soc. Nat. Resour.* 32, 74–88.
<https://doi.org/10.1080/08941920.2017.1382628>.
- Kajembe, G.C., Silayo, D.S.A., Vatn, A., 2015. The adaptation of REDD+ initiatives in forest management regimes in two pilot projects of Kondoa and Kilosa Districts, Tanzania., Noragric Report.
- Kamoto, J., 2007. Improving forest beekeeping through monitoring in Chimaliro, Malawi, in: Guijt, I. (Ed.), *Negotiated Learning: Collaborative Monitoring in Forest Resource Management*. Resources for the Future, Washington (DC), pp. 104–113.
- Kamoto, J., Clarkson, G., Dorward, P., Shepherd, D., 2013. Doing more harm than good? Community based natural resource management and the neglect of local institutions in policy development. *Land use policy* 35, 293–301.
<https://doi.org/10.1016/j.landusepol.2013.06.002>.
- Kaoneka, A.R.S., Ngaga, Y.M., Monela, G.C., 2000. Case study: forests of the Usambara Mountains: historical perspectives and future prospects. *Forests in sustainable mountain development: a state of knowledge report for 2000*, Price MF and BM, Eds.
- Kartodihardjo, H., Nugroho, B., Rohadi, D., Suharjito, D., Dermawan, A., 2011. Community plantation forests in Indonesia: Challenges and policy recommendations . CIFOR Infobrief No.42. Bogor, Indonesia.
- Kedir, H., Negash, M., Yimer, F., Limenih, M., 2018. Contribution of participatory forest management towards conservation and rehabilitation of dry Afromontane forests and its implications for carbon management in the tropical Southeastern Highlands of Ethiopia. *J. Sustain. For.* 37, 357–374.
<https://doi.org/10.1080/10549811.2017.1414614>.
- Kellert, S.R., Mehta, J.N., Ebbin, S.A., Lichtenfeld, L.L., 2000. Community natural resource management: Promise, rhetoric, and reality. *Soc. Nat. Resour.* 13, 705–715.
<https://doi.org/10.1080/089419200750035575>.
- Kelsall, T., 2004. Contentious Politics, Local Governance and the Self A Tanzanian Case Study. Research report No 129. Uppsala, Sweden.
- Khalil, E.L., 1995. Institutions Versus Organizations by. *J. Institutional Theor. Econ.* 151, 445–466.
- Kihiyo, V., 1998. Forest Policy Changes in Tanzania: towards community participation in forest management. World Bank/WBI's CBNRM Initiat.
- Kiiza, J., Mubazi, J.K.E and Kibikyo, D.L., 2007. Understanding economic and institutional reforms in Uganda, in Mensah, J. (Ed) *Understanding economic in Africa: A tale of seven nations*, Basingstoke: Palgrave Macmillan, 57–94.

- Kleinschmit, D., Pülzl, H., Secco, L., Sergent, A., Wallin, I., 2018. Orchestration in political processes: Involvement of experts, citizens, and participatory professionals in forest policy making. *For. Policy Econ.* <https://doi.org/10.1016/j.forpol.2017.12.011>.
- Kowero, G., Kaoneka, R.S., Nhantumbo, I., Gondo, p., and Jumbe, C.B., 2003. Forest policies in Malawi, Mozambique, Tanzania and Zimbabwe, in: Kowero, G., Campbell, B.M., Sumaila, U.R. (Eds.), *Policies and Governance Structures in Woodlands of Southern Africa*. Center for International Forestry Research (CIFOR), Jakarta 10065, Indonesia, pp. 165–186.
- Krauss, E.S., 1989. Politics and the policymaking process. *Democr. Japan* 39–64.
- Krueger, R. and Casey, M., 2009. *Focus Groups: A Practical Guide for Applied Research*. Sage Publications, Thousand Oaks, CA.
- Kuehn, C.M., 2018. Patient Experience Data in US Food and Drug Administration (FDA) Regulatory Decision Making: A Policy Process Perspective. *Ther. Innov. Regul. Sci.* <https://doi.org/10.1177/2168479017753390>.
- Kumar, K., Singh, N.M., Kerr, J.M. et al., 2015. Decentralisation and democratic forest reforms in India: Moving to a rights-based approach. *For. Policy Econ.* 51, 1–8. <https://doi.org/10.1016/J.FORPOL.2014.09.018>.
- Kumar, S., 2002. Does Participation'' in Common Pool Resource Management Help the Poor? A Social Cost-Benefit Analysis of Joint Forest Management in Jharkhand, India. *World Dev.* 30, 763–782.
- Lambrick, F.H., Brown, N.D., Lawrence, A., Bebbler, D.P., 2014. Effectiveness of Community Forestry in Prey Long Forest, Cambodia. *Conserv. Biol.* 28, 372–381.
- Lamichhane, D., Parajuli, R., 2014. How Good is the Governance Status in Community Forestry ? A Case Study from Midhills in Nepal. *J. Ecosyst.* 2014, 7.
- LAMP, 2005. *Building a future with our forests: Experiences of community- based forestry*. LAMP booklet, SIDA.
- Larson, A., Ribot, J., 2004. Democratic decentralisation through a natural resource lens: an introduction. *Eur. J. Dev. Res.* 16, 1–25.
- Larson, A.M., 2002. Natural resources and decentralization in Nicaragua: Are local governments up to the job? *World Dev.* 30, 17–31. [https://doi.org/10.1016/S0305-750X\(01\)00098-5](https://doi.org/10.1016/S0305-750X(01)00098-5)
- Larson, A.M., Barry., D.B. and Dahal, G.R., 2010. New rights for forest based communities: Understanding processes of forest tenure reform. *Int. For. Rev.* 12, 78–96.
- Lebel, L., Anderies, J.M., Campbell, B., Folke, C., Hatfield-dodds, S., Hughes, T.P., Wilson, J., 2006. Governance and the Capacity to Manage Resilience in Regional Social-Ecological Systems. *Ecol. Soc.* 11, 19.

- Lemenih, M and Bekele, M., 2008. Participatory Forest Management Best Practices , Lesson Learnt and challenges encountered. The Ethiopian and Tanzanian Experiences.
- Lewins, R., 2007. Acknowledging the informal institutional setting of natural resource management consequences for policy-makers and practitioners. *Prog. Dev. Stud.* 7, 201–215.
- Lindblom, C.E., 1968. The Policy-Making Process. *Foundations of Modern Political Science Series.*
- Lindsay, J., 2004. Legal frameworks and access to common pool resources. *FAO Legal Papers Online* #39.
- Lissu, U.A and von Mitzlaff, I., 2007. Moving towards sustainable harvesting of village Forests experience from Kiteto SULEDO forest. *Arc Newsletter, Biannu.* 25.
- Liu, J., Innes, J.L., 2015. Participatory Forest Management in China: key challenges and ways forward. *Int. For. Rev.* 17, 477–484. <https://doi.org/10.1505/146554815817476512>.
- Liu, Z., Rommel, J., Feng, S., 2018. Does It Pay to Participate in Decision-making? Survey Evidence on Land Co-management in Jiangsu Province, China. *Ecol. Econ.* <https://doi.org/10.1016/j.ecolecon.2017.07.023>.
- Luintel, H., Bluffstone, R.A., Scheller, R.M., Adhikari, B., 2017. The Effect of the Nepal Community Forestry Program on Equity in Benefit Sharing. *J. Environ. Dev.* 26, 297–321. <https://doi.org/10.1177/1070496517707305>.
- Lund, J.F., 2007. Is small beautiful? Village level taxation of natural resources in Tanzania. *Public Adm. Dev.* 27, 307–318.
- Lund, J.F., Rutt, R.L., Ribot, J., 2018. Trends in research on forestry decentralization policies. *Curr. Opin. Environ. Sustain.* <https://doi.org/10.1016/j.cosust.2018.02.003>.
- Lund, J.F., Saito-Jensen, M., 2013. Revisiting the Issue of Elite Capture of Participatory Initiatives. *World Dev.* 46, 104–112. <https://doi.org/10.1016/j.worlddev.2013.01.028>.
- Lund, J.F., Sungusia, E., Mabele, M.B., Scheba, A., 2016. Promising Change, Delivering Continuity: REDD+ as Conservation Fad. *World Dev.* <https://doi.org/10.1016/j.worlddev.2016.08.005>.
- Lund, J.F., Treue, T., 2008. Are We Getting There? Evidence of Decentralized Forest Management from the Tanzanian Miombo Woodlands. *World Dev.* 36, 2780–2800. <https://doi.org/10.1016/j.worlddev.2008.01.014>.
- Lynch, O.J., 1998. Law, pluralism and the promotion of sustainable community-based forest management. *Unasylva* 49, 52–56.
- Marlène, B., Hoverman, S., 2000. Understanding public participation in forest planning: a review. *For. Policy Econ.* 1, 15–25.

- Maharjan, M., Dhakal, T., Thapa, S.K., Schreckenberg, K., Luttrell, C., 2009. Improving the benefits to the poor from community forestry in the Churia region of Nepal. *Int. For. Rev.* 11, 254–267. <https://doi.org/10.1505/ifor.11.2.254>.
- Malimbwi, R., 2000. Natural Forest Management in Laiseri Village, A Pilot project for the land use management programme in Kiteto District. Tanzania.
- Malimbwi, R.E., Munyanziza, E., 2004. From local people to local people: forest management and policy in Tanzania over 100 years. *UNISWA Res. J. Agric. Sci. Tech* 7, 101–108.
- Manin, B., Przeworski, A., Stokes, S., 1999. *Democracy, Accountability, and Representation*. Cambridge University Press. Cambridge, UK.
- Manor, J., 1999. The political economy of democratic decentralization. *Directions in development*. Washington, D.C. : The World Bank.
- Mansuri, G., Rao, V., 2013. *Localizing development: does participation work?* Washington, DC: The World Bank. <https://doi.org/10.1596/978-0-8213-8256-1>.
- Maraseni, T.N., Bhattarai, N., Karky, B.S., Cadman, T., Timalisina, N., Bhandari, T.S., Apan, A., Ma, H.O., Rawat, R.S., Verma, N., San, S.M., Oo, T.N., Dorji, K., Dhungana, S., Poudel, M., 2019. An assessment of governance quality for community-based forest management systems in Asia: Prioritisation of governance indicators at various scales. *Land use policy* 81, 750–761. <https://doi.org/10.1016/j.landusepol.2018.11.044>.
- Martínez-Falero, E., González-García, C., García-Abril, A., Ayuga-Téllez, E., 2018. Validation of a methodology for confidence-based participatory forest management. *Forests* 9. <https://doi.org/10.3390/f9070399>.
- Masomera, A., 2002. Towards an Analytical Framework for Assessing Property Rights to Water Sources in Farming Areas of Zimbabwe: A theoretical perspective.
- McDermott, Constance L., B.C. and P.K., 2009. Setting the bar: An international comparison of public and private policy specifications and implications for explaining policy trends. *J. Integrative Environ. Sci.* 6, 1–21.
- McKean, M.A., 1992. Success on the commons: A comparative examination of institutions for Common property resource management. *J. Theor. Polit.* 4, 247–281.
- McNeill, D., Furuly, M., Vatn, A., 2018. REDD+, NGOs and local government in Tanzania. *Int. For. Rev.* 20, 375–389.
- Mekonnen, A and Bluffstone, R., 2015. Forest tenure reform in Ethiopia. In R. A. Bluffstone and E. J. Robinson (Eds.), *Forest Tenure reform in Asia and Africa: Local control for improved livelihoods, forest management, and carbon sequestration*. New York: Taylor and Francis; Routledge. pp. 56–73.

- Merrey, D.J., 1995. Performance improvement capacity audit: a methodology for diagnosing capacity to improve irrigation performance. *Int. J. Water Resour. Dev.* 11, 11–24.
- Meynen, W., Doornbos, M., 2004. Decentralizing Natural Resource Management: A Recipe for Sustainability and Equity. *Eur. J. Dev. Res.* 16.
- Michael, B., Frankland, J., Thomas, M., Robson, K., 2001. *Focus Groups in Social Research*. Sage, London.
- Misana, S., Mung'ong'o, C., Emukamuri, B., 1996. Miombo woodlands in the wider context: macro-economic and inter sectoral influences.
- Mitchell, K., Branigan, P., 2000. Using focus groups to evaluate health promotion interventions. *Heal. Educ. Libr. Rev. J. Mark. Pract. Appl. Mark. Sci.* Iss 100, 261–268.
- Mitchell, R. K., Agle, B. R. and Wood, D.J., 1997. Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *Acad. Manag. Rev.* 22, 853–886.
- Mkumbukwa, A.R., 2008. The evolution of wildlife conservation policies in Tanzania during the colonial and post-independence periods. *Dev. South. Afr.* 25, 589–600. <https://doi.org/10.1080/03768350802447875>.
- MNRT, 2016. Report from Chief Executive of Tanzania Forest Service Agency [WWW Document]. URL <http://www.tfs.go.tz/index.php/en/about/chief-executives-message> (accessed 4.6.16).
- MNRT, 2015. National Forest Resources Monitoring and Assessment of Tanzania Mainland (NAFORMA). Main Results Report. Dar es Salaam.
- MNRT, 2009. National Forestry Resources Monitoring and Assessment Project in Tanzania. Dar es Salaam.
- MNRT, 2008. Participatory Forest Management in Tanzania. Facts and Figures. Forestry and Beekeeping Division. Dar es Salaam.
- Mogoi, J., Obonyo, E., Ongugo, P., Oeba, V., Mwangi, E., 2012. Communities, Property Rights and Forest Decentralisation in Kenya: Early Lessons from Participatory Forestry Management. *Conserv. Soc.* 10, 182–194. <https://doi.org/10.4103/0972-4923.97490>.
- Mohammed, A.J., Inoue, M., 2012. Drawbacks of decentralized natural resource management: experience from Chilimo Participatory Forest Management project, Ethiopia. *J Res* 17, 30–36. <https://doi.org/10.1007/s10310-011-0270-9>.
- Mohammed, A.J., Inoue, M., Shivakoti, G., 2017. Moving forward in collaborative forest management: Role of external actors for sustainable Forest socio-ecological systems. *For. Policy Econ.* 74, 13–19. <https://doi.org/10.1016/j.forpol.2016.10.010>.

- Mollick, S.A., Khalilur Rahman, M., Nabiul Islam Khan, M., Nazmus Sadath, M., 2018. Evaluation of good governance in a participatory forestry program: A case study in Madhupur Sal forests of Bangladesh. *For. Policy Econ.* 95, 123–137. <https://doi.org/10.1016/j.forpol.2018.07.014>.
- Mukherjee, I., Howlett, M., 2015. Who is a stream? Epistemic communities, instrument constituencies and advocacy coalitions in public policy-making 3, 65–75. <https://doi.org/10.17645/pag.v3i2.290>.
- Mustalahti, I., Lund, J.F., 2009. Where and How Can Participatory Forest Management Succeed? Learning From Tanzania, Mozambique, and Laos. *Soc. Nat. Resour.* 23, 31–44. <https://doi.org/10.1080/08941920802213433>.
- Mutune, J.M., Hansen, C.P., Wahome, R.G., Mungai, D.N., 2017. What rights and benefits? The implementation of participatory forest management in Kenya: The case of Eastern Mau Forest Reserve. *J. Sustain. For.* 36, 230–249. <https://doi.org/10.1080/10549811.2017.1289105>.
- Mutune, J.M., Lund, J.F., 2016. Unpacking the impacts of “participatory” forestry policies: Evidence from Kenya. *For. Policy Econ.* 69, 45–52. <https://doi.org/10.1016/j.forpol.2016.03.004>.
- Mwangi, E., Mogoi, J., Ongugo, P., Obonyo, E., Oeba, V., 2012. Communities, property rights and forest decentralisation in Kenya: Early lessons from participatory forestry management. *Conserv. Soc.* <https://doi.org/10.4103/0972-4923.97490>.
- Nagasaka, K., Böcher, M., Krott, M., 2016. Are forest researchers only scientists? Case studies on the roles of researchers in Japanese and Swedish forest policy processes. *For. Policy Econ.* <https://doi.org/10.1016/j.forpol.2016.06.006>.
- Nagendra, H., Ostrom, E., 2012. Polycentric governance of multifunctional forested landscapes. *Int. J. Commons* 6, 104–133.
- Nathan, I., Lund, J.F., Gausset, Q., Andersen, S.K., 2007. On the Promises of Devolution : Overcoming the Constraints of Natural Resource Management in a Village in Tanzania. *J. Transdiscipl. Environ. Stud.* 6.
- Nelson, F., Agrawal, A., 2008. Patronage or participation? Community-based natural resource management reform in Sub-Saharan Africa. *Dev. Change* 39, 557–585. <https://doi.org/10.1111/j.1467-7660.2008.00496.x>.
- Nelson, F., Nshala, R., Rodgers, W.A., 2007. The Evolution and Reform of Tanzanian Wildlife Management Author (s): Fred Nelson , Rugemeleza Nshala and W . A . Rodgers Published by : Ashoka Trust for Research in Ecology and the Environment and Wolters Stable URL : <https://www.jstor.org/stable/263925>, 232–261.
- Ngaga, Y., Luoga, E. J., Sekibaha, F. M. & Chiragi, J.S., 2003. Report on Capacity Plan in the

- Districts Management of Natural Resources Programme (MNRP) Operates in Tanzania. Ministry of Natural Resources and Tourism. Tanzania.
- Nguyen, T.S., Mohamed, S., Panuwatwanich, K., 2018. Stakeholder Management in Complex Projects. *J. Enginering, Proj. Prod. Manag.* 112.
- Nhantumbo, I., Monela, G.C., Kowero, G., 2003. Land policies in Mozambique and Tanzania: implications for forestry development. *Policies Gov. Struct. woodlands South. Africa* 113.
- Nielsen, M.R., Meilby, H., 2013. Determinants of Compliance with Hunting Regulations Under Joint Forest Management in Tanzania. *South African J. Wildl. Res.* 43, 120–137. <https://doi.org/10.3957/056.043.0210>.
- North, D.C., 1990. Institutions, institutional change and economic performance. Cambridge university press.
- Nuijten, M., 2005. Power in practice: A force field approach to natural resource management. *J. Transdiscipl. Environ. Stud.* 4, 1–14.
- Odera, J.A., 2009. The Changing Forest Management Paradigm in Africa : A Case for Community Based Forest Management System. *J.Discov. Innov.* 21, 27–35.
- Olken, B.A., 2007. Monitoring Corruption: Evidence from a Field Experiment in Indonesia. *J. Polit. Econ.* 115, 200–249.
- Olowu, D., 2003. Local Institutional and Political Structures and Processes: Recent Experience In Africa. *Public Admin. Dev* 23, 41–52. <https://doi.org/10.1002/pad.258>.
- Olson, M., 1965. Logic of collective action public goods and the theory of groups Rev. ed.
- Olsson, P., Folke, C., Hahn, T., 2004. Social-Ecological Transformation for Ecosystem Management : the Development of Adaptive Co-management of a Wetland Landscape in Southern Sweden. *Ecol. Soc.* 9.
- Omura, M., 2008. Property rights and natural resource management incentives: do transferability and formality matter? *Am. J. Agric. Econ.* 90, 1143–1155.
- ORGUT, 2010. Securing Sustainability of LAMP Initiatives Support to SULEDO Forest Reserve, Consultancy Inputs on Harvest Operation and Forest Management.
- Ortalo-Magné, F., Rady, S., 2008. Heterogeneity within communities: A stochastic model with tenure choice. *J. Urban Econ.* 64, 1–17. <https://doi.org/10.1016/j.jue.2008.01.001>.
- Ostrom, E., 2008. The challenge of common-pool resources. *Environ. Sci. Policy Sustain. Dev.* 50, 8–21.
- Ostrom, E., 2005. Self-governance and forest resources. *Terracotta Read. A Mark. approach to Environ.* 131–154.

- Ostrom, E., 2004. Understanding collective action. International Food Policy Research Institute (IFPRI).
- Ostrom, E., 1999. Self-governance and forest resources. Occasional Paper No.20, 20. Indonesia. <https://doi.org/10.17528/cifor/000536>
- Ostrom, E., 1995. Designing complexity to govern complexity. *Prop. rights Environ. Soc. Ecol.* issues 33–45.
- Ostrom, E., 1994. Neither market nor state: Governance of common-pool resources in the twenty-first century. International Food Policy Research Institute Washington, DC.
- Ostrom, E., 1990. *Governing the commons: The evolution of institutions for collective action*. Cambridge university press, Cambridge.
- Ostrom, E., Burger, J., Field, C.B., Norgaard, R.B., Policansky, D., 1999. Revisiting the commons: local lessons, global challenges. *Science* (80-.). 284, 278–282.
- Ostrom, E., Gardner, R., Walker, J., 1994. *Rules, games, and common-pool resources*. University of Michigan Press.
- Oyono, P.R., 2007. Is Decentralization in Natural Resource Management Leading to Livelihoods Improvement and Sustainability? Evidence from Central Africa. In: Kelbessa, E. and De Stoop, C. (eds.). *Participatory forest management (PFM), biodiversity and livelihoods in Africa*. pp. 19–35.
- Oyono, P.R., 2004a. Assessing accountability in Cameroon's local Forest management. Are representatives responsive. *African J. Polit. Sci.* 9, 126–136.
- Oyono, P.R., 2004b. One step forward, two steps back? Paradoxes of natural resources management decentralisation in Cameroon. *J. Mod. Afr. Stud.* 42, 91–111. <https://doi.org/10.1017/S0022278X03004488>.
- Pandit, R., Bevilacqua, E., 2011. Forest users and environmental impacts of community forestry in the hills of Nepal. *For. Policy Econ.* 13, 345–352. <https://doi.org/10.1016/j.forpol.2011.03.009>.
- Pasgaard, M., Chea, L., 2013. Double inequity? The social dimensions of deforestation and forest protection in local communities in northern Cambodia. *Österreichische Zeitschrift für Südostasienwissenschaften*, 2, 285–269. <https://doi.org/10.4232/10.ASEAS-6.2-6>.
- Pendzich, C., Thomas, G., Wohlgenant, T., 1994. The role of alternative conflict management in community forestry. *For. Trees People Program. Phase II. Work. Pap.*
- Persha, L., Andersson, K., 2014. Elite capture risk and mitigation in decentralized forest governance regimes. *Glob. Environ. Chang.* 24, 265–276. <https://doi.org/10.1016/j.gloenvcha.2013.12.005>.

- Persha, L., Blomley, T., 2009. Management decentralization and montane forest conditions in Tanzania. *Conserv. Biol.* 23, 1485–1496.
- Persson, J., Prowse, M., 2017. Collective action on forest governance: An institutional analysis of the Cambodian community forest system. *For. Policy Econ.* 83, 70–79. <https://doi.org/10.1016/j.forpol.2017.06.008>.
- Petersen, L., Sandhövel, A., 2001. Forestry policy reform and the role of incentives in Tanzania. *For. Policy Econ.* 2, 39–55.
- Pollitt, C. Bouckaert, G., 2011. Public management reform. A comparative analysis – new public management, governance, and the neo-weberian state (3rd ed.). Oxford University Press Inc, New York, NY.
- Poteete, A., Ribot, J.C., 2011. Repertoires of domination: Decentralization as process in Botswana and Senegal. *World Dev.* 39, 439–449.
- Potts, R., Vella, K., Dale, A., Sipe, N., Potts, R., Vella, K., Dale, A., Evaluating, N.S., 2016. Evaluating Governance Arrangements and Decision Making for Natural Resource Management Planning : An Empirical Application of the Governance Systems Analysis Framework. *Soc. Nat. Resour.* <https://doi.org/10.1080/08941920.2016.1185557>.
- Powell, B., A, I., McMullin, S., Jamnadass, R., Padoch, C., Pinedo-Vasquez, M., Sunderland, T., 2013. The role of forests, trees and wild biodiversity for nutrition-sensitive food, International Conference on Nutrition. Rome, Italy.
- Pratt, C., 1999. Julius Nyerere: Reflections on the Legacy of His Socialism. *Can. J. Afr. Stud.* 33, 137. <https://doi.org/10.2307/486390>.
- Primmer E, K.S., 2006. Goals for public participation implied by sustainable development, and the preparatory process of the Finnish National Forest Programme. *For. Policy Econ.* 8, 838–853.
- Rahman, L.M., 2003. Conflict management in participatory forest development: Insights from Bangladesh, in: XII World Forestry Congress. Quebec, Canada.
- Rahman, M.S., Sadath, M.N., Giessen, L., 2016. Foreign donors driving policy change in recipient countries: Three decades of development aid towards community-based forest policy in Bangladesh. *For. Policy Econ.* 68, 39–53. <https://doi.org/10.1016/j.forpol.2016.03.013>.
- Rai, R.K., Dhakal, A., Khadayat, M.S., Ranabhat, S., 2017. Is collaborative forest management in Nepal able to provide benefits to distantly located users? *For. Policy Econ.* 83, 156–161. <https://doi.org/10.1016/j.forpol.2017.08.004>.
- Raitio, K., Harkki, S., 2014. The disappearing chain of responsibility: Legitimacy challenges in the political governance of Finnish Forest and Park Service. *Land use policy* 39, 281–291. <https://doi.org/10.1016/j.landusepol.2014.02.008>.

- Reed, M.S., 2008. Stakeholder participation for environmental management: A literature review. *Biol. Conserv.* <https://doi.org/10.1016/j.biocon.2008.07.014>.
- Reinikainen, J., Sorvari, J., Tikkanen, S., 2016. Finnish policy approach and measures for the promotion of sustainability in contaminated land management. *J. Environ. Manage.* 1–12. <https://doi.org/10.1016/j.jenvman.2016.08.046>.
- Reinikka, R., Svensson, J., 2004. Local Capture: Evidence From a Central Government Transfer Program in Uganda*. *Q. J. Econ.* 679–705.
- Ribot, J.C., 2004. Waiting for Democracy, The Politics of Choice in Natural Resource Decentralization, Foreign Policy. United States of America. <https://doi.org/10.2307/1148781>.
- Ribot, J.C., 2003. Democratic decentralisation of natural resources: institutional choice and discretionary power transfers in Sub-Saharan Africa. *Public Adm. Dev.* 23, 53–65.
- Ribot, J.C., 2002. Democratic decentralization of natural resources: institutionalizing popular participation. World Resources Institute. Washington, DC. 35 pp.
- Ribot, J.C., 1996. Participation without representation: Chiefs, councils, and forestry law in the West African Sahel. *Cult. Surv. Q.* 20, 40–44.
- Ribot, J.C., Agrawal, A., Larson, A.M., 2006. Recentralizing While Decentralizing: How National Governments Reappropriate Forest Resources. *World Dev.* 34, 1864–1886. <https://doi.org/10.1016/j.worlddev.2005.11.020>.
- Ribot, J.C., Lund, J.F., Treue, T., 2010. Democratic decentralization in sub-Saharan Africa: its contribution to forest management, livelihoods, and enfranchisement. *Environ. Conserv.* 37, 35–44.
- Riggs, R.A., Langston, J.D., Margules, C., Boedhihartono, A.K., Lim, H.S., Sari, D.A., Sururi, Y., Sayer, J., 2018. Governance challenges in an eastern Indonesian forest landscape. *Sustain.* <https://doi.org/10.3390/su10010169>.
- Rondinelli D., Nellis, J., Cheema, G., 1983. Implementing decentralization policies. In: Cheema G, Rondinelli D (eds) *Decentralization and development: policy implementation in developing countries*. Sage, California, 9–14.
- Rondinelli, D.A., McCullough, J.S., Johnson, R.W., 1989. Analysing Decentralization Policies in Developing Countries: a Political-Economy Framework. *Dev. Change* 20, 57–87. <https://doi.org/10.1111/j.1467-7660.1989.tb00340.x>.
- Rowe G, Frewer, L., 2000. Public participation methods: a framework for evaluation. *Sci. Technol. Hum. Values* 225, 3–29.
- RRI (Rights and Resources Initiative), 2018. At a Crossroads. Consequential trends in recognition of community-based forest tenure from 2002-2017.

- Saarikoski, H., Tikkanen, J., Leskinen, L.A., 2010. Public participation in practice - Assessing public participation in the preparation of regional forest programs in Northern Finland. *For. Policy Econ.* 12, 349–356. <https://doi.org/10.1016/j.forpol.2010.02.006>.
- Sahide, M., Alif, K., Burns, S., Wibowo, A., Nurrochmat, D.R., Giessen, L., 2015. Towards State Hegemony Over Agricultural Certification : From Voluntary Private to Mandatory State Regimes on Palm Oil in Indonesia Towards State Hegemony Over Agricultural Certification : From Voluntary Private to Mandatory State Regimes on P. *JMHT* 21, 162–171. <https://doi.org/10.7226/jtfm>.
- Saito-Jensen, M., Nathan, I., Treue, T., 2010. Beyond elite capture? Community-based natural resource management and power in Mohammed Nagar village, Andhra Pradesh, India. *Environ. Conserv.* 37, 327–335. <https://doi.org/10.1017/S0376892910000664>.
- Scharpf, F.W., 1999. Governing in Europe. Effective and Democratic? *Jnl Publ. Pol.*, 12, 233–236.
- Schattschneider, E.E., 1960. *The Semisovereign People*. Rinehart and Winston, New York: Holt.
- Scheba, A., Mustalahti, I., 2015. Rethinking “expert” knowledge in community forest management in Tanzania. *For. Policy Econ.* 60, 7–18. <https://doi.org/10.1016/j.forpol.2014.12.007>
- Schlager, E., Ostrom, E., 1992. Property-rights regimes and natural resources: a conceptual analysis. *Land Econ.* 68, 249–262.
- Schneider, F., Pommerehne, W.W., 1981. Free Riding and Collective Action: An Experiment in Public Microeconomics. *Q. J. Econ.* 96, 689. <https://doi.org/10.2307/1880748>.
- Schneider, L., 2004. Freedom and unfreedom in rural development: Julius Nyerere, ujamaa vijijini, and villagization. *Can. J. African Stud. Rev. Can. des études africaines* 38, 344–392.
- Schreckenber, K., Luttrell, C., 2009. Participatory Forest Management: A Route to Poverty Reduction? *Int. For. Rev.* 11, 221–238. <https://doi.org/10.1505/for.11.2.221>.
- Schusser, C., Krott, M., Yufanyi Movuh, M.C., Logmani, J., Devkota, R.R., Maryudi, A., Salla, M., Bach, N.D., 2015. Powerful stakeholders as drivers of community forestry - Results of an international study. *For. Policy Econ.* 58, 92–101. <https://doi.org/10.1016/j.forpol.2015.05.011>.
- Sen, D., 1982. Social Forestry in Tribal Development - Uyas, Nn. *J. Rural Dev.* 1, 832–834.
- Senganimalunje, T.C., Chirwa, P.W., Babalola, F.D., 2015. Potential of Institutional Arrangements for Sustainable Management of Forests Under Co-Management with Local Forest Organisations in Mua-Livulezi Forest Reserve, Mtakataka, Malawi. *Source Int. For. Rev.* 17, 340–354. <https://doi.org/10.1505/146554815815982602>.

- Sheridan, M.J., 2004. The environmental consequences of independence and socialism in North Pare, Tanzania, 1961–88. *J. Afr. Hist.* 45, 81–102.
- Sikor, T., Nguyen, T.Q., 2007. Why May Forest Devolution Not Benefit the Rural Poor? Forest Entitlements in Vietnam's Central Highlands. *World Dev.* 35, 2010–2025. <https://doi.org/10.1016/j.worlddev.2006.11.011>.
- Singleton, B.E., 2017. What's missing from Ostrom? Combining design principles with the theory of sociocultural viability. *Env. Polit.* 26, 994–1014. <https://doi.org/10.1080/09644016.2017.1364150>.
- Smith, V.L., 1980. Experiments with a Decentralized Mechanism for Public Good Decisions. *Am. Econ. Rev.* 70, 584–599. <https://doi.org/10.1017/cbo9780511528354.027>.
- Solomon, G., 2015. Community perception on rangeland degradation: a case study in two differently settled areas of northern Ethiopia. *E3 J. Agric. Res. Dev.* 5, 101–0107.
- Sozen, S., Shaw, I., 2002. The international applicability of “new” public management: Lessons from Turkey. *Int. J. Public Sect. Manag.* 15, 475–486. <https://doi.org/10.1108/09513550210439625>
- Steel, B.S., Weber, E., 2001. Ecosystem management, decentralization, and public opinion. *Glob. Environ. Chang.* 11, 119–131.
- Steiner, S., 2008. Constraints on the Implementation of Decentralisation and Implications for Poverty Reduction- The Case of Uganda, in: And, G.C., Hartmann, C. (Eds.), *Decentralisation in Africa. A Pathway out of Poverty and Conflict?* Amsterdam University Press, Netherlands, pp. 33–72.
- Sundar, N., 2000. Unpacking the “Joint” in Joint Forest Management. *Dev. Change* 31, 255–279. <https://doi.org/10.1111/1467-7660.00154>.
- Sunderlin, W.D., Hatcher, J., Liddle, M., 2008. From exclusion to ownership? Challenges and opportunities in advancing forest tenure reform. Rights and Resources Initiative.
- Sungusia, E., Lund, J.F., 2016. Against all policies: Landscape level forest restoration in Tanzania. *World Dev. Perspect.* 3, 35–37. <https://doi.org/10.1016/j.wdp.2016.11.012>.
- Sutton, R., 1999. The policy process: an overview. Overseas Development Institute London.
- Tacconi, L., 2007. Decentralization, forests and livelihoods: theory and narrative. *Glob. Environ. Chang.* 17, 338–348.
- Thomas, J.W., Grindle, M.S., 1990. After the decision: Implementing policy reforms in developing countries. *World Dev.* 18, 1163–1181.
- Thoms, C.A., 2008. livelihoods : A critical examination of community forestry in Nepal Community control of resources and the challenge of improving local livelihoods : A critical examination of community forestry in Nepal. *Geoforum* 39, 1452–1465. <https://doi.org/10.1016/j.geoforum.2008.01.006>.

- Timsina, N.P., 2003. Promoting social justice and conserving montane forest environments: a case study of Nepal's community forestry programme. 169, 236–242.
- Tole, L., 2010. Reforms from the Ground Up: A Review of Community-Based Forest Management in Tropical Developing Countries. *Environ. Manage.* 45, 1312–1331. <https://doi.org/10.1007/s00267-010-9489-z>.
- UN, 2015. United Nations. The Millennium Development Goals Report. United Nations 72. <https://doi.org/978-92-1-101320-7>. Accessed May 4, 2016.
- UN, 2012. United Nations. The Future We Want: Outcome document adopted at Rio+20 Conference on Sustainable Development. Rio Janeiro Meet. 1–49. <https://doi.org/10.1126/science.202.4366.409>. Accessed: September 7, 2016.
- UN, 1992. United Nations Conference on Environment & Development. Rio de Janeiro, Brazil. Accessed: July 8, 2016.
- UNDP, 2012. Suledo Forest Community, Tanzania. Equator Initiative Case Study Series. Local sustainable development solutions for people, nature and resilient communities. New York, NY.
- URT, 2020. Tanzania Tourism Sector Report. Ministry of Natural Resources and Tourism. Dar es Salaam. Tanzania. <https://www.tanzaniainvest.com/tourism>. Accessed: February 6, 2020.
- URT, 2015. Tanzania Mining Industry Investor's Guide. Ministry of Energy and Minerals. Government Printer. Dar es Salaam. Tanzania.
- URT, 2013. Joint Forest Management Guidelines. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer. Dar es Salaam. Tanzania.
- URT, 2012. Participatory Forest Management in Tanzania Facts and Figures. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer. Dar es Salaam. Tanzania.
- URT, 2011. SULEDO Village Land Forest Reserve management and sustainable harvesting plan. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer. Dar es Salaam. Tanzania.
- URT, 2010. Executives Agencies (Tanzania Forest Services Agency) Establishment Order. Government Printer. Dar es Salaam. Tanzania.
- URT. 2009a. Accelerating Pro-Poor Growth in the Context of Kilimo Kwanza. Dar es Salaam, Tanzania.
- URT, 2009b. National Framework for REDD. Vice President's Office, Government Printer. Dar es Salaam. Tanzania.

- URT, 2007. Community Based Forest Management guidelines. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer. Dar es Salaam. Tanzania.
- URT, 2006. Participatory Forest Management in Tanzania Facts and Figures. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer. Dar es Salaam. Tanzania.
- URT, 2002. Forest Act of Tanzania. no.14 of 7th June 2002. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer. Dar es Salaam. Tanzania.
- URT, 2001. National Forest Programme 2001–2010. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer. Dar es Salaam. Tanzania.
- URT, 1999a. The Land Act 1999. 15th May 1999. Dar es Salaam. Tanzania. Government Printer.
- URT, 1999b. The Village Land Act 1999. No. 5 of 15th May 1999. Government Printer. Dar es Salaam. Tanzania. URT, 1999c. The Local Government Laws (Miscellaneous Amendments) Act 1999. No. 6 of 1999. Government Printer. Dar es Salaam. Tanzania.
- URT, 1998. National Forest Policy of Tanzania. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer. Dar es Salaam. Tanzania.
- URT, 1997. The National Land Policy. Government Printer. Dar es Salaam. Tanzania.
- URT, 1995. Land Policy in Tanzania. Government Printer. Dar es Salaam. Tanzania. URT, 1982. The Local Government (District Authorities) Act, Local Government Areas, Establishment, Registration and Variation of area of Local Government Authorities. Government Printer. Dar es Salaam. Tanzania.
- Vatn, A., 2005. Rationality, institutions and environmental policy. *Ecol. Econ.* 55, 203–217.
- Vaughn, S., Schumm, J. S., Sinagub, J.M., 1996. Focus Group Interviews in Education and Psychology. Sage Publications, Inc., Thousand Oaks, CA, US.
<https://doi.org/doi.org/10.4135/9781452243641>.
- Vyamana, V., 2009. Participatory forest management in the Eastern Arc Mountains of Tanzania: who benefits? *Int. For. Rev.* 11, 239–253.
<https://doi.org/10.1505/ifor.11.2.239>.
- Wanasinghe, S., 1982. Implementing Decentralization Policies and Programs: The Sri Lankan Experience. Paper presented at United Nations Center on Regional Development at Senior Level Seminar on Implementing Decentralization Policies and Programmes, Nagoya, Japan.

- Ward, C., Holmes, G., Stringer, L., 2018. Perceived barriers to and drivers of community participation in protected-area governance. *Conserv. Biol.* 32, 437–446. <https://doi.org/10.1111/cobi.13000>.
- Warner, K., 1997. Patterns of tree growing by farmers in eastern Africa. *Farms, Trees Farmers Responses to Agric. Intensif.* 90.
- Warner, M., 2000. Conflict management in community-based natural resource projects: experiences from Fiji and Papua New Guinea (No. 135). London. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.168.4002&rep=rep1&type=pdf>. Accessed April 6, 2016.
- Warner, M., Jones, P., 1998. Assessing the Need to Manage Conflict in Community-based Natural Resource Projects. *Nat. Resour. Perspect.* 35. Retrieved from <https://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/4447/35-conflict-community-based-natural-resource-projects.pdf?sequence=1&isAllowed=y>. Accessed: October 17, 2016.
- Warren, C., Visser, L., 2016. The Local Turn: An Introductory Essay Revisiting Leadership, Elite Capture and Good Governance in Indonesian Conservation and Development Programs. *Hum. Ecol.* 44, 277–286. <https://doi.org/10.1007/s10745-016-9831-z>.
- White, A., Martin, A., 2002. Who owns the world's forests? Forest Tenure and Public Forests in Transition. Center for International Environmental Law. Washington, D.C. For. Trends, Washington, DC 32.
- White, G., 2000. Why Governments Waste Natural Resources: Policy Failures in Developing Countries. By Ascher William. Baltimore, MD: Johns Hopkins University Press, 1999. 333p. \$65.00. *Am. Polit. Sci. Rev.* 94, 957–958. <https://doi.org/10.2307/2586254>.
- White, L.G., 1994. Policy analysis as discourse. *J. policy Anal. Manag.* 13, 506–525.
- Wibowo, A., Giessen, L., 2015. Land Use Policy Absolute and relative power gains among state agencies in forest-related land use politics : The Ministry of Forestry and its competitors in the REDD + Programme and the One Map Policy in Indonesia. *Land use policy* 49, 131–141. <https://doi.org/10.1016/j.landusepol.2015.07.018>.
- Winberg, E., 2010. Participatory forest management in Ethiopia: Practices and experiences. Addis Ababa.
- Winkel, G., Satirov, M., 2011. An obituary for national forest programmes? Analyzing and learning from the strategic use of “new modes of governance” in Germany and Bulgaria. *For. Policy Econ.* 13, 143–154.
- Woods, D., 1994. Making a Market: The Institutional Transformation of an African Society. By Jean Ensminger. New York: Cambridge University Press, 1992. 212p. \$49.95. *Am. Polit. Sci. Rev.* 88, 493–494.

- World Bank, 1992. Empowering villages to manage their natural resources: Rural land policy in Tanzania. A World Bank White Cover Paper. Southern Africa Department, Agriculture Operations Division.
- Ylhäisi, J., 2003. Forest privatisation and the role of community in forests and nature protection in Tanzania. *Environ. Sci. Policy* 6, 279–290.
- Zahabu, E., Eid, T., Kajembe, G.C., Mbwambo, L., Mongo, C., Sangeda, A.Z., Malimbwi, R., Katani, J., Kashaigili, J., Luoga, E., 2009. Forestland tenure systems in Tanzania: an overview of policy changes in relation to forest management. *Ina Fagrapp*. 14, 6–24.
- Zahabu, Eliakimu. 2008. Sinks and Sources: A Strategy to Involve Forest Communities in Tanzania in Global Climate Policy. PhD Dissertation, (249pp). University of Twente. Netherlands.
- Zulu, L.C., 2008. Community forest management in southern Malawi: solution or part of the problem? *Soc. Nat. Resour.* 21, 687–703.

APPENDICES

APPENDIX 1: PARTICIPANTS INFORMATION SHEET FOR QUESTIONNAIRE SURVEY (ENGLISH VERSION)



We are Kajenje Magessa (student) and Edwin Marco Igenge (Research assistant). We are collecting data for PhD (Kajenje), on Participatory Forest Management programme. The data from this research will be used for writing PhD thesis. We are collecting data using household survey. One of the purpose of holding Interview with you is to exploring understanding and experience with regard to PFM policy. This means that during the interview you will be expected to talk to me on your personal experience on PFM policy. We are highly respect and interested in any of your views and opinions on the topic of PFM programme. I would like to let you know that there are no right or wrong answers to all the questions that you will be asked to discuss and give your views and opinions.

Before starting interview we will give you a copy of consent form signed by Kajenje for you to agree with all the conditions for the interview. We would like to let you know that there is no particular risk involved in this project, however the general risks of participating in the interview is to become upset by particular questions or topic that may reminds you of a distress personal experience on PFM policy. But we will try to moderate the interview not to make you feel distressed. It is important to note that this research is not connected with any Tanzanian government PFM projects but are independent. However, the findings from this research will enable Kajenje to give advice to government representatives. It will be up to the government whether to use my research results or not. All the information you will provide from the interview will be transcribed to make sure the transcripts is anonymised so that personal identifying information from interview has been changed or removed To be successful this research needs your views and opinion on the topic to be discussed. On the other hand, Kajenje commit to share research results with you when they will be ready. The research project has been approved by the Bangor University, College of Environmental Sciences and Engineering Ethics Committee.

Contacts:

Ms. Kajenje Magessa

Bangor University, UK; Mobile; 0789710840

Mr. Edwin Marco

Mobile; 0686856224

APPENDIX 2: PARTICIPANTS INFORMATION SHEET FOR QUESTIONNAIRE SURVEY (SWAHILI VERSION)



Mimi Kajenje Magessa, Mwanafunzi kutoka chuo kikuu cha Bangor nchini Uingereza nimeambatana na Ndugu Edwin Marco ambaye ni mtafiti msaidizi. Tunakusanya takwimu kwa ajili ya masomo ya Kajenje Magessa, yanayohusiana na usimamizi wa misitu kwa njia shirikishi. Takwini zitakazo patikana katika utafiti huu zitatumika kwa ajili ya kuandaa report ya masomo ya Kajenje. Tunakusanya takwimu kwa njia ya **dodoso**. Tunafanya mahojiano na wewe ili kuweza kujua uelewa na uzoefu wako kuhusiana na usimamizi wa misitu kwa njia shirikishi. Tutakapo anza kuongea na wewe tunatarajia kupata maelezo kulingana na uzoefu ulionao kuhusiana na usimamizi wa misitu kwa njia shirikishi. Naheshimu mawazo yako na maoni yako utakayoyatoa. Napenda kukuhakikishia kuwa hakuna jibu la uongo au la ukweli kuhusiana na maswali nitakayo kuuliza ili kupata mawazo na maoni yako.

Kabla hatujaanza mahojiano na wewe tutakupa nakala ya ukubali iliyosainiwa na Kajenje ili kupata ukubali wako kwa taratibu zote za mahojiano tutakayofanya na wewe. Ni muhimu kufahamu kuwa utafiti huu hauna mahusiano yoyote na mradi wa usimamizi wa misitu kwa njia shirikishi unaosimamiwa na serikari ya Tanzania. Lakini matokeo ya utafiti huu yatamusaidia Kajenje kutoa ushauri kwa serikari. Itakuwa juu ya Serikari kutumia au kutokutumia ushauri huo. Tarifa zote utakazotoa katika utafiti huu, nitaziandaa kwa njia ambayo itafanya mtu asiweze kutambua ni nani ametoa tarifa hizo. Ili kufanikisha zoezi la utafiti huu, mawazo na maoni yako yanahitajika sana. Pia Kajenje naahidi kutoa tarifa ya utafiti huu pindi atakapokuwa amemaliza kuandaa report ya utafiti huu. Utafiti huu umethibitishwa na Chuo Kikuu cha Bangor.

Mawasiliano.

Ms .Kajenje Magessa

Chuo Kikuu cha Bangor, Uingereza

Simu: 0789710840

Mr. Edwin Mark

Simu: 0686856224

APPENDIX 3: CONSENT FORM FOR QUESTIONNAIRE SURVEY (ENGLISH VERSION)

Consent form to be used for HH being interviewed, it can either being read out by researcher/ research assistant and consent recorded on a recorder or given to respondents for them to read where appropriate and sign. This will be done at the start of the interview exercise.

Introduction to the Research:

The research team has 1 researcher and 1 research assistant. In this exercise of HH interviews we are interested in finding out more about how PFM approach is implemented at village level. We have asked you to participate because you're among implementers/ beneficiaries of the PFM approach. Therefore we are interested to know your involvement in PFM activities and access to PFM benefits and rules. Some of the information from the research may be published in reports and papers. The interview will take about 1 hour but you are free to stop it at any time. Before we start we want to make sure that you understand the research we are doing and what we will do with the information we collect.

Consent Script

1. We have given you some information about this research particularly on the composition of research team, purpose of the study, what data will be collected, how the data will be used and what your participation will require of you (i.e. the subjects to be covered and the time that will be required). Did we make things clear? Do you want to ask us any questions about the study?
2. We assure you that we will keep all the information you give us confidential as far as the law allows. Any notes or recordings will be kept safe in encrypted back-up devices. We will not share your personal details or personal views with anyone else except supervisors. Is that okay?
3. Some of the information that you will give us may be published, but your real name will not be used in relation to any of the information you have provided, unless you tell us clearly that you want us to use your real name. Is that okay?
4. You should know that even though we will avoid including identifying information in any of our publication, there is still a possibility that people will recognise you by the things you say. If at any time you feel concerned about what you are saying being disclosed, please feel free to stop and talk to me about it. If you say something that you later think should be deleted from our discussion notes, just let me know. Is that clear?
5. If you mention anything you do not want us to publish, please say so and we will follow your request. Is that okay?
6. You can stop this interview at any time, without giving us any reason. Okay?
7. If you agree, I would like to take some photos that I might use them in presentations or publications of information from the research. Is this okay?
8. Do you have any further questions? Can we start the interview now?

Signed

Date

(Interviewee)

Signed

Date

(Researcher)

APPENDIX 4: CONSENT FORM FOR QUESTIONNAIRE SURVEY (SWAHILI VERSION)

NAKALA YA UKUBALI (DODOSO)

Nakala ya ukubali itakayotumika katika mahojiano na kaya inaweza ikasomwa na mtafiti au mtafiti msaidizi ikaingizwa kwenye kinasauti. Pale ambapo itahitajika mhojiwa atapewa nakala asome na kisha aweke sahihi.

Utangulizi:

Team ya utafiti ina mtafiti mmoja na matafiti msaidizi mmoja. Katika zoezi hili la dodoso, tungependa kujua jinsi usimamizi wa misitu kwa njia shirikishi unavyotekelezwa. Tumekuomba ushiriki katika zoezi hili kwa sababu u miongoni wa wahusika katika hii programme ya usimamizi wa misitu kwa njia shirikishi. Kwa hiyo tungependa kujua ushiriki wako katika usimamizi wa misitu shirikishi. Baadhi ya takwimu hizi zitachapishwa katika tarifa na maandiko ya kisayansi. Dodoso litachukua saa 1 lakini una uhuru wa kutoendelea na zoezi utakapojisikia. Kabla hatujaanza dodoso letu tunaomba ufahamu kuhusu utafiti huu pamoja na takwimu tutakazo zikusanya.

Makubaliano

1. Tumekupatia baadhi ya tarifa kuhusu utafiti wetu, kina nani watahusika, malengo ya utafiti, na takwimu tutako zikusanya, jinsi tutakavyozitumia, jinsi gani utashiriki. Imeeleweka?
2. Tunapenda kukuhakikishia kuwa tutahifadhi kwa siri tarifa utakazotupa kadri sheria itakavyoruhusu. Tutatumia encrypted back-up devices, hatuta sambaza tarifa zako kwa mtu yeyote isipokuwa kwa supervisor. Je imeeleweka?
3. Baadhi ya tarifa utakazotupatia zinaweza zikachapishwa lakini jina lako halisi halitatumika katika tarifa utakazotupatia, labda kama utaturuhusu kutumia jina lako halisi. Je imeeleweka?
4. Unatakiwa kuelewa kuwa ingawa tutazingatia kuepuka tarifa ambazo zitakutambulisha katika machapisho yetu lakini kunaweza kuwa na uwezekano wa watu kukutambua kulinga na kile utakacho kisema. Kama wakati wowote utahisi tarifa unazotoa hazitatunzwa kwa siri, tafadhari jisikie huru kuacha kuendelea na mahojiano. Na kama kuna tarifa yoyote uliyotowa na ukahitaji ifutwe, jisikie huru kutoa tarifa. Je imeeleweka?
5. Kama umetaja kitu chochote na hauitaji kichapishwe, tafadhari jisikie huru kusema na tutatekeleza ombi lako. Je imeeleweka?
6. Nitachukua tarifa hizi kwa kutumia tablet na kinasauti. Ili baadae niweze kusikiliza vizuri na kuandika kwa makini bila kusahau tarifa yeyote. Ni mimi (Kajenje) pamoja na walimu wangu ndo tutakuwa na uwezo wa kuona tarifa zitakazokusanywa. Je imeeleweka?
7. Unaweza kuacha kuendelea na mahojiano wakati wowote utakapojisikia kufanya hivyo bila kutoa sababu yoyote. Je imeeleweka?
8. Kama utakubali, ningependa kuchukua picha pamoja na wewe ambazo nitazitumia katika kuwasilisha tarifa zitakazotokana na utafiti huu. Je imeeleweka?
9. Je una swali lolote? Tunaweza tukaanza dodoso?

Sahihi

Tarehe

Mhojiwa

Sahihi

Tarehe

Mtafiti

APPENDIX 5: PARTICIPANTS INFORMATION SHEET FOR FOCUS GROUP DISCUSSION (ENGLISH VERSION)



We are Kajenje Magessa (student) and Edwin Marco Igenge (Research assistant). We are collecting data for PhD (Kajenje Magessa) on Participatory Forest Management programme and the data from this research will be used for writing PhD thesis for Kajenje. We are collecting data using focus group discussion. One of the purpose of holding a focus group discussion with you is to closely replicate how we express views and form opinions in real life with respect to implementation of PFM programme. This means that during the discussion you will be expected to talk to each on the topic under discussion as well as to the moderator and your free to indicate or give your views when you agree or disagree with each other. We are highly respect and interested in any of your views and opinions on the topic. We would like to see the focus group to be a lively discussion each individual need to be active engaging in the discussion. We would like to let you know that there are no right or wrong answers to all the questions that you will be asked to discuss and give your views and opinions.

Once every one has arrived the moderator of the focus group discussion will give you a copy of consent form signed by moderator for you to agree with all the conditions for focus group discussion. I would like to let you know that there is no particular risk involved in this project, however the general risks of participating in the focus group discussion is to become upset by particular questions or topic that may reminds you of a distress personal experience or by individuals comments or behaviour but we try to moderate the discussion not to make any one feel distressed. It is important to note that this research is not connected with any Tanzanian government PFM projects but are independent. However, the findings from this research we will enable Kajenje to give advice to government representatives. It will be up to the government whether to use my research results or not. All the information you will provide from the focus group discussion will be transcribed by Kajenje to make sure the transcripts is anonymised so that personal identifying information from the focus groups has been changed or removed. To be successful this research needs your views and opinion on the topic to be discussed. On the other hand, I commit to share my research results with you when they will be ready. The research project has been approved by the Bangor University, College of Environmental Sciences and Engineering Ethics Committee.

Contacts:

Ms. Kajenje Magessa

Bangor University, UK; Mobile; 0789710840

Mr. Edwin Marco

Mobile; 0686856224

APPENDIX 6: PARTICIPANTS INFORMATION SHEET FOR FOCUS GROUP DISCUSSION (SWAHILI VERSION)



Mimi Kajenje Magessa, Mwanafunzi kutoka chuo kikuu cha Bangor nchini Uingereza nimeambatana na Ndugu Edwin Marco ambaye ni mtafiti msaidizi. Tunakusanya takwimu kwa ajili ya masomo ya Kajenje Magessa, yanayohusiana na usimamizi wa misitu kwa njia shirikishi. Takwimu zitakazo patikana katika utafiti huu zitatumika kwa ajili ya kuandaa report ya masomo ya Kajenje. Tunakusanya takwimu hizi kwa kutumia **majadiliano ya Vikundi**. Katika majadiriano haya tutaongelea kuhusu Usimamizi wa misitu kwa njia shirikishi. Hivyo basi tutapenda kusikia mawazo na maoni yenu juu sera hii ya usimamizi wa misitu kwa njia shirikishi. Kwa hiyo nategemea katika majadala huu mtajadiliana wenyewe kwa wenyewe na mtafiti pia. Katika majadiliano haya kila mtu atakuwa na nafasi sawa ya kukubali au kukataa mawazo au maoni yatakayotolewa na mtu mwingine. Tunaheshimu mawazo yako na maoni yako utakayoyatoa. Tunategema kuona kila mmoja wenu anashiriki kikamilifu katika majadala huu, inaweza ikawa kwa kutoa maoni au mawazo. Napenda kukuhakikishia kuwa hakuna jibu la uongo au la ukweli kuhusiana na maswali nitakayo kuuliza ili kupata mawazo na maoni yako.

Mara baada ya kila mmoja kuwasili tutawapa nakala ya ukubali iliyosainiwa na Kajenje ili kupata ukubali wa kila mmoja kutokana na taratibu zote za mahojiano tutakayofanya. Ni muhimu kufahamu kuwa utafiti huu hauna mahusiano yoyote na mradi wa usimamizi wa misitu kwa njia shirikishi unaosimamiwa na serikari ya Tanzania. Lakini matokeo ya utafiti huu yatamusaidia Kajenje kutoa ushauri kwa serikari. Itakuwa juu ya Serikari kutumia au kutokutumia ushauri huo. Tarifa zote utakazotoa katika utafiti huu, nitaziandaa kwa njia ambayo itafanya mtu asiweze kutambua ni nani ametoa tarifa hizo. Ili kufanikisha zoezi la utafiti huu, mawazo na maoni yako yanahitajika sana. Pia Kajenje anaahidi kutoa tarifa ya utafiti huu pindi atakapokuwa amemaliza kuandaa report ya utafiti huu. Utafiti huu umethibitishwa na Chuo Kikuu cha Bangor.

Mawasiliano.

Ms. Kajenje Magessa

Chuo Kikuu cha Bangor, Uingereza, Simu: 0789710840

Mr. Edwin Mark - Simu: 0686856224

APPENDIX 7: CONSENT FORM FOR FOCUS GROUP DISCUSSION (ENGLISH VERSION)

To be used for groups of community members who will be participating in FGDs. Consent form will be read out at the start of the exercise and consent recorded on a recorder. Participant names will be recorded at the bottom of the sheet with signatures if participants are literate.

Introduction to the Research

The research team has 1 researcher and 1 research assistant. In group discussions, we are interested in finding out more about forest governance in Participatory Forest Management. We have asked you to participate because you're among targeted groups that are expected to benefit from the PFM approach (e.g. women and poorest individuals without position at village)/ because you're official local institution responsible for implementing the PFM approach at local level (for Village Environmental Committee). Some of the information from the research may be published in reports and papers. The exercise will take about 1 hours but you are free to leave at any time. Before we start we want to make sure that you understand the research we are doing and what we will do with the information we collect.

Consent Script

1. We have given you some information about this research particularly on the composition of research team, purpose of the study, what data will be collected, how the data will be used and what your participation will require of you (i.e. the subjects to be covered and the time that will be required). Did we make things clear? Do you want to ask us any questions about the study?
2. We assure you that we will keep all the information you give us confidential as far as the law allows. Any notes or recordings will be kept safe in encrypted back-up devices. We will not share your personal details or personal views with anyone else except supervisors. Is that okay?
3. Some of the information that you will give us may be published, but your real name will not be used in relation to any of the information you have provided, unless you tell us clearly that you want us to use your real name. Is that okay?
4. You should know that even though we will avoid including identifying information in any of our publication, there is still a possibility that people will recognise you by the things you say. If at any time you feel concerned about what you are saying being disclosed, please feel free to stop and talk to me about it. If you say something that you later think should be deleted from our discussion notes, just let me know. Is that clear?
5. If you mention anything you do not want us to publish, please say so and we will follow your request. Is that okay?
6. You can stop this interview at any time, without giving us any reason. Okay?
7. We would like to record this discussion with a digital audio recorder. That way we can listen to the recording afterwards and catch things you say that we might not fully understand during the discussion, or might otherwise forget. Only members in research team and supervisors will be able to listen to the recording. Do you give us permission to record?
8. If you agree, we would like to take some photos that we might use them in presentations or publications of the information from the research. Is this okay?
9. Do you have any further questions? Can we start the interview now?

Date:

Village name:

Researcher name(s),Signature.....

Participant names:

Signature

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

APPENDIX 8: CONSENT FORM FOR FOCUS GROUP DISCUSSION (SWAHILI VERSION)

NAKALA YA UKUBALI

Nakala ya ukubali itakayotumika katika mahojiano na kaya inaweza ikasomwa na mtafiti au mtafiti msaidizi ikaingizwa kwenye kinaso sauti. Pale ambapo itahitajika mhojiwa atapewa nakala asome na kisha aweke sahihi.

Utangulizi

Team ya utafiti ina mtafiti mmoja na mtafiti msaidizi mmoja. Katika majadiliano ya vikundi, tungependa kujua ushiriki na uzoefu wako katika usimamizi wa misitu shirikishi. Tumewaomba mushiriki kwenye majadala huu, kwa sababu ninyi ni moja kati ya kundi liliokusudiwa kufaidika na sera hii ya usimamizi wa misitu kwa njia shirikishi katika ngazi ya kijiji. Baadhi ya takwimu hizi zitachapishwa katika tarifa na maandiko ya kisayansi. Majadala huu utachukua saa 1 lakini una uhuru wa kutoendelea na zoezi utakapojisikia. Kabla hatujaanza majadala huu tunaomba ufahamu kuhusu utafiti huu pamoja na takwimu tutakazo zikusanya.

Makubaliano

10. Tumekupatia baadhi ya tarifa kuhusu utafiti wetu, kina nani watahusika, malengo ya utafiti, na takwimu tutako zikusanya, jinsi tutakavyozitumia, jinsi gani utashiriki. Imeeleweka?
11. Tunapenda kukuhakikishia kuwa tutahifadhi kwa siri tarifa utakazotupa kadri sheria itakavyoruhusu. Tutatumia encrypted back-up devices, hatuta sambaza tarifa zako kwa mtu yeyote isipokuwa kwa supervisor. Je imeeleweka?
12. Baadhi ya tarifa utakazotupatia zinaweza zikachapishwa lakini jina lako halisi halitatumika katika tarifa utakazotupatia, labda kama utaturuhusu kutumia jina lako halisi. Je imeeleweka?
13. Unatakiwa kuelewa kuwa ingawa tutazingatia kuepuka tarifa ambazo zitakutambulisha katika machapisho yetu lakini kunaweza kuwa na uwezekano wa watu kukutambua kulinga na kile utakacho kisema. Kama wakati wowote utahisi tarifa unazotoa hazitatunzwa kwa siri, tafadhari jisikie huru kuacha kuendelea na mahojiano. Na kama kuna tarifa yoyote uliyotowa na ukahitaji ifutwe, jisikie huru kutoa tarifa. Je imeeleweka?
14. Kama umetaja kitu chochote na huitaji kichapishwe, tafadhari jisikie huru kusema na tutatekeleza ombi lako. Je imeeleweka?
15. Tutachukua tarifa hizi kwa kutumia kinaso sauti, Ili baadae Kajenje aweze kusikiliza vizuri na kuandika kwa makini bila kusahau tarifa yeyote. Ni mimi (Kajenje) pamoja na walimu wangu ndo tutakuwa na uwezo wa kuona tarifa zitakazokusanywa. Je imeeleweka?
16. Unaweza kuacha kuendelea na mahojiano wakati wowote utakapojisikia kufanya hivyo bila kutoa sababu yoyote. Je imeeleweka?
17. Kama utakubali, ningependa kuchukua picha pamoja na wewe ambazo nitazitumia katika kuwasilisha tarifa zitakazotokana na utafiti huu. Je imeeleweka?
18. Je una swali lolote? Tunaweza tukaanza dodoso?

Tarehe: _____

Jina la Kijiji: _____

Jina la mtafiti:

Sahihi

1. _____
2. _____
3. _____

4. _____
5. _____
6. _____
7. _____
8. _____

APPENDIX 9: PARTICIPANTS INFORMATION SHEET FOR KEY INFORMANTS (ENGLISH VERSION)



I'm Kajenje Magessa a PhD student at Bangor University, U.K. I'm collecting data for my PhD on implementation of Participatory Forest Management programme. The data from this research will be used for writing my PhD thesis. I'm collecting data using Key Informant Interviews. One of the purpose of holding Key Informant Interview with you is to exploring understanding, experience and construction of things that you have some kind of personal stake with regard to PFM policy. This means that during the interview you will be expected to talk to me on your personal experience on PFM policy. I'm highly respect and interested in any of your views and opinions on the topic of PFM programme. I would like to let you know that there are no right or wrong answers to all the questions that you will be asked to discuss and give your views and opinions.

Before starting interview I will give you a copy of consent form signed by me for you to agree with all the conditions for the interview. You will also be asked to complete a short demographic questionnaire. It is important to note that this research is not connected with any Tanzanian government PFM projects but are independent. However, the findings from this research we will enable me to give advice to government representatives. It will be up to the government whether to use my research results or not. All the information you will provide from the interview will be transcribed to make sure the transcripts is anonymised so that personal identifying information from interview has been changed or removed To be successful this research needs your views and opinion on the topic to be discussed. On the other hand, I commit to share my research results with you when they will be ready. The research project has been approved by the Bangor University, College of Environmental Sciences and Engineering Ethics Committee.

Contacts; Ms. Kajenje Magessa

Bangor University, UK; Mobile; 0789710840

APPENDIX 10: PARTICIPANTS INFORMATION SHEET FOR KEY INFORMANTS (SWAHILI VERSION)



Naitwa Kagenje Magessa, mwanafunzi kutoka chuo Kikuu cha Bangor kilichoko nchini Uingereza. Nakusanya takwimu kwa ajili ya masomo yangu zinazohusiana na usimamizi wa misitu kwa njia shirikishi. Takwimu hizi nitazitumia katika kuandaa report ya masomo yangu. Nakusanya takwimu hizi kwa watu ambao wana uelewa kuhusiana na usimamizi wa misitu kwa njia shirikishi. Nafanya mahojiano na wewe ili kuweza kujua uelewa, uzoefu na uwezo wa vitu ambavyo una mamulaka navyo kuhusiana na usimamizi wa misitu kwa njia shirikishi. Naheshimu mawazo yako na maoni yako utakayoyatoa. Napenda kukuhakikishia kuwa hakuna jibu la uongo au la ukweli kuhusiana na maswali nitakayo kuuliza ili kupata mawazo na maoni yako.

Kabla sijaanza mahojiano na wewe nitakupa nakala ya ukubali iliyosainiwa na mimi ili kupata ukubali wako kwa taratibu zote za mahojiano nitayofanya na wewe. Nitaomba pia kupata maelezo kuhusu taarifa zako binafsi. Ni muhimu kufahamu kuwa utafiti huu hauna mahusiano yoyote na mradi wa usimamizi wa misitu kwa njia shirikishi unaosimamiwa na serikari ya Tanzania. Lakini matokeo ya utafiti huu yatanisaidia kutoa ushauri kwa serikari. Itakuwa juu yao kutumia au kutokutumia ushauri nitakao toa. Tarifa zote utakazotoa katika utafiti huu, nitaziandaa kwa njia ambayo itafanya mtu asiweze kutambua ni nani ametoa tarifa hizo. Ili kufanikisha zoezi la utafiti huu, mawazo na maoni yako yanahitajika sana. Pia naahidi kutoa tarifa ya utafiti huu pindi nitakapokuwa nimemaliza kuandaa report ya utafiti huu. Utafiti huu umethibitishwa na Chuo Kikuu cha Bangor.

Mawasiliano.

Ms. Kagenje Magessa

Chuo Kikuu cha Bangor, Uingereza

Simu: 0789710840

APPENDIX 11: CONSENT FORM FOR KEY INFORMANTS (ENGLISH VERSION)

Consent form to be used for key informants being interviewed, it can either being read out by researcher or given to key informants for them to read depending on their level of literate. This will be done at the start of the interview exercise.

Introduction to the Research:

In this exercise of key informant interviews I'm interested in finding out more about forest governance in Participatory Forest Management. I have asked you to participate because you're among individuals who were involved in PFM policy formulation, official staff implementing PFM policy at national/district/ village levels. Some of the information from the research may be published in reports and papers. The interview will take about 1 hour but you are free to stop it at any time. Before we start I want to make sure that you understand the research I'm doing and what I will do with the information that I'm collecting.

Consent Script

1. I have given you some information about this research particularly on the purpose of the study, what data will be collected, how the data will be used and what participation will require of you (i.e. the subjects to be covered and the time that will be required). Did I make things clear? Do you want to ask me any questions about the study?
2. I assure you that I will keep all the information you give me confidential as far as the law allows. Any notes or recordings will be kept safe in encrypted back-up devices. I will not share your personal details or personal views with anyone else except my supervisors. Is that okay?
3. Some of the information that you will give me may be published, but your real name will not be used in relation to any of the information you have provided, unless you tell me clearly that you want me to use your real name. Is that okay?
4. You should know that even though I will avoid including identifying information in any of my publication, there is still a possibility that people will recognise you by the things you say. If at any time you feel concerned about what you are saying being disclosed, please feel free to stop and talk to me about it. If you say something that you later think should be deleted from our discussion notes, just let me know. Is that clear?
5. If you mention anything you do not want me to publish, please say so and I will follow your request. Is that okay?
6. You can stop this interview at any time, without giving me any reason. Okay?
7. I would like to record this interview with a digital audio recorder. That way I can listen to the recording afterwards and catch things you say that I might not fully understand during the interview, or might otherwise forget. Only I and my supervisor's will be able to access the information that I will record. Do you give me permission to record?
8. If you agree, I would like to take some photos that I might use them in presentations or publications of information from the research. Is this okay?
9. Do you have any further questions? Can we start the interview now?

Signed

Date

(Interviewee)

Signed

Date

(Researcher)

APPENDIX 12: CONSENT FORM FOR KEY INFORMANTS (SWAHILI VERSION)

NAKALA YA UKUBALI

Nakala ya ukubali itakayotumika katika mahojiano na kaya inaweza ikasomwa na mtafiti au mtafiti msaidizi ikaingizwa kwenye kinasa sauti. Pale ambapo itahitajika mhojiwa atapewa nakala asome na kisha aweke sahihi.

Utangulizi:

Katika zoezi hili la udodosaji, ningependa kujua jinsi usimamizi wa misitu kwa njia shirikishi unavyotekelezwa. nimekuomba ushiriki katika zoezi hili kwa sababu u miongoni mwa wahusika katika hii programme ya usimamizi wa misitu kwa njia shirikishi. Kwa hiyo ningependa kujua ushiriki wako katika usimamizi wa misitu shirikishi. Baadhi ya takwimu hizi zitachapishwa katika tarifa na maandiko ya kisayansi. Dodoso litachukua dk saa 1 lakini una uhuru wa kutoendelea na zoezi utakapojisikia. Kabla hatujaanza dodoso letu tunaomba ufahamu kuhusu utafiti huu pamoja na takwimu tutakazo zikusanya.

Makubaliano

1. Nimekupatia baadhi ya tarifa kuhusu utafiti wangu, malengo ya utafiti, na takwimu nitakozikusanya, jinsi nitakavyozitumia, jinsi gani utashiriki. Imeeleweka?
2. Napenda kukuhakikishia kuwa nitahifadhi kwa siri tarifa utakazonipa kadri sheria itakavyoruhusu. nitatumia encrypted back-up devices, na sita sambaza tarifa zako kwa mtu yeyote isipokuwa kwa supervisor. Je imeeleweka?
3. Baadhi ya tarifa utakazonipatia zinaweza zikachapishwa lakini jina lako halisi halitatumika katika tarifa utakazonipatia, labda kama utaniruhusu kutumia jina lako halisi. Je imeeleweka?
4. Unatakiwa kuelewa kuwa ingawa nitazingatia kuepuka tarifa ambazo zitakutambulisha katika machapisho yang, lakini kunaweza kuwa na uwezekano wa watu kukutambua kulinga na kile utakacho kisema. Kama wakati wowote utahisi tarifa unazotoa hazitatunzwa kwa siri, tafadhari jisikie huru kuacha kuendelea na mahojiano. Na kama kuna tarifa yoyote uliyotowa na ukahitaji ifutwe, jisikie huru kutoa tarifa. Je imeeleweka?
5. Kama umetaja kitu chochote na hauitaji kichapishwe, tafadhari jisikie huru kusema na tutatekeleza ombi lako. Je imeeleweka?
6. Nitachukua tarifa hizi kwa kutumia kinasa sauti. Ili baadae niweze kusikiliza vizuri na kuandika kwa makini bila kusahau tarifa yeyote. Ni mimi (Kajenje) pamoja na walimu wangu ndo tutakuwa na uwezo wa kuona tarifa zitakazokusanywa. Je imeeleweka?
7. Unaweza kuacha kuendelea na mahojiano wakati wowote utakapojisikia kufanya hivyo bila kutoa sababu yoyote. Je imeeleweka?
8. Kama utakubali, ningependa kuchukua picha pamoja na wewe ambazo nitazitumia katika kuwasilisha tarifa zinazotokana na utafiti huu. Je imeeleweka?
9. Je una swali lolote? Tunaweza tukaanza dodoso?

Sahihi

Tarehe

Mhojiwa

Sahihi

Tarehe

Mtafiti



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Does Tanzanian participatory forest management policy achieve its governance objectives?

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ABSTRACT

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. Building on existing analyses that highlight the limited successes of PFM, this study focuses on the equitability and efficacy of PFM governance in Tanzania. Previous work notes several shortcomings of PFM, often stressing the issue of elite capture - our paper explores this issue in further detail by applying a mixed methods approach. Specifically, by using in-dividual rather than household level surveys we can better assess the extent of marginalization and whether wealth and gender are determining factors. We assess whether PFM has achieved devolution by comparing observed outcomes to stated policy objectives and the decentralization framework developed by Agrawal and Ribot (1999). We surveyed 227 individuals, in two case study villages adjacent to SULEDO Village Land Forest Reserve (Kiteto District), conducted six focus group discussions and 10 key informant interviews to answer these research questions: (a) To what extent are management institutions representative and inclusive of the local community? (b) To what extent are local communities empowered to influence decision-making and access benefits? (c) To what extent is the local forest management institution accountable to local communities relative to superior authorities under PFM? In the case study villages, PFM is characterised by a low rate of resident and Village Environmental Committee member engagement in committee elections, formal village assemblies, PFM training, formulation and first-approval of by-laws. Low levels of satisfaction were also found with the mechanisms of benefit sharing and the level of accountability of management institution leaders. We found that SULEDO has become dominated by a very restricted "elite within an elite", comprising only zonal leaders and close associates. Overall, we found a significant gap between observed outcomes and PFM policy objectives, and therefore a failure to fully achieve meaningful devolution.

1. Introduction

Before the 1980s centralized forest policies in many countries excluded local communities, while often failing to prevent degradation of forest resources (Haller et al., 2008). In the early 1980s, inclusion of local communities in forest management increased through the adoption of 'Participatory Forest Management' (PFM) in many countries (Tole, 2010). PFM was promoted with the intention of improving livelihoods, forest condition and governance, but studies to date have documented mixed ecological and livelihood impacts (e.g. Persha and Blomley, 2009; Schreckenberg and Luttrell, 2009; Bowler et al., 2012; Lambrick et al., 2014; Lund et al., 2018).

Reviewing a range of international cases, Dressler et al. (2010)

found that implementation of PFM excluded marginalised groups from access, use, and control of valued forest resources, suggesting serious shortcomings in social justice terms. Ribot et al. (2010) similarly contend that in a majority of cases across sub-Saharan Africa, local PFM institution members are not representative of the local population. Reporting of inequalities is common across several studies, with local elites seen to dominate both decision-making and benefit-capture (Coulibaly-Lingani et al., 2011; Lund and Saito-Jensen, 2013; Adhikari et al., 2014; Green and Lund, 2015; Luintel et al., 2017; Etongo et al., 2018; Das, 2019). Jacob and Brockington (2017) further explain this in a Tanzanian context, with reference to the lack of accountability and transparency of the local institutions, enabling favouritism and manipulation to occur by politically powerful and well connected

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individuals.

Other analyses detail how PFM is characterised by partially elected community representatives (Chinangwa et al., 2016; García-López, 2019), with a lack of capacity (Mohammed et al., 2017), transparency in handling funds, and accountability to their constituents (Mollick et al., 2018; Coleman and Fleischman, 2012). High costs of forest re-sources (e.g. timber) are also seen to exclude the poorest from benefiting from PFM (Kumar, 2002; Rai et al., 2017). This situation has increased intra-and inter-community conflicts (Gross-Camp et al., 2019). In other instances, PFM policies and central government transferred limited powers to local communities (Chomba et al., 2015; Das, 2019), and devolved power is contested between districts and villages (Sungusia and Lund, 2016). Active involvement of foresters in PFM may also reduce the sense of ownership and power that local communities may exercise (Scheba and Mustalahti, 2015). Overall, the efficacy and equitability of PFM governance frameworks are central to the failings described (e.g. Chomba et al., 2015; Chinangwa et al., 2016; Jacob and Brockington, 2017; Maraseni et al., 2019; Mollick et al., 2018; Das, 2019; García-López, 2019; Kabir et al., 2019).

A key point here is the need to explicitly compare outcomes to stated policy objectives, which whilst evident in some studies (Chomba et al., 2015; Mollick et al., 2018; Das, 2019), is not always the case. This has prompted critique from Lund et al. (2018), who question the level of policy understanding shown in some evaluations. In addition to direct policy comparison (Chomba et al., 2015; Mollick et al., 2018; Das, 2019), best-practice frameworks have been used to guide a number of existing analyses. Here, Agrawal and Ribot's, 1999 framework is particularly notable in its guidelines for democratically elected and downwardly accountable local actors, and equitable benefit sharing (see e.g. Chomba et al., 2015; Chinangwa et al., 2016; Mutune and Lund, 2016; Das, 2019).

To assess the efficacy of PFM implementation, existing studies draw on a range of data, derived from both qualitative and quantitative assessment to provide both the richness and breadth of insight required. A notable weakness of previous studies that we aim to address here is the focus of surveys at the household level. Both household and individual surveys aim to generalise the findings to a wider population, however household surveys may lead to an unrepresentative sample, particularly in terms of gender as household heads (and thus the respondents addressed) are normally men. In order to assess whether PFM has achieved devolution, we need studies that ensure all the different socio-economic characteristics of a heterogeneous community are considered, which may influence respondents' engagement with, and knowledge and perceptions of PFM. This study aims to achieve this by employing an individual-level survey to residents and VEC members, where respondents (residents) were selected using proportionate stratified random sampling based on gender and wealth status. The aim was to examine whether knowledge and perceptions of PFM differed strongly between residents and to explore whether there was evidence of elite capture in PFM. The survey measured the extent of all devolution components (i.e. representativeness, empowerment and accountability of actors). A quantitative survey also enables us comprehensively determine the extent to which villagers have been involved in the PFM processes. Qualitative data were also collected from surveys, focus group discussion and key informant interviews to explicitly address the perspectives of potentially marginalised groups. The combination of qualitative and quantitative data is critical here to both capturing and understanding the issues at hand. Qualitative reporting adds more analytical depth, to more fully explain how and why elite capture has occurred, whilst the quantitative gives us a more rigorous means of understanding who that elite are. Our analysis compares observed outcomes to stated policy objectives and the decentralization framework developed by Agrawal and Ribot (1999). The research addressed the following questions; (a) To what extent are management institutions representative and inclusive of the local community? (b) To what extent are local communities empowered to influence decision-making

and access benefits? (c) To what extent is the local forest management institution accountable to local communities relative to superior authorities under PFM? Across all the research questions we were also interested to understand how individual characteristics such as gender and wealth affect people's satisfaction and participation empowered by PFM. We conducted our study in Tanzania because it is amongst the top three countries in Africa that had made most progress in terms of numbers of communities involved and hectares of forest involved in PFM, hence many countries borrowed Tanzania PFM experience (e.g. Uganda, Kenya, Ghana, Nigeria, Madagascar, Malawi, Mozambique, Guinea, Namibia) (Alden-Wily, 2001). We purposively selected the case study from a wider stratified random sample of PFM communities in Tanzania because of its history of donor support. It might therefore be expected to represent a "best-case" scenario of PFM in Tanzania, relatively well-resourced compared to many other PFM projects.

1.1. Analytical framework

We assess whether PFM in Tanzania has achieved devolution, by comparing observed outcomes to stated policy objectives; and actors, empowerment and accountability elements in the decentralization framework developed by Agrawal and Ribot (1999). The underlying contention of the framework is that the PFM approach should be assessed by looking at which actors are involved, the degree of meaningful powers transferred to local actors, and how those actors are downwardly and upwardly accountable to constituents and government respectively. This is further detailed below.

1.2. Representativeness

Meaningful devolution requires that members of the relevant institutions are elected by, and representative of, all community members, with special consideration of marginalised groups, and indeed representativeness and accountability are inextricably linked (Agrawal and Ribot, 1999). PFM in Tanzania is intended to achieve this (URT, 1998. PS 3.p.27; URT, 2002, s.33.p.52 and s.38.p.59; URT, 2007, p.5). Mogoi et al. (2012) found that there was at least some level of resident participation in elections, however, they document that PFM principles are not well implemented in practice.

1.3. Empowerment

Empowerment refers to (1) capacity to manage resources; (2) authority to make decisions and rules, and then approve and implement these rules; (3) the degree to which communities adjacent to forests can decide about the use and access of forest resources (Agrawal and Ribot, 1999). PFM aims to achieve devolution by: promoting awareness of forest rules; enabling access to forest benefits for all members of the community; and fully transferring utilization rights, management, decision-making and enforcement powers to elected local representatives (Agrawal and Ribot, 1999; URT, 2002.s.16.p. 17. S.33.p.35; URT, 2007. p.21). Moreover, devolving powers to make decisions and rules without devolving powers to enforce them, limits devolution (Agrawal and Ribot, 1999). Several studies have documented that communities and local institutions in PFM lack awareness of forest rules and their enforcements (Chhetri et al., 2012; Senganimalunje et al., 2015). Some studies (e.g. Lund and Treue, 2008), report more positive findings, where local actors feel empowered by enhanced knowledge of forest rules, and consequently dare to challenge their leaders when PFM policy and legislation has been contravened. Other scholars reported that local institutions lack capacity to address power struggles (Mogoi et al., 2012), and conflicts (Senganimalunje et al., 2015) which arise due to a lack of inclusiveness, and elite capture in decision making processes Saito-Jensen et al., 2010; Chhetri et al., 2013; Mutune et al., 2017; Liu et al., 2018). PFM has created a new arena for power struggles between different interest groups (Kellert et al., 2000; Mustalahti

and Lund, 2009; Mogoi et al., 2012), and thus implementation of PFM policy and legislation at a local level can be more dominated by coercion than cooperation (Ribot et al., 2010; Schusser et al., 2015). In addition, many PFM programmes fail to achieve access to forest benefits for all community members (Kellert et al., 2000; Chhetri et al., 2012; Mogoi et al., 2012; Nielsen and Meilby, 2013), and the tightened control of forest resource utilization in PFM is frequently most costly to the poorest and marginalised groups (Ribot, 2004; Chhetri et al., 2012; Kumar et al., 2015) and characterised by marginalization of minorities (Persson and Prowse, 2017; Rai et al., 2017). PFM has also been found to weaken the level of support that the central government could provide to local institutions (Gobeze et al., 2009; Mustalahti and Lund, 2009; Persha and Blomley, 2009; Mohammed and Inoue, 2012; Ameha et al., 2014; Dyer et al., 2014; Bekele and Ango, 2015). Specifically, Mustalahti and Lund (2009) argue that benefits-sharing arrangements prior to PFM were more effective in motivating central government to support local communities.

1.4. Accountability

PFM is expected to improve forest governance if democratically elected bodies are both downwardly and upwardly accountable (Agrawal and Ribot, 1999; Larson, 2002; Ribot, 2004; URT, 2002, s. 33.p.35; URT, 2007.p. 21). This may help to counteract local elite capture (Lund and Saito-Jensen, 2013; Agrawal and Ribot, 1999). In order to understand the nature of accountability, it is necessary to make a detailed assessment of how and to whom actors are accountable (Agrawal and Ribot, 1999). The most commonly cited mechanisms used to enforce accountability are electoral processes; third party monitoring; auditing and evaluations; public reporting and existence of sanctions that are enforced (Ackerman, 2004). Furthermore, transparency and accountability in handling of revenues and expenditures is also important for accountability (Zulu, 2008). However, most studies demonstrate that PFM is characterised by a lack of downward and upward accountability (e.g. Mustalahti and Lund, 2009; Mohammed and Inoue, 2012; Persson and Prowse, 2017) and distrust of local institutions by local communities (Nielsen and Meilby, 2013).

2. Methods

2.1. Study area

In Tanzania, PFM was introduced in the early 1990s, following this a number of policies and legislation were reviewed to grant legal rights for villages to own and manage forest resources that are on village land (URT, 1998; URT, 2002). In 2006, it was estimated that 3,672,854 ha were under some form of PFM (URT, 2006). The area under PFM continued to increase so that in 2012 PFM covered 7,758,788 ha (URT, 2012).

The study was undertaken in the Kiteto district and the fieldwork was conducted from February–September 2017. Ethnic composition in the district includes Maasai (32%), Gogo (27%), Rangi (18%) and a mixture of smaller groups (23%) e.g. Kamba, Nguu, Bena, Kaguru, Hehe, Sandawi, Burunge, and W-Arusha (Lissu and von Mitzlaff, 2007). The main land uses include grazing, agriculture, settlements, forest conservation, beekeeping, timber harvesting, charcoal making, firewood and honey gathering while the largest land use category is grazing (LAMP, 2005). Traditionally, the Maasai and Kamba are pastoralists and all the remaining ethnic groups are agriculturalists. However, this division has become less clear-cut due to land scarcity and modern lifestyles, which have restricted movements of the pastoralists (Lissu and von Mitzlaff, 2007).

The district has one Village Land Forest Reserve (VLFR) called SULEDO. SULEDO was established in the mid-1990s with great facilitation from LAMP, who also played a significant role in formulating SULEDO rules (Pers Com, ZEC leader). Since its establishment, SULEDO

has been supported by donors until 2012.¹ In 2002 SULEDO VLFR re-ceived international recognition and was awarded the inaugural UNDP Equator Prize (UNDP, 2012). Currently the forest is managed by 13 villages under Community Based Forest Management (CBFM), a form of PFM where the forest is owned by democratically elected Village Governments who are the users and managers of forest resources (Alden Wily, 1997). In 2007, the forest was officially gazetted as VLFR (ORGUT, 2010). SULEDO covers 1674.16 km², 10% of the district area. The forest is located at about 126 km South East from Kiteto district headquarters. SULEDO VLFR is rich in miombo woodlands and dominated by *Combretum molle* and *Dalbergia melanoxylon*, *Julbernardia globiflora* and *Brachystegia microphylla* (Malimbwi, 2000). SULEDO was purposively selected for this study from the class of PFM most common in Tanzania: miombo woodlands, managed for conservation and production, restricted to those that had received donor support. We selected SULEDO because it is a flagship case, having received donor support for a long time. The rationale for selecting a site that had re-ceived support is that it would be expected to represent a “best-case scenario” for PFM in Tanzania, and therefore a useful test of how far PFM has succeeded in achieving devolution and policy objectives under the most promising circumstances.

2.2. Sampling design

Two villages and four sub villages were selected using stratified random sampling (see Appendices A, B and C). Lists of all adults (aged 18 or over) in each sub village were obtained from key informants, and stratified according to gender and then wealth status using wealth indicators developed with input from key informants, including size of land owned, number of livestock owned, income sources, roof and wall materials for house owned (see Appendices I and J), which are also commonly used in the literature (Vyamana, 2009; Hargreaves et al., 2007). Residents² (n = 180) were selected using stratified random sampling in each sub-village in order to ensure that the sample in each stratum was in proportion to the stratum in the population (Table 1). All 47 Village Environmental Committee (VEC) members were purposively selected. A total of 227 respondents (residents and VEC members) undertook our questionnaire survey. In cases where selected residents were absent or unwilling to participate in the study, the next resident on the list was selected for an interview. A total of 6 selected respondents were unavailable and 1 declined to undertake the survey. VEC members are residents in a leadership position, and their responsibility is to coordinate PFM activities at local level. VEC members may be expected to have greater knowledge of PFM than residents. Residents consisted of individuals in the community without any leadership position in PFM.

2.3. Quantitative methods

Quantitative data were collected using a questionnaire survey with open and closed questions to investigate knowledge of the programme, participation in PFM activities, and perceptions of the legitimacy, trust and accountability of the committee (see Appendix D). The questionnaires for the study were first developed in English and then translated into Swahili and Maasai. Quantitative data were analysed using R version 3.4.4 (R Core Team, 2018), Chi-square tests were employed to test for differences in perceptions and opinion between residents and VEC members, since VEC members may be expected to be more aware and engaged with PFM than residents. A logistic regression

²⁰ Source: Regional and district natural resources officers and Chairperson of Zonal Environmental Committee in the study area.

²¹ Residents comprise adult individuals who are resident in an area, and excludes those with positions on the Village Environmental Committee who were selected separately.

Table 1: Number of respondents interviewed in each study village.

Village name	Adult population			Residents interviewed			Committee members interviewed		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Sunya	2607	1370	1237	146	68	78	33	21	12
Engang'ungare	616	275	341	34	14	20	14	10	4
Total	3223 (100%)	1645 (51%)	1578 (49%)	180 (100%)	82 (46%)	98 (54%)	47	31 (66%)	16 (34%)

model was used to analyse the relationship between individuals' characteristics and their participation in PFM activities. The ordinal re-gression model was performed to gain insight into how individual characteristics were associated with the level of satisfaction with the mechanism of sharing benefits in PFM. The best supported models were selected using the Akaike Information Criterion (AICc).

2.4. Qualitative methods

Qualitative methods were also employed acknowledging that survey data cannot capture all the complexities of social relations in the area. Key informant interviews were undertaken with 10 key informants at community level. This included village leaders, VEC leaders, the Zonal Environmental Committee (ZEC) chairperson, and village government chairpersons, who were in position during establishment of the SULEDO VLFR. Key informant interviews aimed to gain a richer perspective and triangulate information derived from the questionnaire survey (see Appendix E). Focus group discussions were used as a way of gaining collective sense on how PFM is implemented and gain accounts that are more naturalistic than those collected in questionnaire surveys (Mitchell and Branigan, 2000). Focus group discussions were undertaken with marginalised groups (women and the poorest) and members of VEC separately in each of the study villages after the questionnaire survey (6 focus group discussions with 3–8 individuals per focus group). Focus group discussions involved relatively unstructured questions, but the discussion was guided to focus on issues raised by the questionnaire survey and key informant interviews (see Appendix F). Some qualitative data was also obtained from the individual surveys through open ended response questions, which allowed respondents to provide fuller explanations if they wished. All interviews and focus group discussions were audio recorded and transcribed, Nvivo 10 software was employed to support thematic analysis. Overall, for the different data assessed, we compared observed outcomes to stated policy objectives and the decentralization framework developed by Agrawal and Ribot (1999) based on the three elements of devolution (i.e. representativeness, empowerment and accountability of actors).

3. Results

3.1. Representativeness of actors in the SULEDO PFM programme

Tanzania's policies require PFM to be managed by village level committees elected by all village members through a village assembly (the meeting of all adult members held at least four times a year), (URT, 1982, s.55.p.32), and to be representative of all parts of the community, with special consideration of marginalised groups (URT, 1998, PS 3.p.27; URT, 2002, s.33.p.52 and s.38.p.59; URT, 2007, p.5 and 12). This is in line with Agrawal and Ribot's (1999) decentralization framework. However, we found in practice, implementation of PFM may diverge from the PFM policy. In the SULEDO VLFR, management of the forest is under three levels of Environmental Committees. The overall management is under the ZEC. ZEC leaders (Chairperson, Secretary and Treasurer) are elected by ZEC members through the ZEC assembly, with 2/3 of all ZEC members. The ZEC chairperson must be elected from amongst ZEC members, while the ZEC secretary may be elected from outside of the ZEC members (URT, 2011, s.3.p.14). The ZEC is formed

by the chairperson, secretary and treasurer of each VEC, elected by VEC members (at least one of these three VEC leaders must be female) which in turn composed of two members of different genders from each Sub-village³ Environmental Committee (SEC), who are elected by the village assembly. The SEC is nominated by sub-village assembly and approved by the village assembly. (SULEDO management and harvesting plan, URT, 2011, s.3.p 7 and 10). This is in line with PFM policy (see Fig. 1). The village government is responsible for enforcing election rules at village level and the ZEC chairperson is accountable to village governments and is responsible for enforcing election rules at zonal level (URT, 2011, s.3.p 14 and 15).

However, awareness of who manages SULEDO VLFR was low: 19% of VEC members and 38% of other residents were not aware of the committee(s) responsible for managing SULEDO VLFR (Fig. 2a). Awareness of how the VEC assumed their positions and when the last committee election took place, was also low amongst both VEC members and other residents. Half of the residents expressed ignorance as to how VEC members assume their position and even 15% of VEC members did not know how they became a member of the committee. 2% of VEC members reported that they were appointed by village government leaders, 2% that they were appointed by sub village chairpersons, while another 2% reported that they were appointed by forest guides (Fig. 2b).

Only 27% of residents and 21% of VEC members stated correctly that members of the VEC are elected through the village assembly. 44% of residents and 22% of VEC members did not know when the last committee election was. 15% of residents and 24% of VEC members stated correctly that the committee election was conducted in 2017, while 20% of residents and 24% of VEC members stated that the last election was conducted in 2016. Perhaps more importantly, only 18% of residents and 60% of committee members participated in the last election (Fig. 3).

3.2. Empowerment of residents and local institutions in the SULEDO PFM programme

In a PFM programme all community members are expected to have access to resources, participate in capacity building, decision making, formulation of by-laws and first approval of by-laws. For example, Tanzanian PFM policies require committee members to be trained in forest management skills with an understanding that these committee members will then train their constituents (URT, 1998, PS.3 and 5; URT, 2002, s.16.p. 17. s.33.p.35; URT, 2007, p.21). Participation in village assemblies and training was low amongst both groups, but was higher amongst VEC members (49% and 19% respectively) than other residents (31% and 6% respectively, $p = .02$ and $p = .003$, Fig. 3). Those who did participate in trainings were not necessarily involved in making decisions over management and utilization of SULEDO VLFR.

"ZEC leaders organise committee elections in order to show the government that they're managing SULEDO accordingly. But in practice we are not involved in any PFM activities and there are some individuals who are not

A "Sub-village" is a recognised sub-part of a registered village (URT, 2007, p. 5).

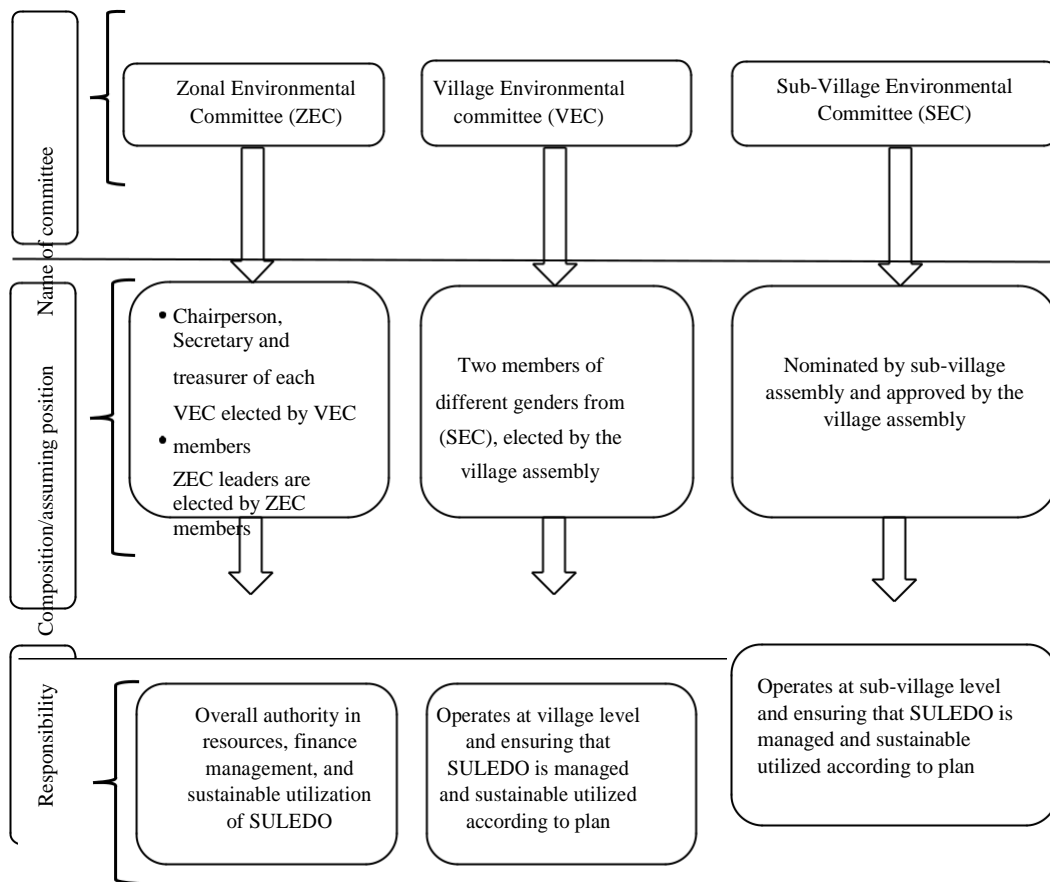


Fig. 1. Committee composition, their responsibility and how they should assume their position, according to PFM policy (URT, 2002; URT, 2007; URT 2011).

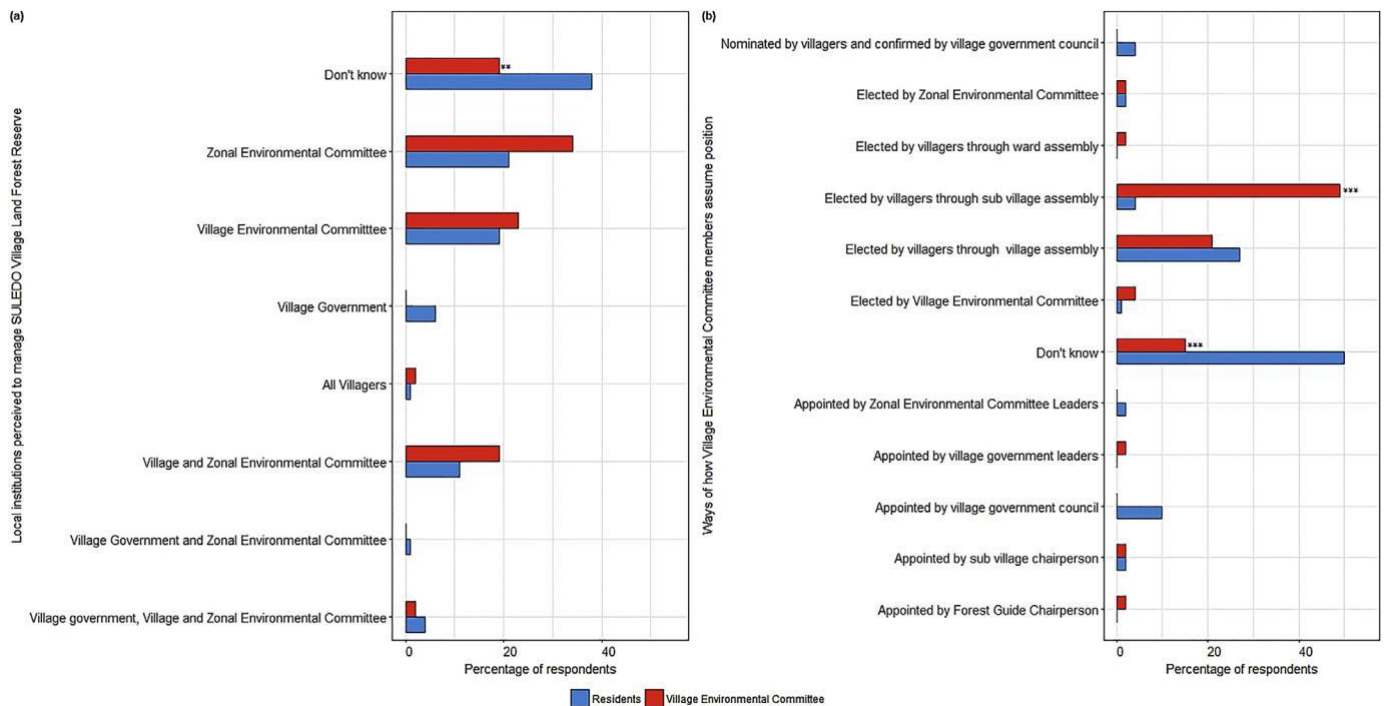


Fig. 2. Actors. (a) who manages the SULEDO Village Land Forest Reserve? (b) how do VEC members assume position. % of respondents choosing each option (multiple options could be chosen), divided into VEC members and other residents. Chi-square test was used to compare VEC members' and other residents' perceptions, at 1% (***) and 5% (**) level of significance.

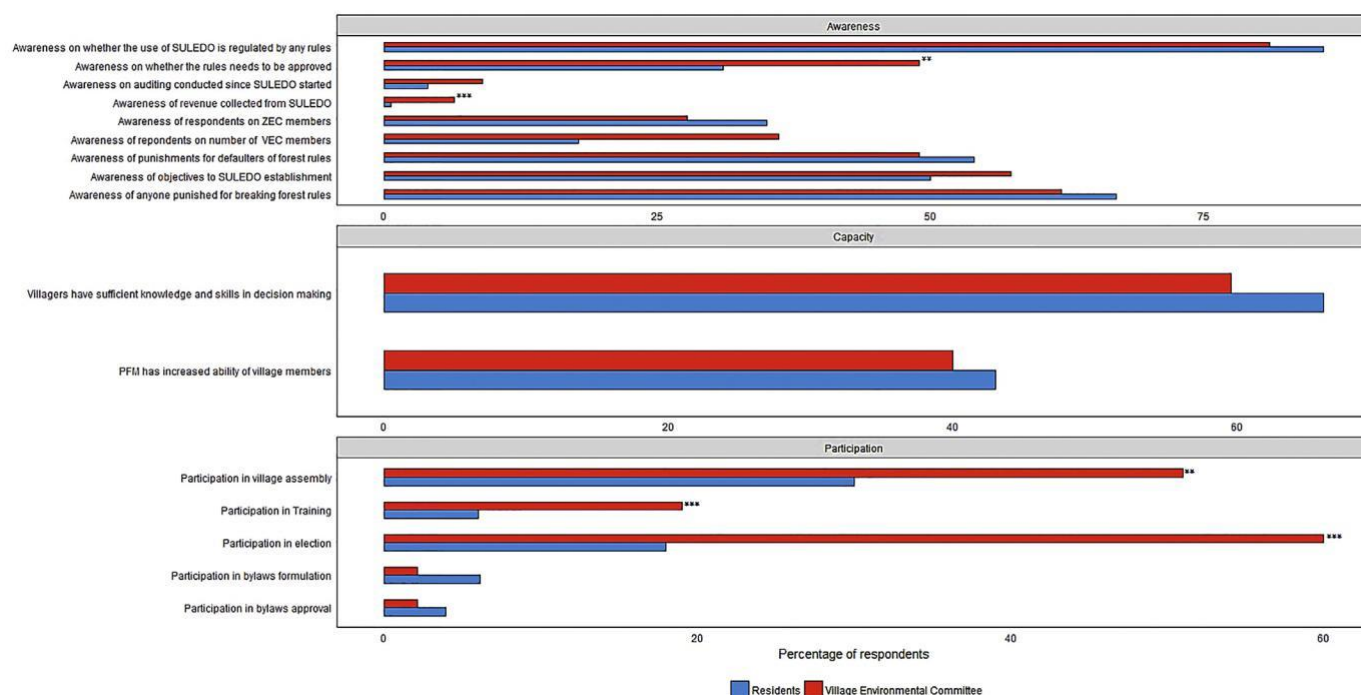


Fig. 3. Percentage of respondents who 1) are aware of forest rules, need of rules approval, audit conducted, revenue collected, ZEC members, number of VEC members, punishment for defaulters, SULEDO objectives, anyone punished for breaking rules; 2) perceived to have capacity in decision making and whether PFM has increased ability of village members to participate in management of the village forest; 3) participated in village assembly, training, election, by-laws formulation and approval; (only one option could be chosen). Note: chi – square test was used to compare VEC members' and other residents' perceptions, at 1% (***) and 5% (**) level of significance.

committee members but have personal ties with ZEC leaders who are actively involved. For example, when PFM training comes for VEC members, ZEC leaders tend to assign non VEC members to undertake the training with the agreement of sharing the allowance given during training. For example, if they're paid 15000 TZS (6.52 dollars) per day then the participant will take 10000 TZS (4.35 dollars) and ZEC leader will be given 5000 TZS (2.17dollars)" (FGD 1, VEC members).

Nonetheless, a majority of residents and VEC members felt they had the knowledge and skills to participate in decision making (Fig. 3). The ZEC chairperson is responsible for ensuring that all decisions made by the ZEC are communicated to residents through the VEC and the village government concerned (URT, 2011, s.3.p10). The VEC is responsible for ensuring that SULEDO VLFR is used according to the management and sustainable harvesting plans and should inform residents through vil-lage governments about all decisions made regarding the forest, by the ZEC (URT, 2011, s.3.p 7 and 8). However, only a few VEC members were actively involved in training, village assembly, by-laws formula-tion and approval, suggesting an elite within the elite (i.e. the ZEC leaders) and hence raising concerns about who has control. Focus Group Discussions with women and VEC members as well as key in-formant interviews with Village chairperson and Executive Officer revealed that decisions in SULEDO VLFR are made only by ZEC leaders.

"We are aware that all decisions in SULEDO VLFR are supposed to be made through the village assembly but we know nothing about what is going on in SULEDO VLFR. All the decision are made by VEC and ZEC and we have never been invited to attend any decision making village assembly or participate in any PFM activities. The forest is continuing to be harvested but we are not benefiting with the funds obtained from harvests" (FGD 2, women). Village chairperson noted as follows.

"We are not informed and involved in any decision making with regard to management and utilization of SULEDO VLFR, because the decisions are made by only the committee [ZEC] and village government leaders and the forest is continuing to be harvested without the consent of either the VEC or

residents" (FGD 1).

The Village leader stated emphatically the following:

"As a village leader I'm responsible for ensuring that all regulations and rules are well implemented but according to PFM policies I'm not part of ZEC meeting and I have not been informed about any decision made by the ZEC" (KI3, Village Executive Officer).

One of the village chairpersons summed up the situation as follows: "The

ZEC is supposed to inform residents about any decision made about SULEDO VLFR for approval, however, currently not all decisions made by ZEC are taken to either residents or the village government office. Likewise as a village leader I'm currently not invited to ZEC meetings that concern decision making over harvesting of the forest" (KI2, Village chairperson). Overall, access to forest resources did not differ significantly between residents and VEC members ($p = .359$, Fig. 4a). However, re-sidents were more likely to access firewood, building materials and medicinal plants than VEC members ($p < .001$, Fig. 4a). Although the results show access to forest resources is high for both residents and VEC members, their access was mainly to low value forest resources. The access to timber was low and did not differ significantly between residents and VEC members: only 22% of residents and 11% of VEC members accessed timber ($p = .08$, Fig. 4a). Further evidence provided in interviews, survey and focus groups enhances our insights here, suggesting that a restricted elite (that excludes both ordinary residents and VEC members) may be dominating access to higher value timber resource harvesting; working against the PFM objective of equitable benefit sharing.

"No permit is provided to residents to access timber from SULEDO VLFR and those who manage to access timber bought the timber from ZEC but also had personal ties to ZEC leaders. You can have money but you won't be able to access timber" (FGD 1, VEC members).

One respondent in the individual survey put it this way:

"I can afford to buy timber from SULEDO but it has been difficult to get timber for roofing my house, due to excessively complicated informal pro-cedures that ZEC leaders brought. For example, recently I saw ZEC leaders

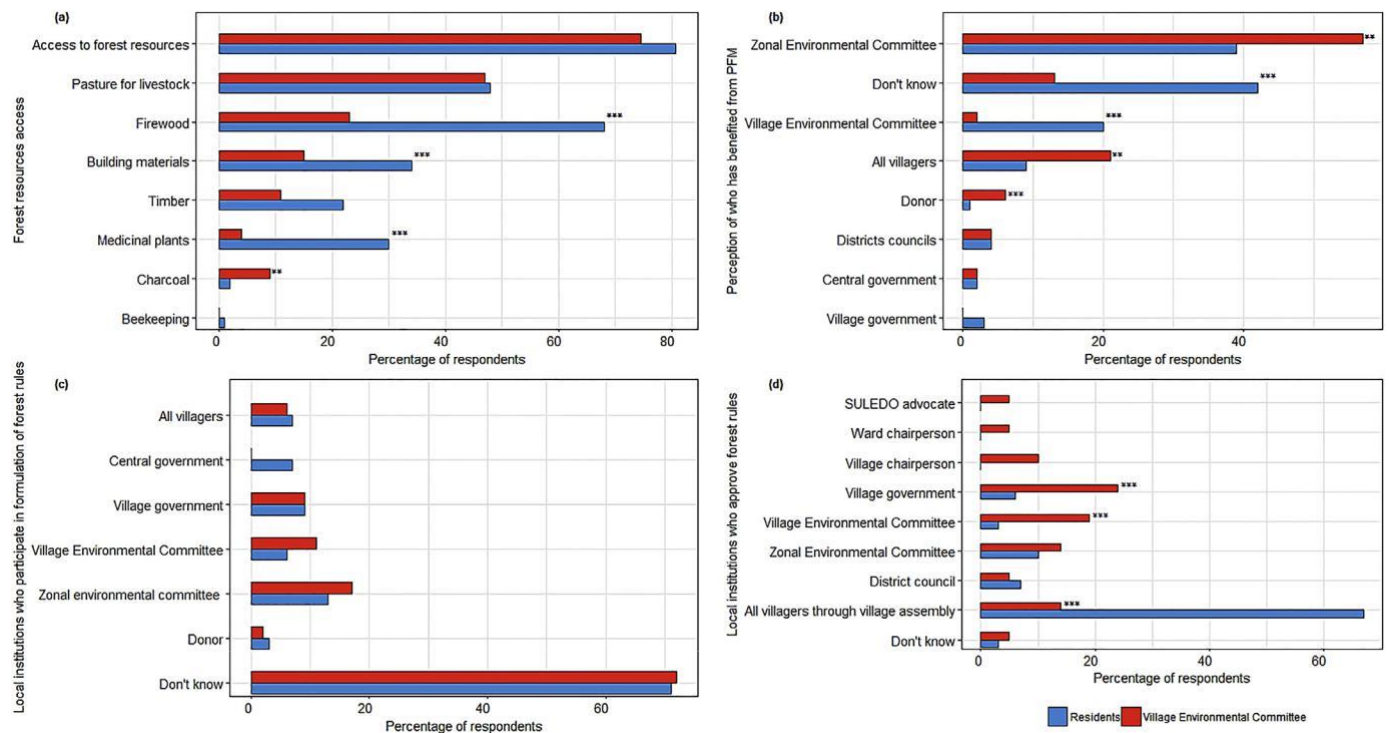


Fig. 4. Empowerment; (a) Forest resources accessed from SULEDO VLFR; (b) who has benefited from SULEDO VLFR; (c) Which local institution participated in the formulation of rules regulating forest use; (d) Which local institution is supposed to approve forest rules; % of respondents choosing each option (multiple options could be chosen). Note: chi-square test was used to compare residents and VEC responses, at 1% (***) and 5% (**) level of significance.

were supervising harvest in the forest, then I went to ZEC office to ask if they were selling timber because I wanted timber for my house but I was answered that there is no timber. This situation forced me to buy the timber in Kilindi district" (Individual survey, Respondent 208).

"We are not benefitting from the funds and timber obtained from SULEDO VLFR, only ZEC and village leaders are the ones benefitting. We think it's not possible for village leaders to remain silent if they were not benefitting with funds obtained from SULEDO VLFR" (FGD3, poorest in-dividuals).

The SULEDO VLFR plan specifies that all villagers should benefit from the programme (URT, 2011, s.2.p5). Residents (20%) were more likely to state that the VEC had benefitted than the VEC members (2%) ($p = .003$, Fig. 4b) while 42% did not know who benefitted. VEC members (57%) were more likely to state that the ZEC had benefitted than residents (39%, $p = .022$), and only 9% of residents and 21% of VEC members felt that all villagers had benefitted. (Fig. 4b).

Furthermore, VEC members were more likely to report that donors had benefitted from the SULEDO VLFR than residents ($p = .007$, Fig. 4b). The SULEDO VLFR plan specifies clearly that profits obtained from SULEDO VLFR should be distributed equally amongst the villages that own the forest (URT, 2011, s.6.p16). However, satisfaction with the mechanism of benefits sharing is low amongst both residents and VEC members, as well as amongst both male and female residents (Fig. 5). Interviews with village and VEC chairpersons and a focus group with VEC members revealed that they felt that revenue from SULEDO VLFR benefits only ZEC leaders. In addition VEC leaders are members of ZEC but they were not actively involved in all PFM activities with regards to the utilization and management of SULEDO. VEC members claimed that ZEC leaders and the VEC chairperson are the ones benefitting most.

"We are now approaching three years without receiving any share of benefits from SULEDO VLFR though the forest is continuing to be harvested" (K12, Village chairperson).

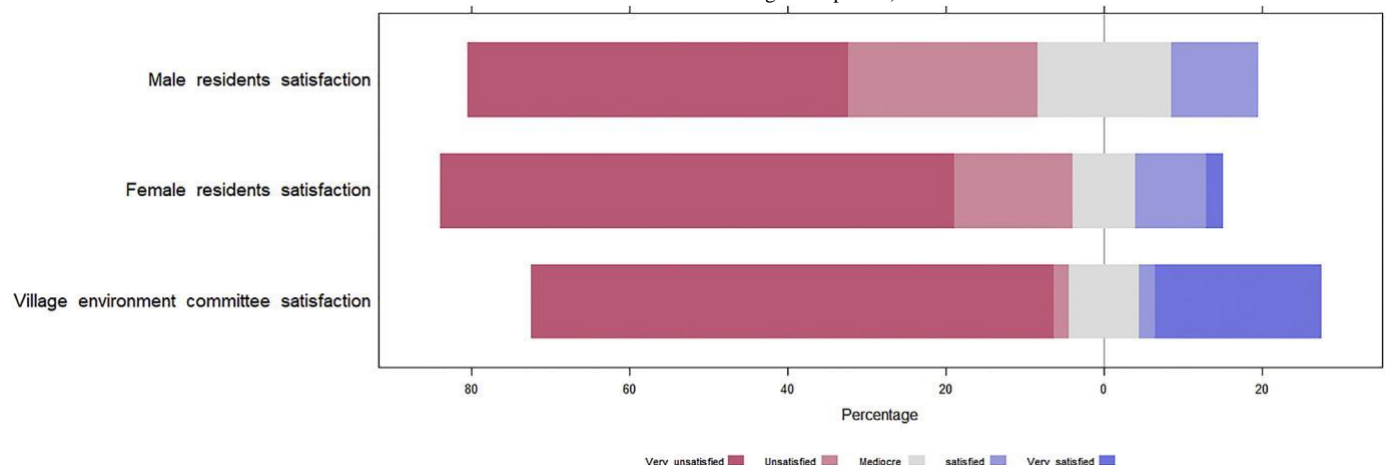


Fig. 5. Percentage of residents and VEC members expressing different levels of satisfaction with the mechanism of sharing benefits.

The leader of a VEC reported the situation as follows:

“As a VEC leader and ZEC member I'm supposed to report all decisions about SULEDO to villagers through village government leaders but this is not happening. No decisions made by ZEC leaders are taken to other ZEC members. Currently villagers are not benefiting from revenue obtained from SULEDO. The last time for villages to receive a share of revenue from the forest was in 2004, where by each village received 1,000,000 TZS (USD 434). Since 2004, it is about 13 years though timber harvest is going on, but ZEC leaders are not reporting to other ZEC members, VEC, village leaders and residents, the revenue and expenditure from SULEDO. I'm not informed, even villagers are not informed, on how SULEDO vehicle and tractor were obtained” (K4, VEC leader).

ZEC leaders benefit more from SULEDO, because they normally made SULEDO decisions without involving and informing other ZEC members, VEC members, village government or residents. We are not informed on how the revenue from the forest has been spent, since ZEC leaders are not re-ported revenue or expenditure to VEC, village government and residents. In addition, VEC chairperson is also benefiting with SULEDO, since it is im-possible for ZEC leaders to start harvesting timber without communicating with VEC chairperson of the village concerned (FGD1, VEC members).

Rules and regulations that support the management plan (fines, sanctions) must be formulated and first approved by villagers through the village assembly (Forest Act: s. 34 (4); KI3). A majority of residents (71%) and VEC members (72%) expressed ignorance as to who for-mulated the rules (Fig. 3c). Only 7% of residents and 6% of VEC members stated that the rules were formulated by all villagers (Fig. 4c). In practice, an interview with the ZEC leader revealed that villagers were not involved in formulating the forest rules, all forest rules were substantially formulated by the donor in the first place.

“The rules regulating forest use were formulated by the donor (LAMP) and first approved by ZEC” (K11, ZEC leader).

Moreover, participation in by-law formulation was low for both residents (6%) and VEC members (2%) (Fig. 2).

As might be expected, VEC members (49%) were more likely to be aware of the need for rules to be approved than residents (31%) ($p = .018$, Fig. 3), however, awareness was quite low in both groups. Perceptions of who should approve rules differed significantly between residents and VEC members. Residents are more likely to believe (correctly) that rules should be approved by all villagers ($p = .005$, Fig. 4d), while VEC members were more likely to believe that rules should be approved by the village government ($p = .008$, Fig. 4d). Participation in by-laws approval was very low for both residents (4%) and VEC members (2%) (Fig. 3).

Although respondents have relatively good awareness that the use of SULEDO is regulated by rules, they lack awareness of how these rules operate. 54% of residents and only 49% of VEC members were aware that SULEDO VLFR has sanctions that are enforced for breaking the programme rules. These punishments include penalty fees, imprisonment, and confiscation of tools. Both residents and VEC members were lacking precise information (according to PFM policy) of the sanctions for rule breaking. 67% of residents and 62% of committee members were aware that individuals who fail to comply with the rules and regulations for the programme have been punished (Fig. 3).

Logistic regression models were used to predict participation in village assemblies and in elections based on individual characteristics (see Appendix G for model-averaged coefficients). Even the best sup-ported models (as measured by AICc) had low explanatory power (adjusted r-squared 20% and 16% respectively). However, there is some evidence that being older and male increases the likelihood of partici-pating in a village assembly, while committee members were more likely to participate in elections. In addition, an ordinal regression model was used to predict the level of satisfaction with the mechanism of sharing benefits based on individual characteristics (see Appendix K for model-averaged coefficients), but even the best supported model (by AICc) had very low explanatory power (adjusted r-squared 6%).

3.3. Actors' accountability in the SULEDO PFM programme

The VEC in Engang'ungare village has a total of 16 members and in Sunya 36 members. However, awareness of their identity, and that of current ZEC members, was low amongst both residents and VEC members (Fig. 3).

“We as members of the committee, we do not know each other, this discussion you're conducting with us is our first time to be called to discuss about SULEDO VLFR” (FGD1).

The SULEDO VLFR plan requires leaders of the VEC to be elected through the VEC assembly, by a minimum of more than half of all the members (URT, 2011, s.3.p7). During focus group discussions with VEC members, it was noted that most VEC members did not participate in such elections:

“We didn't vote for chairperson, secretary and treasurer because we were not informed” (FGD1).

VEC members are supposed to stay in position for five years until the next election (URT, 2011, s.3.p7: K11). 71% of residents and 43% of VEC members expressed ignorance of the terms for VEC members. Furthermore, some of the village government leaders lacked awareness of the terms for VEC members. PFM policies require the VEC to be accountable to the village gov-ernment and village assembly (URT, 2002, s. 33.p.35; URT, 2007.p. 21). SULEDO VLFR plan specifies that the VEC must report monthly, quarterly and annually to the village government on management, revenue, permits, compensation, harvest and expenditure (URT, 2011, s.4 and 6.p12 and 16). The village government must then report this information to residents (URT, 2011, s.4 and 6.p13 and 16). However, there was low awareness amongst both residents and VEC members as to whom VEC members were accountable (see Fig. 6a), with qualitative data affirming that VEC accountability is lacking.

“Since I was elected to be in this position [Village leader], I have never received any reports from either the ZEC or VEC on management and the revenue accrued from the forest and I have no power to question them”. (K12).

Moreover, only 1% of residents and 6% of VEC members were aware of how much revenue has been collected so far from SULEDO VLFR. The amount of revenue mentioned included 880, 1320, 13,200 US Dollars, much lower than the 23,760 US Dollar reported by key informants from ZEC. Withdrawal of funds from the SULEDO account must be approved by residents through village assemblies. Likewise the revenue from SULEDO should be spent according to a revenue and expenditure budget prepared by ZEC and approved by residents through village assembly (URT, 2011, s.6.p16). However, 75% of re-sidents and 98% of VEC members did not know how the revenue from the forest has been used (Fig. 6c). In an interview, the ZEC leader stated that revenue from SULEDO has been spent on village development projects, operational costs for the ZEC office and 10% of the revenue was shared with the district council. Only 3% of residents and no VEC members reported spending in this way. Residents (22%) were more likely to state that revenue from the forest has been spent on village development projects than VEC members (2%, $p = .004$) (Fig. 6c). A forest official at district level noted that SULEDO was supposed to share 20% of the forest revenue with the district council but this had never happened in practice.

The ZEC is also required to employ an auditor from the private sector to check the SULEDO VLFR accounts once a year (URT, 2011, s.6.p16), but this does not appear to be happening.

Audits were conducted twice per year when the donors were supporting the programme, however no audits have been conducted since donor left 2012” (K11).

The majority of residents stated that they did not trust the VEC, and that the VEC was very poor, or poor, in decision making and not ac-countable to, or legitimate representatives of, the village members (Fig. 7).

The SULEDO VLFR management plan is particularly designed to

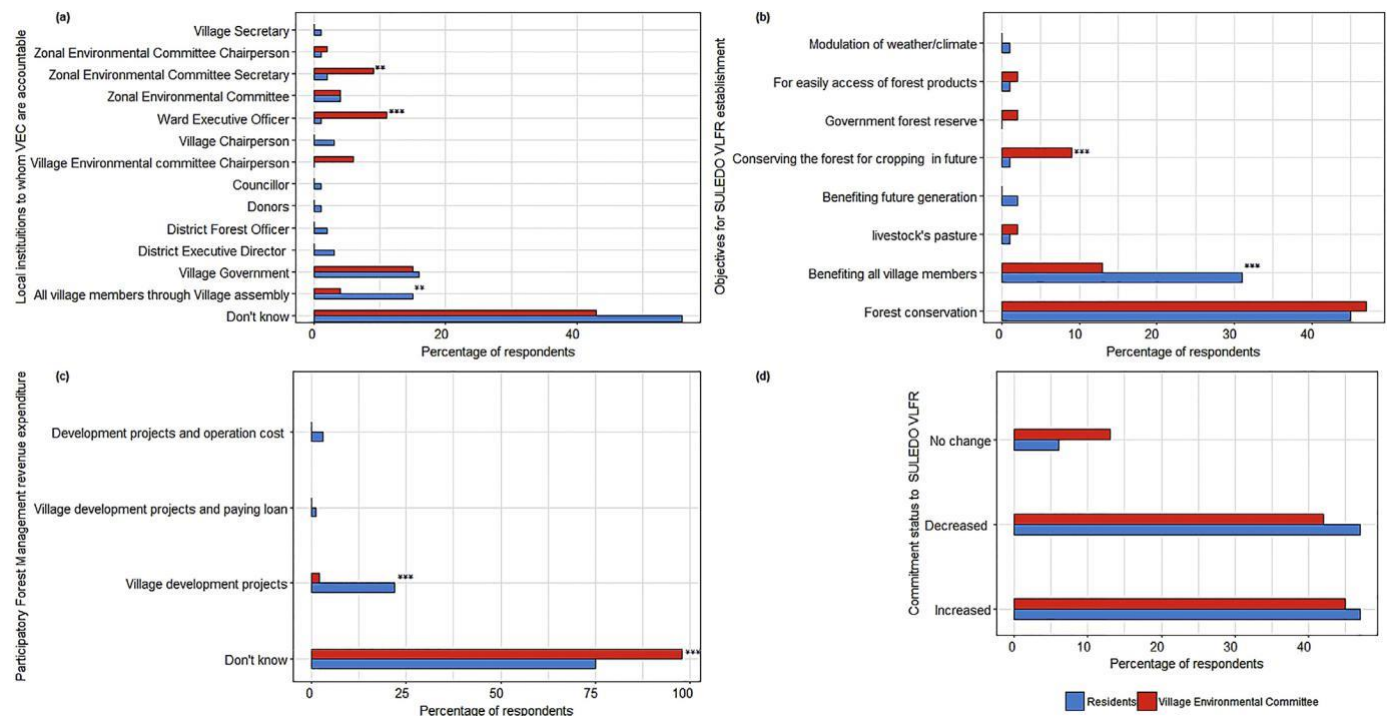


Fig. 6. Accountability; a) To whom are the VEC accountable; b) What were the objectives of establishing SULEDO VLFR? c) How has the revenue been used, as perceived by residents and VEC members; as perceived by residents and VEC members; % of respondents choosing each option (multiple options could be chosen), d) People's commitment to SULEDO VLFR? (Only one option could be chosen). Note: chi-square test was used to compare residents and VEC perception, at 1% (***) and 5% (**) level of significance.

ensure the forest benefits all residents and safeguards sustainable harvesting of forest products (URT, 2011, s.2.p5). Awareness of these objectives was low amongst both residents and VEC members (Fig. 3). However, residents were more likely to be aware that the forest reserve is intended to benefit all villagers ($p = .012$, Fig. 6b). Finally, the self-reported ability of village members to participate in PFM was low (Fig. 3). 47% of residents and 42% of VEC members felt that their commitment to SULEDO VLFR has decreased since the start of the forest (Fig. 6d).

4. Discussion

PFM in Tanzania has established new local institutions that manage the forest on behalf of the villagers. However, villagers are not fully engaged in, or indeed aware of, the election of members for these institutions. VEC members are more likely to participate in voting for VEC members than other residents are, but even within the VEC participation remains low. In addition, much power is concentrated at a relatively high level with the ZEC leaders. Given the large area and population covered by SULEDO, approximately 54,000 people (UNDP, 2012), it may be that the ZEC leaders cannot adequately represent, or be representative of, the diversity of the communities concerned. As a

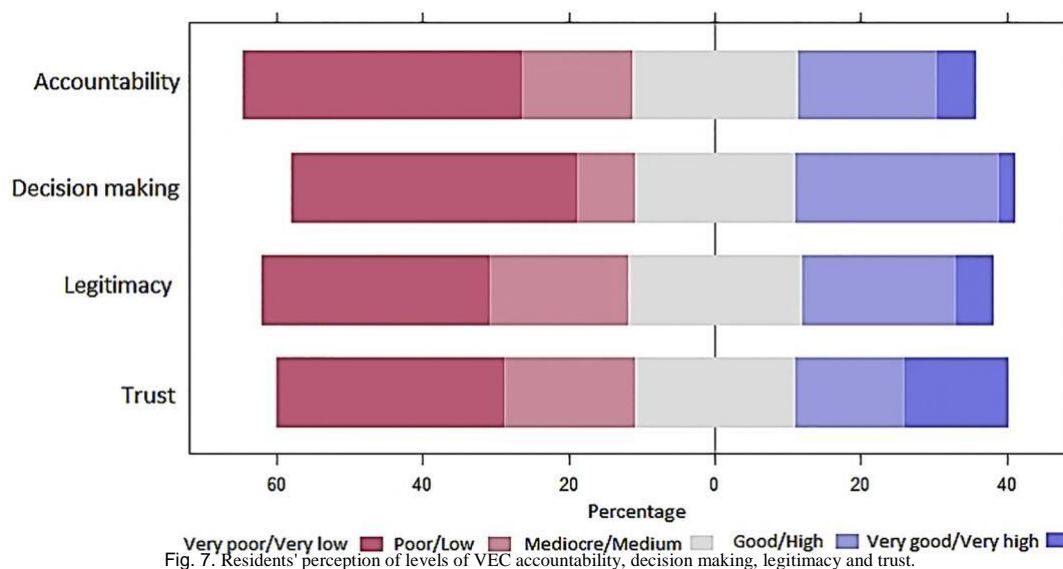


Fig. 7. Residents' perception of levels of VEC accountability, decision making, legitimacy and trust.

result, there appears to be an elite within the elite, in terms of who has control of, and participates in, PFM decisions and activities. This contradicts aspirations for representativeness in the devolution of power through PFM (Agrawal and Ribot, 1999).

As well as being representative, institutions should be capable and empower local people (Agrawal and Ribot, 1999). There are limited PFM training opportunities in SULEDO and the few trainings seem to be allocated only to individuals with a personal tie to ZEC leaders (e.g. relatives). Thus only a few residents and VEC members have participated in PFM training, limiting awareness of their rights, responsibilities and the power that they may exercise when leaders contravene the PFM policy, this may constrain effective PFM implementation. Coulibaly-Lingani et al. (2011) and Mogoi et al. (2012) in their studies in Burkina Faso and Kenya respectively, similarly report that villagers lack knowledge and capacities to effectively implement PFM.

Our results showed that participation in village assemblies was low; residents and VEC members who attended village assemblies were not necessarily involved in decision making over management and utilization of the forest. In practice, management activities and decision making involve only ZEC leaders, this limits the capacity of VEC members to know each other. This could prevent residents' preferences from being adequately addressed and suggests dominance in the programme by a small elite or clique (see also Bardhan, 2002; Persha and Andersson, 2014; Liu et al., 2018). For PFM to be effective, decisions need to accommodate the views and opinions of all residents with special consideration of marginalised groups (Agrawal and Ribot, 1999). VEC members reported that only ZEC leaders were involved in key decision-making, while residents and village government leaders have no power to question them. Other studies have similarly suggested that decision making processes in PFM are not inclusive and may be dominated and controlled by a local elite (Ribot et al., 2010; Dressler et al., 2015; Liu et al., 2018), and now we have a wider base of responses from residents and committee members to substantiate this.

We have also outlined exclusion and failings with regards to the approval and understanding of rules and regulations. Although the community are aware of the existence of rules, regulations and sanctions for the programme, they lack awareness of how these rules operate and are not participating in the formulation and approval of by-laws at the outset. This limits the sense of ownership amongst residents and hence undermines effective implementation and enforcement of PFM rules and regulations. We also found a lack of transparency in how sanctions are enforced. This may lead committee leaders to bypass the forest management plan and manage the forest according to their own interest. Our findings are in line with Persson and Prowse (2017), who found local communities implementing PFM in Cambodia lacked awareness of forest rules, and hence formal forest rules and regulation do not correspond to the 'rules' actually in use. Likewise, Liu and Innes (2015), found that local communities in China continue to implement the PFM approach with top-down decision making despite the need for bottom up approach and hence constrain effective PFM implementation.

Our results show that both residents and VEC members are dissatisfied with the mechanism of sharing benefits and few of them access timber. Interestingly we found no evidence that gender or wealth was associated with levels of satisfaction with benefit sharing mechanisms (see Liu et al., 2018). Although access to forest resources was not influenced by wealth status or gender, it did depend on the decision of committee leaders who tend to redistribute benefits in favour of individuals who are closer to and voted for them (see also Olken, 2007). For individuals and villages that are not well connected, it could be harder to secure programme benefits (Kamoto et al., 2013). This has decreased the commitment of some residents and VEC members to PFM.

Similarly, we had expected that participation in PFM activities and access to forest resources could be influenced by both wealth and gender status (e.g. Agrawal, 2001) and tested for this in our analyses. We found some evidence for an effect of gender and age, but not wealth

per se. Moreover, our findings showed that participation in PFM activities were low amongst both residents and VEC members. This is consistent with our qualitative evidence that SULEDO has become dominated by a very restricted "elite within an elite" comprising only the ZEC leaders and close associates, rather than a broader group of VEC members or wealthier or male residents. This small elite has captured both decision-making processes and tangible benefits (e.g. training opportunities and timber harvesting).

Interviews revealed that some VEC members were appointed, rather than elected, limiting their accountability as they may be more likely to represent the interests of those who appoint them than their constituents (see e.g. Chinangwa et al., 2016; Liu et al., 2018). The length of term for committee members, audits and handling of finances are equally crucial elements in enhancing accountability of those who control the management of the resources (Agrawal and Ribot, 1999). Although the management plan requires ZEC leaders to be downward accountable, our findings show that ZEC leaders are not reporting revenue and expenditure to VEC members, village government leaders or the village assembly, limiting downward accountability. When local institutions are not accountable to their constituents, devolution is not achieved, and elite capture is likely (Baruah, 2017). Our findings suggest that access to information is critical to ensure effective participation and reduce elite capture (Pasgaard and Chea, 2013; Persson and Prowse, 2017). Lack of transparency on revenue and expenditure limits the power that local communities may exercise (Reinikka and Svensson, 2004). Ignorance of length of term for VEC members and lack of audits also compromises the VEC's downward accountability.

5. Conclusions

We have assessed the extent to which Tanzanian PFM policy achieves its governance objectives in a case study that has been relatively well-supported. We found that implementation of PFM fails to achieve at least some of the stated policy objectives for democratically elected, downwardly accountable local actors and equitable benefit sharing. Participation of residents in electing members of the VEC is low. The engagements of residents and VEC members in all PFM activities is low and a small elite seems to dominate the implementation of PFM at the zonal level, capturing both decision-making and benefits, to the dissatisfaction of other residents. Accountability of ZEC leaders to the VEC, village leaders, and residents is not evident. We found no evidence of successful resistance by marginalised groups operating through PFM institutions (though it may occur by other means, such as non-compliance, Lund and Saito-Jensen, 2013). We found little evidence for gender or wealth being a major factor determining participation amongst ordinary residents, but that appears to be because most ordinary residents, and even VEC members, seem relatively marginalised. This dominance by a small group aligned to the ZEC leaders has probably been facilitated by a low level of knowledge and engagement by ordinary residents and village level leaders. This may be because greater participation would require investment of significant time and effort, whereas the benefits of better governance would accrue to all residents. Overall, and despite SULEDO having received considerable donor support, it does not seem immune to the problems reported in other PFM projects elsewhere (Carter and Gronow, 2005; Baruah, 2017; García-López, 2019; Gross-Camp et al., 2019). It is important to note, however, that we have compared the real-world performance of PFM against ideals of devolution and policy objectives. Our results should not be used to infer that PFM has not empowered local people relative to the situation prior to PFM. Relatedly, our findings represent a snapshot of the success of the PFM process around 22 years after it commenced in SULEDO, and five years after external support was phased out. Power relations are likely to evolve over time, and it may be that the dissatisfaction we observed will lead to elite dominance being challenged (Lund and Saito-Jensen, 2013). By using standardised surveys with a representative sample of local residents, our study

provides a baseline against which such developments might be measured.

In terms of practical recommendations, greater inclusion of villagers in elections might be achieved by improving awareness with regard to election calendars for committee members (Behera and Engel, 2006; Persson and Prowse, 2017). Government, external facilitators and committee leaders could explore effective and cost-efficient options for information exchange. Awareness raising and training beyond village assemblies, which targets all residents and offers opportunities amongst villagers for co-learning, might help to enhance capacity to implement PFM and awareness of rules. Finally, decision making processes should ensure effective inclusion of all parts of the community to avoid elites controlling decisions and capturing committees to which power is devolved. Ensuring inclusion of all villagers in by-law formulation and approval should enhance the sense of ownership and hence the enforcement of decisions (Agrawal and Ribot, 1999; Kamoto, 2007). Thus, external facilitators should allow enough time for wider consultations with all participants and assume advisory and facilitation roles during by-law formulation rather than owning the process. In order to ensure downward accountability and transparency in implementing the approach, there should be public audit and hearing sessions. All this would require ongoing support by donors and ultimately by state institutions. Although PFM was promoted partly as a devolved response to perceived state weakness, its success may still depend on the capacity of state institutions.

Caution is also required in assuming that better external support would be sufficient to address the weaknesses in PFM. SULEDO VLFR received donor support from the mid-1990s until at least 2012, yet failings are still apparent. Therefore, simply increasing support to local communities implementing the PFM might not be enough to achieve devolution if the policies themselves are not well designed, for example if the institutions imposed by PFM are too complex, or if the spatial scale over which PFM institutions operate is too large (larger than pre-existing village level institutions). Complexity and distance between decision-makers and those affected increases the barriers to participation, and dilutes the reward. PFM has created new institutions, which lie outside the existing democratic institutions of village government, and operate at higher spatial scale (in the case of the ZEC). Village government leaders appear to be relatively powerless to hold PFM leaders accountable in practice. Without idealising village government, it may be that the creation of entirely new structures has created opportunities for elite capture that might have been mitigated if existing structures, which might be better understood by residents, had been given greater power in the PFM process.

Declaration of Competing Interest

None.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.forpol.2019.102077>.

References

Ackerman, J., 2004. Co-governance for accountability: beyond "exit" and "voice". *World*

- Dev. 32, 447–463.
- Adhikari, S., Kingi, T., Genesh, S., 2014. Incentives for community participation in the governance and management of common property resources: the case of community forest management in Nepal. *For. Policy Econ.* 44, 1–9.
- Agrawal, A., 2001. Common property institutions and sustainable governance of resources. *World Dev.* 29, 1649–1672.
- Agrawal, A., Ribot, J.C., 1999. Accountability in decentralization: a framework with south Asian and African cases. *J. Dev. Areas* 33, 473–502.
- Alden Wily, L., 1997. Villagers as Forest Managers and Governments "Learning to Let Go" The case of Duru-Haitemba and Mgori Forests in Tanzania Forest Participation Series No. 9. International Institute for Environment and Development (IIED), London.
- Alden -Wily, L., 2001. Facilitation Towards Community Based Forest Management of Minyughe Forest. Singida Rural District. Tanzania.
- Ameha, A., Nielsen, O.J., Larsen, H.O., 2014. Impacts of access and benefit sharing on livelihoods and forest: case of participatory forest management in Ethiopia. *Ecol. Econ.* 97, 162–171. <https://doi.org/10.1016/j.ecolecon.2013.11.011>.
- Bardhan, P., 2002. Decentralization of governance and development. *J. Econ. Perspect.* 16, 185–205.
- Baruah, M., 2017. Facilitation and elite formation community resource management in southwestern Ghana. *Conserv. Soc.* 15, 371–383.
- Behera, B., Engel, S., 2006. Institutional analysis of evolution of joint forest management in India: a new institutional economics approach. *For. Policy Econ.* 8, 350–362. <https://doi.org/10.1016/j.forpol.2005.08.006>.
- Bekele, T., Ango, T.G., 2015. Do interventions from participatory action research improve livelihood and reduce conflicts over Forest resources? A case study from south Central Ethiopia. *Small-Scale For.* 14, 441–458. <https://doi.org/10.1007/s11842-015-9297-7>.
- Bowler, D.E., Buyung-Ali, L.M., Healey, J.R., Jones, J.P.G., Knight, T.M., Pullin, A.S., 2012. Does community forest management provide global environmental benefits and improve local welfare? *Front. Ecol. Environ.* <https://doi.org/10.1890/110040>.
- Carter, J., Gronow, J., 2005. Recent Experience in Collaborative Forest Management. CIFOR Occasional Paper No. 43. 57 Center for International Forestry Research, Indonesia.
- Chhetri, B.B.K., Larsen, H.O., Smith-Hall, C., 2012. Law enforcement in community forestry: consequences for the poor. *Small-Scale For.* 11, 435–452. <https://doi.org/10.1007/s11842-011-9194-7>.
- Chhetri, B.B.K., Hakon Johnsen, F., Konoshima, M., Yoshimoto, A., 2013. Community forestry in the hills of Nepal: determinants of user participation in forest management. *For. Policy Econ.* 30, 6–13. <https://doi.org/10.1016/j.forpol.2013.01.010>.
- Chinangwa, L., Sinclair, F., Pullin, A.S., Hockley, N., 2016. Can co-management of government forest reserves achieve devolution? Evidence from Malawi. *For. Trees Livelihoods* 25, 41–58. <https://doi.org/10.1080/14728028.2015.1087886>.
- Chomba, S.W., Nathan, I., Minang, P.A., Sinclair, F., 2015. Illusions of empowerment? Questioning policy and practice of community forestry in Kenya. *Ecol. Soc.* 20. <https://doi.org/10.5751/ES-07741-200302>.
- Coleman, E.A., Fleischman, F.D., 2012. Comparing forest decentralization and local institutional change in Bolivia, Kenya, Mexico, and Uganda. *World Dev.* 40, 836–849. <https://doi.org/10.1016/j.worlddev.2011.09.008>.
- Coulbaly-Lingani, P., Savadogo, P., Tigabu, M., Oden, P.C., 2011. Decentralization and community forest management in Burkina Faso: constraints and challenges. *Int. For. Rev.* 13, 476–486. <https://doi.org/10.1505/146554811798811399>.
- Das, B.K., 2019. Denial of rights continues: how legislation for "democratic decentralisation" of Forest governance was subverted in the implementation process of the Forest rights act in India. *Eur. J. Dev. Res.* <https://doi.org/10.1057/s41287-019-0195-2>.
- Dressler, W., Büscher, B., Schoon, M., Brockington, D., Hayes, T., Kull, C.A., McCarthy, J., Shrestha, K., 2010. From hope to crisis and back again? A critical history of the global CBNRM narrative. *Environ. Conserv.* <https://doi.org/10.1017/S0376892910000044>.
- Dressler, W.H., McDermott, M.H., Schusser, C., 2015. The politics of community forestry in a global age — a critical analysis. *For. Policy Econ.* 58, 1–4. <https://doi.org/10.1016/j.forpol.2015.04.006>.
- Dyer, J., Stringer, L.C., Dougill, A.J., Leventon, J., Nshimbi, M., Chama, F., Kafwifwi, A., Muledi, J.I., Kaumbu, J.-M.K., Falcao, M., Muhorro, S., Munyemba, F., Kalaba, G.M., Syampungani, S., 2014. Assessing participatory practices in community-based natural resource management: experiences in community engagement from southern Africa. *Environ. Manag.* 137, 137–145. <https://doi.org/10.1016/j.jenvman.2013.11.057>.
- Etongo, D., Kanninen, M., Epule, T.E., Fobissie, K., 2018. Assessing the effectiveness of joint forest management in southern Burkina Faso: a SWOT-AHP analysis. *For. Policy Econ.* 90, 31–38. <https://doi.org/10.1016/j.forpol.2018.01.008>.
- García-López, G.A., 2019. Rethinking elite persistence in neoliberalism: foresters and techno-bureaucratic logics in Mexico's community forestry. *World Dev.* 120, 169–181. <https://doi.org/10.1016/j.worlddev.2018.03.018>.
- Gobeze, T., Bekele, M., Lemenih, M., Kassa, H., 2009. Participatory forest management and its impacts on livelihoods and forest status: the case of Bonga forest in Ethiopia. *Int. For. Rev.* 11, 346–357.
- Green, K.E., Lund, J.F., 2015. The politics of expertise in participatory forestry: a case from Tanzania. *For. Policy Econ.* 60, 27–34. <https://doi.org/10.1016/j.forpol.2014.11.012>.
- Gross-Camp, N., Rodriguez, I., Martin, A., Inturias, M., Massao, G., 2019. The type of land we want: exploring the limits of community forestry in Tanzania and Bolivia. *Sustainability* 11. <https://doi.org/10.3390/su11061643>.
- Haller, T., Galvin, M., Meroka, P., Alca, J., Alvarez, A., 2008. Who gains from community conservation? intended and unintended costs and benefits of participative approaches in Peru and Tanzania. *J. Environ. Dev.* 17, 118–144. <https://doi.org/10.1177/1070496508316853>.
- Hargreaves, J.R., Morison, L.A., Gear, J.S., Kim, J.C., Makhubele, M.B., Porter, J.D.,

- Watts, C., Pronyk, P.M., 2007. Assessing household wealth in health studies in de-veloping countries: a comparison of participatory wealth ranking and survey tech-niques from rural South Africa. *Emerg. Themes Epidemiol.* 4, 1–9. <https://doi.org/10.1186/1742-7622-4-4>.
- Jacob, T., Brockington, D., 2017. Learning from the other: benefit sharing lessons for REDD+ implementation based on CBFM experience in northern Tanzania. *Land Use Policy*. <https://doi.org/10.1016/j.landusepol.2017.10.028>.
- Kabir, K.H., Knierim, A., Chowdhury, A., Herrera, B., 2019. Developing capacity of forest users through participatory forest management: evidence from Madhupur Sal forest in Bangladesh. *J. Sustain. For.* 38, 149–170. <https://doi.org/10.1080/10549811.2018.1540991>.
- Kamoto, J., 2007. Improving forest beekeeping through monitoring in Chimaliro, Malawi. In: Guijt, I. (Ed.), *Negotiated Learning: Collaborative Monitoring in Forest Resource Management. Resources for the Future, Washington (DC)*, pp. 104–113.
- Kamoton, J., Clarkson, G., Dorward, P., Shepherd, D., 2013. Doing more harm than good? Community based natural resource management and the neglect of local institutions in policy development. *Land Use Policy* 35, 293–301. <https://doi.org/10.1016/j.landusepol.2013.06.002>.
- Kellert, S.R., Mehta, J.N., Ebbin, S.A., Lichtenfeld, L.L., 2000. Community natural re-source management: promise, rhetoric, and reality. *Soc. Nat. Resour.* 13, 705–715. <https://doi.org/10.1080/089419200750035575>.
- Kumar, S., 2002. "Does participation" in common pool resource management help the poor? A social cost-benefit analysis of joint forest management in Jharkhand, India. *World Dev.* 30, 763–782.
- Kumar, K., Singh, N.M., Kerr, J.M., 2015. Decentralisation and democratic forest reforms in India: moving to a rights-based approach. *For. Policy Econ.* 51, 1–8. <https://doi.org/10.1016/j.FORPOL.2014.09.018>.
- Lambrick, F.H., Brown, N.D., Lawrence, A., Bebb, D.P., 2014. Effectiveness of com-munity forestry in prey long forest, Cambodia. *Conserv. Biol.* 28, 372–381.
- LAMP, 2005. Building a Future with our Forests: Experiences of Community- Based Forestry. LAMP booklet, SIDA.
- Larson, A.M., 2002. Natural resources and decentralization in Nicaragua: are local gov-ernments up to the job? *World Dev.* 30, 17–31. [https://doi.org/10.1016/S0305-750X\(01\)00098-5](https://doi.org/10.1016/S0305-750X(01)00098-5).
- Lissu, U.A., von Mitzlaff, I., 2007. Moving towards Sustainable Harvesting of Village Forests Experience from Kiteto SULEDO Forest. *Arc Newsletter*, pp. 25 Biannu.
- Liu, J., Innes, J.L., 2015. Participatory Forest Management in China: key challenges and ways forward. *Int. For. Rev.* 17, 477–484. <https://doi.org/10.1505/146554815817476512>.
- Liu, Z., Rommel, J., Feng, S., 2018. Does it pay to participate in decision-making? Survey evidence on land co-management in Jiangsu Province, China. *Ecol. Econ.* 143, 199–209. <https://doi.org/10.1016/j.ecolecon.2017.07.023>.
- Luinter, H., Bluffstone, R.A., Scheller, R.M., Adhikari, B., 2017. The effect of the Nepal community forestry program on equity in benefit sharing. *J. Environ. Dev.* 26, 297–321. <https://doi.org/10.1177/1070496517707305>.
- Lund, J.F., Saito-Jensen, M., 2013. Revisiting the issue of elite capture of participatory initiatives. *World Dev.* 46, 104–112. <https://doi.org/10.1016/j.worlddev.2013.01.028>.
- Lund, J.F., Treue, T., 2008. Are we getting there? Evidence of decentralized Forest management from the Tanzanian Miombo woodlands. *World Dev.* 36, 2780–2800. <https://doi.org/10.1016/j.worlddev.2008.01.014>.
- Lund, J.F., Rutt, R.L., Ribot, J., 2018. Trends in research on forestry decentralization policies. *Curr. Opin. Environ. Sustain.* <https://doi.org/10.1016/j.cosust.2018.02.003>.
- Malimbwi, R., 2000. Natural forest management in Laiseri village. In: *A Pilot project for the land use management programme in Kiteto District, Tanzania*.
- Maraseni, T.N., Bhattarai, N., Karky, B.S., Cadman, T., Timalisina, N., Bhandari, T.S., Apan, A., Ma, H.O., Rawat, R.S., Verma, N., San, S.M., Oo, T.N., Dorji, K., Dhungana, S., Poudel, M., 2019. An assessment of governance quality for community-based forest management systems in Asia: prioritisation of governance indicators at various scales. *Land Use Policy* 81, 750–761. <https://doi.org/10.1016/j.landusepol.2018.11.044>.
- Mitchell, K., Branigan, P., 2000. Using focus groups to evaluate health promotion inter-ventions. *Heal. Educ. Libr. Rev. J. Mark. Pract. Appl. Mark. Sci. Iss* 100, 261–268.
- Mogoi, J., Obonyo, E., Ongugo, P., Oeba, V., Mwangi, E., 2012. Communities, property rights and Forest decentralisation in Kenya: early lessons from participatory forestry management. *Conserv. Soc.* 10, 182–194. <https://doi.org/10.4103/0972-4923.97490>.
- Mohammed, A.J., Inoue, M., 2012. Drawbacks of decentralized natural resource man-agement: experience from Chilimo participatory forest management project, Ethiopia. *J. Res.* 17, 30–36. <https://doi.org/10.1007/s10310-011-0270-9>.
- Mohammed, A.J., Inoue, M., Shivakoti, G., 2017. Moving forward in collaborative forest management: role of external actors for sustainable Forest socio-ecological systems. *For. Policy Econ.* 74, 13–19. <https://doi.org/10.1016/j.forpol.2016.10.010>.
- Mollick, S.A., Rahman, K.M., Khan, I.N., Sadath, N.M., 2018. Evaluation of good gov-ernance in a participatory forestry program: a case study in Madhupur Sal forests of Bangladesh. *For. Policy Econ.* 95, 123–137. <https://doi.org/10.1016/j.forpol.2018.07.014>.
- Mustalahti, I., Lund, J.F., 2009. Where and how can participatory forest management succeed? Learning from Tanzania, Mozambique, and Laos. *Soc. Nat. Resour.* 23, 31–44. <https://doi.org/10.1080/08941920802213433>.
- Mutune, J.M., Lund, J.F., 2016. Unpacking the impacts of "participatory" forestry po-licies: evidence from Kenya. *For. Policy Econ.* 69, 45–52. <https://doi.org/10.1016/j.forpol.2016.03.004>.
- Mutune, J.M., Hansen, C.P., Wahome, R.G., Mungai, D.N., 2017. What rights and bene-fits? The implementation of participatory forest management in Kenya: the case of eastern Mau Forest reserve. *J. Sustain. For.* 36, 230–249. <https://doi.org/10.1080/10549811.2017.1289105>.
- Nielsen, M.R., Meilby, H., 2013. Determinants of compliance with hunting regulations under joint Forest Management in Tanzania. *S. Afr. J. Wildl. Res.* 43, 120–137. <https://doi.org/10.3957/056.043.0210>.
- Olken, B.A., 2007. Monitoring corruption: evidence from a field experiment in Indonesia. *J. Polit. Econ.* 115, 200–249.
- ORGUT, 2010. Securing Sustainability of LAMP Initiatives Support to SULEDO Forest Reserve, Consultancy Inputs on Harvest Operation and Forest Management.
- Pasgaard, M., Chea, L., 2013. Double inequity? The social dimensions of deforestation and forest protection in local communities in northern Cambodia. *Österreichische Zeitschrift für Südostasienwissenschaften* 2 <https://doi.org/10.4232/10.ASEAS-6.2-6>. 285–269.
- Persha, L., Andersson, K., 2014. Elite capture risk and mitigation in decentralized forest governance regimes. *Glob. Environ. Chang.* 24, 265–276. <https://doi.org/10.1016/j.gloenvcha.2013.12.005>.
- Persha, L., Blomley, T., 2009. Management decentralization and montane forest condi-tions in Tanzania. *Conserv. Biol.* 23, 1485–1496.
- Persson, J., Prowse, M., 2017. Collective action on forest governance: an institutional analysis of the Cambodian community forest system. *For. Policy Econ.* 83, 70–79. <https://doi.org/10.1016/j.forpol.2017.06.008>.
- R Core Team, 2018. R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing, Vienna.
- Rai, R.K., Dhakal, A., Khadayat, M.S., Ranabhat, S., 2017. Is collaborative forest man-agement in Nepal able to provide benefits to distantly located users? *For. Policy Econ.* 83, 156–161. <https://doi.org/10.1016/j.forpol.2017.08.004>.
- Reinikka, R., Svensson, J., 2004. Local capture: evidence from a central government transfer program in Uganda. *Q. J. Econ.* 679–705.
- Ribot, J., 2004. Waiting for Democracy, The Politics of Choice in Natural Resource Decentralization, Foreign Policy. United States of America. <https://doi.org/10.2307/1148781>.
- Ribot, J.C., Lund, J.F., Treue, T., 2010. Democratic decentralization in sub-Saharan Africa: its contribution to forest management, livelihoods, and enfranchisement. *Environ. Conserv.* 37, 35–44.
- Saito-Jensen, M., Nathan, I., Treue, T., 2010. Beyond elite capture? Community-based natural resource management and power in Mohammed Nagar village, Andhra Pradesh, India. *Environ. Conserv.* 37, 327–335. <https://doi.org/10.1017/S0376892910000664>.
- Scheba, A., Mustalahti, I., 2015. Rethinking "expert" knowledge in community forest management in Tanzania. *For. Policy Econ.* 60, 7–18. <https://doi.org/10.1016/j.forpol.2014.12.007>.
- Schreckenberger, K., Luttrell, C., 2009. Participatory Forest management: a route to poverty reduction? *Int. For. Rev.* 11, 221–238. <https://doi.org/10.1505/for.11.2.221>.
- Schusser, C., Krott, M., Yufanyi Movuh, M.C., Logmani, J., Devkota, R.R., Maryudi, A., Salla, M., Bach, N.D., 2015. Powerful stakeholders as drivers of community forestry - results of an international study. *For. Policy Econ.* 58, 92–101. <https://doi.org/10.1016/j.forpol.2015.05.011>.
- Senganimalunje, T.C., Chirwa, P.W., Babalola, F.D., 2015. Potential of institutional ar-rangements for sustainable management of forests under co-management with local forest organisations in Mua-Livulezi Forest reserve, Mtakatata, Malawi. *Source Int. For. Rev.* 17, 340–354. <https://doi.org/10.1505/146554815815982602>.
- Sungusia, E., Lund, J.F., 2016. Against all policies: landscape level forest restoration in Tanzania. *World Dev. Perspect.* 3, 35–37. <https://doi.org/10.1016/j.wdp.2016.11.012>.
- Tole, L., 2010. Reforms from the ground up: a review of community-based forest man-agement in Tropical developing countries. *Environ. Manag.* 45, 1312–1331. <https://doi.org/10.1007/s00267-010-9489-z>.
- UNDP, 2012. Suledo Forest Community, Tanzania. Equator Initiative Case Study Series. In: *Local Sustainable Development Solutions For People. Nature and resilient com-munities*, New York, NY.
- URT, 1982. The Local Government (District Authorities) Act, Local Government Areas, Establishment, Registration and Variation of Area of Local Government Authorities. Government Printer. Dar es Salaam, Tanzania.
- URT, 1998. National Forest Policy of Tanzania. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer, Dar es Salaam, Tanzania.
- URT, 2002. Forest Act of Tanzania. no.14 of 7th June 2002. In: Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer, Dar es Salaam, Tanzania.
- URT, 2006. Participatory Forest Management in Tanzania Facts and Figures. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer, Dar es Salaam, Tanzania.
- URT, 2007. Community Based Forest Management Guidelines. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer, Dar es Salaam, Tanzania.
- URT, 2011. SULEDO Village Land Forest Reserve Management and Sustainable Harvesting Plan. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division, Dar es Salaam, Tanzania.
- URT, 2012. Participatory Forest Management in Tanzania Facts and Figures. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. Government Printer, Dar es Salaam, Tanzania.
- Vyamana, V., 2009. Participatory forest management in the eastern Arc Mountains of Tanzania: who benefits? *Int. For. Rev.* 11, 239–253. <https://doi.org/10.1505/for.11.2.239>.
- Zulu, L.C., 2008. Community forest management in southern Malawi: solution or part of the problem? *Soc. Nat. Resour.* 21, 687–703

Are policies for decentralised forest governance designed to achieve full devolution? Evidence from Eastern Africa

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SUMMARY

Decentralised forest management approaches are ostensibly designed to increase community involvement in forest management, yet have had mixed success in practice. We present a comparative study across multiple countries in Eastern Africa of how far decentralised forest policies are designed to achieve devolution. We adopt the decentralisation framework developed by Agrawal and Ribot to explore whether, and how, devolution is specified in Tanzanian, Kenyan, Ugandan, Malawian and Ethiopian forest policies. We also compare them to the commitments of the Rio Declaration. In all five countries, the policies lack at least some of the critical elements required to achieve meaningful devolution, such as democratically elected, downwardly accountable local actors and equitable benefit sharing. Calling an approach 'community' or 'participatory', does not mean that it involves all residents: in Kenya, Uganda and Ethiopia, policies allow a small group of people in the community to manage the forest reserve, potentially excluding marginalised groups, and hence limiting devolution. This may lead to elite capture, and effective privatisation of forests, enclosing previously *de facto* common pool resources. Therefore, even without flaws in implementation, these decentralisation policies are unlikely to achieve true devolution in the study countries.

Keywords: decentralization policies, devolution, actors, accountability, empowerments

Les stratégies pour la gestion décentralisée des forêts sont-elles élaborées pour parvenir à une dévolution totale? Preuves en provenance d'Afrique de l'est

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Les approches vers la gestion forestière décentralisée sont ostensiblement élaborées pour accroître la participation des communautés dans la gestion forestière, mais elles n'ont cependant obtenu que des succès mixtes dans la pratique. Nous présentons une étude comparative dans de multiples pays d'Afrique de l'est, pour établir jusqu'à quel point les stratégies forestières décentralisées sont élaborées pour parvenir à la dévolution. Nous adoptons le cadre de décentralisation développé par Agrawal et Ribot pour explorer si, et comment, la dévolution est spécifiée dans les stratégies forestières en Tanzanie, au Kenya, dans l'Ouganda, au Malawi et en Ethiopie. Nous comparons également l'engagement dans la déclaration de Rio. Dans les cinq pays, les stratégies démontrent une carence dans au moins quelques-uns des éléments critiques nécessaires pour obtenir une dévolution significative, tels que des acteurs locaux démocratiquement élus, responsables vers le bas, ainsi qu'un partage équitable des bénéfices. Appeler une approche «communautaire» ou «participative», ne signifie pas qu'elle inclut tous les résidents: au Kenya, en Ouganda et en Ethiopie, les stratégies permettent à un petit groupe d'individus de la communauté de gérer la réserve forestière, excluant potentiellement les groupes marginalisés, et limitant ainsi la dévolution. Ceci risque de conduire à une capture des élites et en pratique, à une privatisation des forêts, enferment des ressources auparavant *de facto* communes. Il est par conséquent peu probable que ces stratégies de décentralisation dans les pays étudiés débouchent sur une dévolution, même si leur mise en application ne présentait aucun défaut.

¿Están las políticas para la gobernanza forestal descentralizada diseñadas para lograr una completa devolución? Evidencia de África oriental

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Los enfoques de gestión forestal descentralizada están diseñados notoriamente para aumentar la participación de la comunidad en la gestión, pero en la práctica han tenido un éxito desigual. Se presenta un estudio comparativo entre varios países de África oriental sobre la medida en que las políticas forestales descentralizadas están diseñadas para lograr una completa devolución. El estudio adopta el marco de descentralización desarrollado por Agrawal y Ribot para examinar si la devolución aparece incluida específicamente en las políticas forestales de Tanzania, Kenia, Uganda, Malawi y Etiopía, y cómo lo hacen. También se comparan con los compromisos de la Declaración de Río. En los cinco países, las políticas carecen por lo menos de algunos de los elementos críticos necesarios para lograr una devolución significativa, como la presencia de responsables locales elegidos democráticamente que rindan cuentas a quienes los eligen y una distribución equitativa de los beneficios.

Llamar a un enfoque ‘comunitario’ o ‘participativo’ no significa que involucre a todos los residentes: en Kenia, Uganda y Etiopía, las políticas permiten que un pequeño grupo de personas de la comunidad gestione la reserva forestal, lo que potencialmente excluye a los grupos marginados y limita por tanto la devolución. Esto puede conducir a la captura de recursos por la élite y a la privatización efectiva de los bosques, haciendo inaccesibles lo que antes eran *de facto* recursos de uso común. Por lo tanto, incluso aunque no haya fallos de implementación, es poco probable que estas políticas de descentralización logren una verdadera devolución en los países del estudio.

INTRODUCTION

Before the 1980s, centralised forest policies in many countries excluded local communities, while often failing to prevent degradation of forest resources (Haller *et al.* 2008). Whilst the concept of community involvement in forest management has been developing since the early 1950s, the idea gained momentum in the 1980s due to a shift in rural development thinking and practice (Barlett and Malla 1992, Timsina 2003). Structural adjustment programmes, supported by world financial institutions such as the World Bank and International Monetary Fund (IMF) also contributed to the popularity of the concept (Kowero *et al.* 2003, Ribot 2002). These financial institutions supported decentralisation as part of downsizing central governments and forced African governments to introduce decentralisation reforms in all sectors, including the forest sector (World Bank 1992). Furthermore, in the early 1990s, a number of international frameworks emerged demanding local community involvement in forest management as an intrinsic component of sustainable forest management principles. These include Chapter 11 of Agenda 21 adopted at the United Nations Conference on Environment and Development (UNCED) the Convention on Biological Diversity; the Rio+20 Declaration; the African Timber Organization, and Sustainable Development Goals (ATO 2003, CBD 2003, UN, 1992, 2012, 2015). All of these frameworks require forest policies to allow indigenous peoples and local communities, including women and the poorest individuals, to have rights to participate in forest management and access forest resources benefits (ATO 2003, CBD 2003, UN, 1992, 2012, 2015).

Following this, in the 1990s, forest policies in almost all countries in Africa and Asia adopted more decentralised approaches as a way to improve forest governance and rural livelihoods (Schreckenberg and Luttrell 2009, White and Martin 2002). The first literature explicitly referring to forest decentralisation approaches was published in 1982 (Sen, 1982)¹. The concept of forest decentralisation has been used in numerous articles (e.g. Adam and Eltayeb, 2016 and Rondinelli *et al.* 1989), evolving and taking different forms from country to country due to differences in actors and the political context in which it is implemented (Odera, 2009). Among these forms are Community Forest Management (CFM), Collaborative Forest Management (CoFM), Participatory Forest Management (PFM), and Co-management (see table 1). Despite the diversity of these terms, all imply some

degree of devolution of forest resources management to local people (Agrawal and Ribot 1999, Crook and Manor 1998).

Since the introduction of this bottom-up approach, scholars have documented mixed impacts (e.g., Bekele *et al.* 2015, Bowler *et al.* 2012, Hamza and Kimwer 2007, Lambrick *et al.* 2014, Lund *et al.* 2018, Ngaga, *et al.* 2003, Senganimalunje *et al.* 2015). Reviewing a range of previous studies, Eguny and Reed (2015), Lund and Treue (2008), Persson and Prowse, (2017) and Vyamana (2009) found that women and the poorest people are often excluded from gaining benefits. Mustalahti and Lund (2010) found that some district councils failed to approve village by-laws on time and hence frustrated community efforts to obtain legal title to their forests. Chinangwa *et al.* (2016), García-López, (2019), Lemenih and Bekele (2008) and Mogoi *et al.* (2012), noted that some members of committees are appointed by village leaders rather than being locally elected by residents, or else lacked power to enforce the forest rules. However, Lund and Treue (2008) found that transferring rights and powers to local communities resulted in increased efficiency of forest revenue collection in Tanzania, and Bekele *et al.* (2015) found reduced conflicts over forest use and management in Ethiopia.

Although it can be difficult to separate limitations in the design of policies, from flawed implementation, (flaws in design may beget errors in implementation), it is useful to explicitly measure how far forest legislation supports decentralisation. Previous studies (e.g. Bruce 1999, Das 2019, Lindsay 2004, Lynch 1998, Mollick *et al.* 2018, Mekonnen and Bluffstone 2015, Mustalahti and Lund 2010, Mutune and Lund 2016), have considered this, focussing particularly on forest acts (legislation). For example Bruce, (1999) compared how property rights and organizational forms have been deployed to support community forestry in selected countries in Africa, Asia and America, and suggested that more complex forms of organization are required to enable greater management autonomy. Lindsay (2004) detailed how legislation typically impedes or supports decentralisation in enhancing livelihoods outcomes, and found that decentralisation falls short of improving livelihoods due to the limited rights that legislation transferred to local communities. Mustalahti and Lund (2010), reviewing cases in Tanzania, Mozambique, and Laos found that the Forest Act in Tanzania lacks clarity on the process by which local communities attain rights, and the process of losing rights. Mutune and Lund (2016) examined Participatory Forest Management (PFM) in Kenya as it unfolds in practice on the ground and concluded that current

¹ Search in Web of Science for “community forest manag*” OR “participatory forest manag*” OR “collaborative forest manag*” OR “co-management” AND (forest* OR natural).

TABLE 1 *Types of decentralised forest governance considered*

Country	Name	Programmes	Type of land /forest/tenure	Source
Tanzania	Participatory Forest Management (PFM)	Village Land Forest Reserves (VLFR)	Forests on village land	URT, 2007.p.1 and 3; URT 2002, s.33.pg 35
		Community Forest Reserves (CFR)	Forests on village land	URT, 2007.p.1 and 4; URT 2002, S.42.pg 46
		Joint Forest Management (JFM)	Forest reserve managed and owned by government (central or local authority)	URT 2013.p. 1
Malawi	Participatory Forest Management (PFM)	Community Forest (CF)	Unallocated customary land	GoM, 2010,p. 48, 2007, 2001 and 1996
		Co-management	Government forest reserve	GoM, 2010,p.48, 2007, 2001 and 1996
Kenya	Participatory Forest Management (PFM)	Participatory Forest Management (PFM)	State forest or local authority forest	GoK, 2005
Ethiopia	Participatory Forest Management (PFM)	Participatory Forest Management (PFM)	State forest	FDRE 2007,s.3.p.8
Uganda	Collaborative Forest Management (CFM)	Collaborative Forest Management (CFM)	Takes place in central or local forest reserves	GoU, 2003,s.15
	Community Forest (CF)	Community Forest (CF)	Forest on community land†	GoU, 2015

† “Community land” means former public land held by the District Land Board, Land designated as “fragile ecosystem” by NEMA (by way of National Environment Status of 1995), Areas to be planted as community managed plantations and Woodland/pastoral areas communally used by a community (GoU, 2015, p.2).

policies appear not to support effective participation, focusing mainly on the livelihoods of local communities rather than governance per se. In their extensive review of past forest policies and current forest developments in Ethiopia, Mekonnen and Bluffstone (2015) indicated that although Ethiopia is implementing policies for decentralised forest governance, all the major forests continue to be owned and managed by the Ethiopian government which has limited communities’ capacity to enforce rules, resulting in high rates of deforestation and forest degradation. Das (2019) and Chomba *et al.* (2015) studying forest decentralisation in India and Kenya respectively, highlighted that forest decentralisation policies transferred only limited powers to local communities. Alden Wily, (2002) provides a multicountry analysis of forest decentralisation policies, but their focus was a general review of policies without considering them in relation to theories of devolution or the international aspirations upon which policies for decentralised forest governance are based.

We build on this previous literature by analysing forest decentralisation policies across several countries, considering not just legislation, but also policies and guidelines, comparing them to Agrawal and Ribot’s (1999) decentralisation framework and the aspirations of the Rio Declaration on Environment and Development (shortened here to Rio Declaration). We recognise that documentary review of policies is not sufficient to determine likely outcomes. Instead, we aimed to evaluate the extent to which devolution to local communities is specified in Tanzanian, Kenyan, Ugandan, Malawian and Ethiopian forest policies, following the decentralisation

framework developed by Agrawal and Ribot (1999). We argue that if policies themselves are not designed to achieve devolution, it is unlikely that it will happen. Not all policies were explicitly attempting to achieve devolution though all clearly aimed to increase local control and power in forest management. Whatever the intention of specific policies in each country, it is useful to measure how far these policies have gone towards achieving devolution. Our objective is therefore to determine whether policies contained the necessary provisions to achieve devolution and not to consider whether the policies are a success on their own terms.

A number of theories have been used to understand decentralised management of resources, for example participation and common pool resource theories by Arnstein (1969) and Ostrom, (1990) respectively. Drawing on previous work, Agrawal and Ribot’s (1999) framework was developed specifically to analyse policies that aimed to decentralise forest management, envisaging a form of governance where management responsibility is vested in an executive body at the community level that is kept to account through procedures of information sharing and election. We adopt this framework because of its widespread use in other recent forest governance studies, particularly notable in its guidelines for democratically elected and downwardly accountable local actors, and equitable benefit sharing (see e.g. Das 2019, Chinangwa *et al.* 2016, Chomba *et al.* 2015, Mutune and Lund 2016). Therefore, the Agrawal and Ribot framework is well suited to our objectives and the situation observed by recent literature in Eastern African countries (e.g. Chinangwa *et al.* 2016, Chomba *et al.* 2015, Mutune and Lund 2016).

Without understanding the powers of different actors in forest resource management, the domains in which they exercise their powers, and to whom and how they are accountable, it is impossible to analyse how far policies for forest decentralisation have gone towards achieving devolution (Agrawal and Ribot 1999). The analysis also considers whether the policies meet the aspirations of the Rio Declaration, which has been widely adopted, including by all the five study countries, as a way to achieve sustainable forest management. Therefore, the international framework might be expected to have had an influence on the format and development of the different country's policies for decentralised forest governance, and it is useful to assess the degree to which they are aligned.

The countries chosen are all in the UN "eastern Africa" statistical region, and all adopted decentralised forest policies. We aimed to review countries with different histories of forest decentralisation. The chosen countries provide some variation with regard to decentralisation of forest governance and this gives a useful cross section of approaches to evaluate. In particular, the models of forest decentralisation implementation in Tanzania and Malawi differ from those in Kenya, Uganda and Ethiopia, as they are based on village jurisdiction as opposed to the membership of an association or cooperative (FDRE, 2007.s.4.4.p.11, s.3.p.7, GoK, 2005, p.3, GoM, 1997. s.25. p. 15, GoU, 2003. p.34, URT, 2002. s.33. p.52). In addition, differences in the history of the countries have led to variation in some of the factors that are important to forest decentralisation, e.g. political and administrative structures and land tenure systems (Mustalahti and Lund 2010). Kenya, Uganda and Malawi were colonised by the British for around six decades. In Tanzania, British rule followed German, while Ethiopia was only briefly occupied by Italy. All study countries, except Tanzania, were among the first countries in Africa to adopt structural adjustment reforms in the 1980s that led to wider changes in policies of different sectors including forestry, and then later in the 1990s the countries adopted policies for decentralised forest governance (Kiiza *et al.* 2007, Kowero *et al.* 2003). This article contains five sections: following this section, the second section outlines the theoretical approach and methods; the third section presents results, the fourth section presents discussion; and the last section provides conclusion and recommendations.

CONCEPTUAL FRAMEWORK AND METHODS

Types of Decentralisation

There are four types of decentralisation recognized in the literature (Devolution, Deconcentration, Delegation and Privatization) (Ribot 2004). Devolution is the process of transferring decision-making powers, tasks and resources from high-level authorities (the Central Government) to lower level authorities (Ribot 2004). Deconcentration is the process of transferring some of the selective administrative functions from the high-level authorities to lower level authorities, or sub-national units within central government ministries and agencies. In this case, the high level authorities are not giving

up any authority (Ribot 2002, Manor and World Bank 1999). Delegation is the transfer of some responsibilities and decision-making power from high-level authorities to organizations that are not in the normal bureaucratic structures and only indirectly controlled by the high authorities (Oyono 2007). Privatization is another form of decentralisation in which the government transfers its responsibilities and services onto private enterprises or Non-Governmental Organizations (Ribot 2002). All these are types of decentralisation but devolution is a more complete form of decentralisation when compared to deconcentration and delegation (Agrawal and Ribot 1999). Privatisation does not necessarily differ from devolution in extent, but rather in to whom powers are given, and how they are accountable. The analysis in this article primarily focusses on devolution but also notes when the policies may have characteristics of deconcentration or delegation. It may be in practice that policies may have features of more than one type of decentralisation. Privatisation was excluded from the analysis as it was not considered in Agrawal and Ribot's decentralisation framework, however, we consider in the discussion whether some policies exhibit elements of privatisation.

Forms of forest policy

Governments define and elaborate forest decentralisation policies through various means including Acts/Proclamations, Ordinances, Policies, Guidelines and Management plans. They can be usefully classified based on the type of policy, who creates and approves the policy, their purpose and legal effect (Table 2).

Analytical Approach

In this paper, we focus on three critical elements proposed by Agrawal and Ribot (1999), namely actors, empowerment and accountability (see Figure 1 and Table 3, these are briefly explained below). We also compare the policies in question to the commitments of the Rio Declaration, which also provided principles for the involvement of local community in forest management (see Table 3). Several different decentralisation programmes may be present in each country (see Table 2), and were analysed separately. Attention was paid to policy wording, since major policy differences can result from subtle differences in wording as to whether rules are voluntary (discretionary) or mandatory (non-discretionary) (Cashore 1997, McDermott *et al.* 2009). Data for the study were drawn from Forest Acts, Policies, and forest decentralisation guidelines in each of the study country.

Actors

The underlying contention of the decentralisation framework is that under deconcentration and delegation, power would be transferred to appointed local actors or low-level government agencies and semi-autonomous organization(s) respectively (Agrawal and Ribot 1999). Whilst for full devolution, local actors should be elected by, and representative of, all groups

TABLE 2 *Forms of forest policy in the study countries*

	National legislation	Local legislation	National policy		Local policy
Term use in each country	Act in Tanzania, Kenya, Uganda, Malawi, Zambia and Zimbabwe and Proclamation in Ethiopia	Ordinance	Policy	Guideline†	Management plan
Who creates	Executive (govt, usually a specific ministry) but is then approved / amended by parliament	Municipal Government	Ministry	Ministry	Village assembly/ Local community at village level†
Purpose	Provide directive or legal framework to implement the objectives and goals stated in Forest policy	Provide directive or legal framework to implement the objectives and goals stated in Forest Policy	Guide decisions and achieve rational outcomes	Set out the requirements and procedures for achieving goals and objectives stated in forest policy documents	Sets out the management approach and goals together with a framework for achieve policy objectives
Legal effect	Legally enforced	Legally enforced	May not be legally binding	May not be legally binding	May be legally enforced

† “Guideline” means PFM guidelines in Kenya and Ethiopia. A Field and Lessons Manual for PFM in Malawi. Guidelines for the Registration, Declaration and Management of Community Forests and Guidelines for Implementing Collaborative Forest Management in Uganda. Community Based Forest Management Guidelines and Joint Forest Management Guidelines in Tanzania.

† Management plans are also influenced by national policies, and often by local forest officers.

within the community (Agrawal and Ribot 1999). Although the Rio Declaration is silent on whether members in local committee need to be elected, it does require local committee to be representative of all groups within the community.

Empowerment

In this framework, empowerment refers to (1) capacity to manage resources; (2) authority to make decisions and rules, and then approve and implement these rules; (3) the degree to which communities adjacent to forests can decide about the use and access of forest resources. In deconcentration, delegation and devolution, members of the forest committee should be empowered with skills on forest governance, including accounting and record keeping (Agrawal and Ribot 1999). However, for decentralised forest governance to achieve full devolution, it is also necessary to empower ordinary community members with management capacity and for them to have access to information relevant to forest management so as to enhance their participation and representation in forest decision-making (Agrawal and Ribot 1999, Chinangwa *et al.* 2016; UN, 1992, p. 270). In addition, the Rio Declaration requires policies to develop forest resource dispute-resolution arrangements for achieving sustainable forest management (UN, 1992, p. 279).

For decentralised forest governance to achieve deconcentration, delegation and devolution, local communities should be empowered with enforcement powers that can be further divided into: power to create rules, approve or modify old ones, power to implement the rules and to ensure compliance with the rules (Agrawal and Ribot 1999, UN, 1992, p. 104). The Rio Declaration elaborates further and specifies that policies should provide for the active participation of local

communities in formulation of national policies, laws and programmes relating to resource management and other development processes that may affect them and for their initiation of proposals for such policies and programmes (UN, 1992, p. 104).

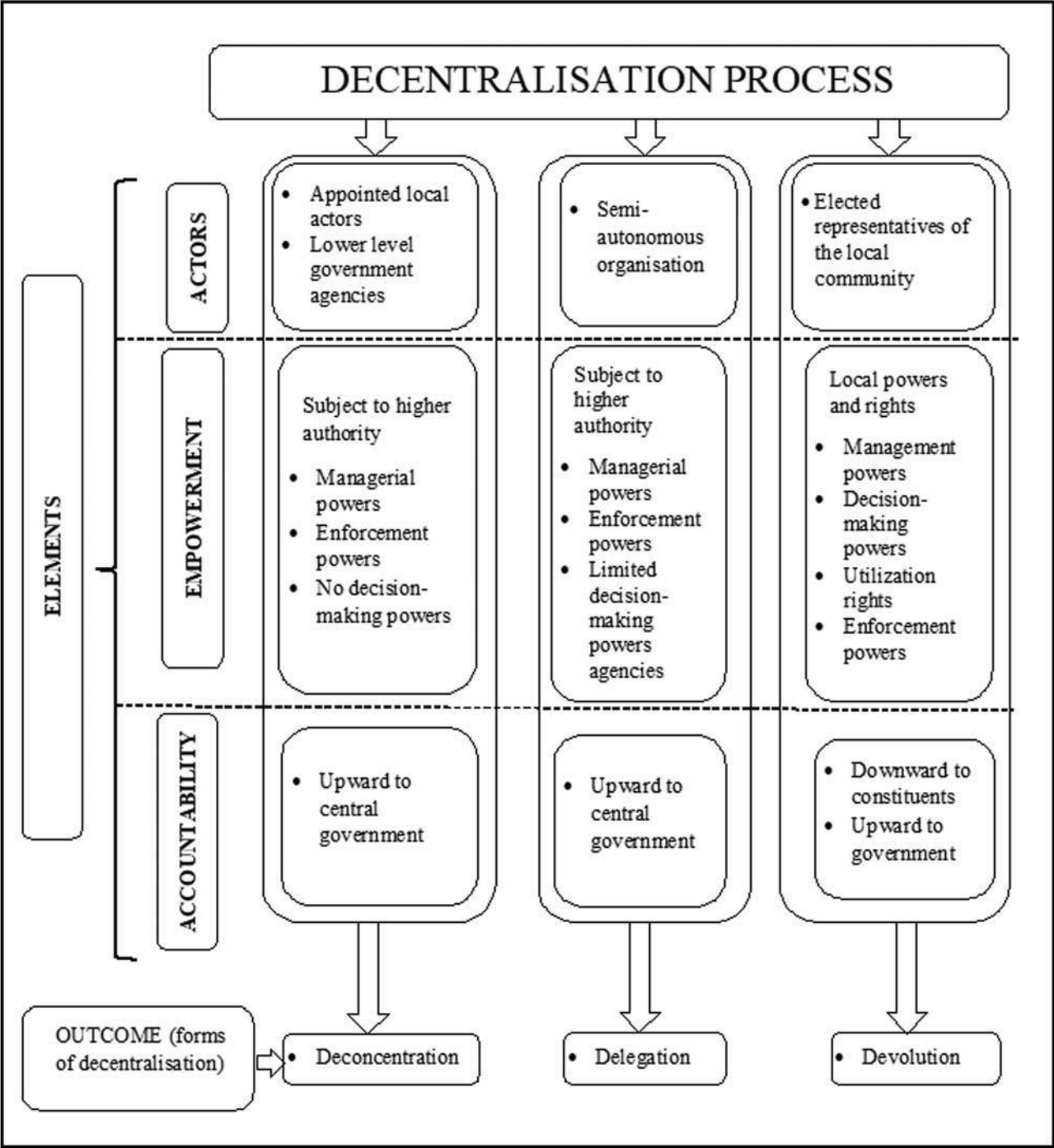
For decentralised forest governance to achieve deconcentration, there are no requirements for empowerment of actors with decision-making. In delegation, local institutions should be empowered with limited decision-making. Furthermore, the Rio Declaration is in line with Agrawal and Ribot (1999), by stating that local communities need to be actively involved in all decision-making processes with special consideration of marginalised groups e.g. women and poorest individuals so as to achieve devolution and sustainable forest management (Agrawal and Ribot 1999, UN, 1992, p. 270).

For decentralised forest governance to achieve deconcentration or delegation there is no specified need to empower committees and ordinary community members with utilization rights. In order to achieve devolution, policies need to specify clear mechanisms for sharing benefits that will allow equality in accessing benefits between all major groups (Agrawal and Ribot 1999, Cronkleton *et al.* 2012 and UN, 1992, p. 270). “Transferring power without accountable representation is dangerous and establishing accountable representation without powers is empty” (Ribot 2002, p.1).

Accountability

Accountability is a critical element that allows one to be both accounted to, and be held accountable by, others (Oyono 2004). Appointed local actors or low-level government agencies and semi-autonomous organizations, in deconcentration

FIGURE 1 Decentralisation framework adopted from Agrawal and Ribot (1999)



and delegation respectively, should be upwardly accountable to central government (Agrawal and Ribot 1999). In devolution, powers and rights should be devolved to elected members of local committee who will be downwardly accountable to the local communities and upwardly to government (Agrawal and Ribot 1999). Downward accountability is very important in devolution since it empowers other individuals in the community (Agrawal and Ribot 1999). In addition, upward accountability facilitates protection and management of public goods, such as watershed protection (Oyono 2004).

In connection to that, there should be continued involvement of state actors to facilitate the implementation of the decentralised forest governance on the ground. These actors should also be both upwardly accountable to central government as well as downwardly accountable to the local communities (Oyono 2004). The Rio Declaration is silent on accountability to constituents or government. However, it is in line with Agrawal and Ribot’s framework in suggesting participation of non-governmental organizations; international and regional organizations as a fundamental prerequisite for achieving

devolution and sustainable forest management (Agrawal and Ribot 1999: p.5 and UN, 1992: p. 104).

In order to understand the nature of accountability, it is necessary to make a detailed assessment of how and to whom actors are accountable (Agrawal and Ribot 1999). The most commonly cited mechanisms used to enforce accountability are electoral processes; third party monitoring; auditing and evaluations; public reporting and existence of sanctions that are enforced (Ackerman 2004).

RESULTS

Actors

The local institutions specified in Tanzania's Village Land Forest Reserves and Malawi's Community Forest policies have the potential to achieve full devolution, as the decentralisation policies require members of the Village Natural Resource Committees to be duly elected by their constituents and representative of all groups in the community (see Table 3 and appendix 1). However, Tanzanian Community Forest Reserves policies only require local institutions to be a group of persons desirous of managing a forest reserve: this could achieve delegation. Likewise, in Kenya, Uganda and Ethiopia, decentralised forest policies have the potential to achieve delegation rather than deconcentration or full devolution, since the policies allow committee members to be elected by, and representative of, only a small group of people in the community.

Empowerment

Management capacity

Policies for decentralised forest governance in all of the study countries are deficient in empowering local institutions with full management capacity, though to different degrees (see Table 3 and appendix 1). All policies except those in Tanzania and Malawi explicitly address the need to empower elected members of forest committees with strategies to prevent and manage forest use conflicts. There is a remarkable similarity across all the study countries in the absence of clear national commitment to ensuring local community awareness (both committee members and ordinary members) of their rights over forest management, access and use.

Decision making powers

Only Tanzanian Village Land Forest Reserves allow for full devolution. All other policies empower local actors with only limited decision-making over management and utilization of the forest resources (see Table 3 and appendix 1). In Tanzania (JFM), Malawi, Kenya, Uganda and Ethiopia, forests are managed under a joint agreement between local actors and government. Likewise, policies for decentralised forest governance in all the study countries (except in Tanzanian Village Land Forest Reserves) require forest staff to be

involved in the implementation of the approach e.g. participation in decision making with regard to management and utilization of forest resources. This may limit the amount of power and level of influence that local actors may exercise upon approach implementation.

Utilization rights

Utilization rights concern the legal entitlement of all members in the community to have equitable access to, and use of, the forest resource, income generating activities initiated by the decentralisation initiative, financial benefits accrued from selling harvested forest products, permit and penalty fees. Policies for decentralised forest governance in the study countries all go some way towards achieving this but there are differences on how actors will be empowered with utilization rights (see Table 3 and appendix 1). Only Tanzanian VLFR and Ugandan Community Forest are aligned with full devolution, since the policies empower local communities to use 100% of the benefits obtained from the programme. There is some ambiguity in Malawi about whether the local community are able to retain 100% of the benefits in Community Forest, because policies for decentralised forest governance require forest staff to be involved in the implementation of the approach. Under policies for decentralised forest governance in Kenya, Ethiopia and all other countries in forests that are managed under joint agreement between communities and government, the utilization rights are limited to those outlined in the Joint Management Agreement. In addition, there is an absence of a clear mechanism for sharing forest benefits from Joint Forest Management policies in Tanzania, Kenya, Uganda and Ethiopia.

Enforcement powers

Policies in all the study countries are deficient in empowering forest committees with enforcement powers (e.g. power to create rules, give or withhold final approval, or modify old ones, power to implement the rules, and power to take offenders of illegal activities to court), hence may not allow for full devolution (see Table 3 and appendix 1). Only VLFR in Tanzania empowered Village Natural Resource Committees to take offenders of large-scale illegal activities to court. Elsewhere, all cases of serious encroachment need to be reported to Forestry Departments for assistance, this limits devolution and is likely to frustrate local communities. Only VLFR and JFM in Tanzania state clear strategies for exclusion of outsiders. Here policies for decentralised forest governance require Village Natural Resource Committees to provide a list of the rules and punishments to Village Councils of neighbouring villages to inform their own people.

There is a remarkable similarity in the absence of clear national commitment in policies for decentralised forest governance to empower local actors to have the final say on approving forest by-laws. Forest by-laws are required to be finally approved by the local authority or the Director of Forests, giving them a veto.

TABLE 3 Comparing policies for decentralised forest governance against decentralization framework and the Rio Declaration

Critical element in decentralization framework developed Agrawal and Ribot 1999	Tanzania VLF	Tanzania FM	Tanzania CF	Kenya	Uganda CFM	Uganda CF	Malawi CF management	Malawi CF	Ethiopia
Actors									
Forests are managed by elected local institutions (Dv)	(S1) ✓	(S1) ✓	(S1) X	(S3) ✓	(S4) ✓	(S4) ✓	(S2) ✓	(S2) ✓	(S5) ✓
Members of local institutions are representative of all groups in the community- (Dv+ Rio Declaration)	(S1) ✓	(S1) ✓	(S1) X	(S3) X	(S4) X	(S4) X	(S2) ✓	(S2) ✓	(S5) X
Forests are managed by appointed members of forest committee or lower government agencies- (Dc)	X	X	X	X	X	X	X	X	X
Forests are managed by semi-autonomous organization-(DI)	(S1) X	(S1) X	(S1) X	(S3) ✓	(S4) ✓	(S4) ✓	(S2) X	(S2) X	(S5) ✓
Empowerment									
Elected members of local institutions in Dv/ appointed members of local institution in Dc/ semi-autonomous organization in DI and ordinary members empowered with skills of forest governance -(Dv + Dc + DI+ Rio Declaration)	(S6) X	(S6) X	(S6) X	(S8) X	(S9) X	(S9) X	(S7) X	(S7) X	(S10) X
Appointed members of local institutions in Dc/ semi-autonomous organization in DI/ elected members of local institutions in Dv and ordinary members empowered to formulate their own forest by-laws (Dv + Dc+ DI + Rio Declaration)	(S21) ✓	(S21) ✓	(S21) X	(S23) X	(S24) ✓	(S24) ✓	(S22) ✓	(S22) ✓	(S25) ✓
Appointed members of local institutions in Dc/ elected members of local institutions in Dv and ordinary members empowered to finally approve rules -(Dv + Dc + DI)	(S21) X (S21) X (S21) X (S23) X (S24) X (S24) X (S22) X (S22) X (S25) X								
Appointed members of local institutions in Dc / semi-autonomous organization in DI/ and elected members of local institutions in Dv empowered to exclude outsiders (taking offenders to court)- (Dv + Dc + DI)	(S21) ✓	(S21) ✓	(S21) X (S23) X (S24) X (S24) X (S22) X (S22) X (S25) X						
All local communities are empowered with full and equal rights in accessing PFM benefits -(Dv+ Rio Declaration)	(S16) ✓	(S16) X	(S16) ✓	(S18) X	(S19) X	(S19) ✓	(S17) X	(S17) ✓	(S20) X
All local communities empowered to participate in decision making over management and utilization of the resources- (Dv+ Rio Declaration)	(S11) ✓	(S11) X	(S11) X	(S13) X	(S14) X	(S14) X	(S12) X	(S12) X	(S14) X
Active involved of all local communities in decision-making with special consideration of marginalised groups e.g. women and poorest individuals- (Dv + Rio Declaration)	X	X	X	X	X	X	X	X	X
No decision making powers to local institutions and local communities -(Dc)	X	X	X	X	X	X	X	X	X
Limited decision making powers agencies -(DI)	(S11) X	(S11) ✓	(S11) ✓	(S13) ✓	(S14) ✓	(S14) ✓	(S12) ✓	(S12) ✓	(S15) ✓

TABLE 3 (Continued)

Critical element in decentralization framework developed Agrawal and Ribot 1999	Tanzania VLFR	Tanzania JFM	Tanzania CFR	Kenya	Uganda CFM	Uganda CF	Malawi's management	Malawi CF	Ethiopia
Full utilization rights to local institutions and local communities	(S16) ✓	(S16) X	(S16) ✓	(S18) X (S19) X	(S19) ✓	(S17) X	(S17) ✓	(S20) X	
No utilization rights to local institutions and local communities - (Dc + DI)	X	X	X	X	X	X	X	X	
Accountability									
Members of local institutions are elected by all members of the community- (Dv)	(S26) ✓	(S26) ✓	(S26)	X (S28) X (S29) X	(S29) X	(S27) ✓	(S27) ✓	(S30) X	
Members of local institutions are appointed by government officials- (Dc)	X	X	X	X	X	X	X	X	
Members of local institutions are downward accountable to all members of the community -(Dv)	(S26) ✓	(S26) ✓	(S26)	X (S28) X (S29) X	(S29) X	(S27) ✓	(S27) ✓	(S30) X	
Members of local institution are upward accountable to government - (Dv + Dc+ DI)	(S26) ✓	(S26) ✓	(S26) X	(S28) ✓	(S29) X	(S29) ✓	(S27) ✓	(S27) ✓ (S30) X	
All local residents have the right to be involved in PFM activities- (Dv + Rio Declaration)	(S26) ✓	(S26) ✓	(S26)	X (S28) X (S29) X	(S29) X	(S27) ✓	(S27) ✓	(S30) X	
Terms or schedules of election for members of local institution are clearly specified -(Dv)		(S26) X	(S26) X	(S26) X (S28) X	(S29) X	(S29) X	(S27) ✓	(S27) ✓ (S30) X	
Define clear procedures for handling forest finances, public and audit sessions -(Dc + DI+ Dv Rio Declaration)	X	X	X	X	X	X	X	X	
Participation of NGOs- (Dc + Dv+ Rio Declaration)	(S26) ✓	(S26) ✓	(S26) ✓	(S28) ✓	(S29) ✓	(S29) ✓	(S27) X	(S27) X (S30) ✓	

✓ and shading=Presence of critical element, X=Silence /Absence of critical element, Dc=Deconcentration; DI=Delegation; Dv=Devolution; VLFR=Village Land Forest Reserves; JFM=Joint Forest Management; CFR=Community Forest Reserves; CFM=Collaborative Forest Management; CF=Community Forest; S=Supplementary materials paragraph

Accountability

Tanzania's Village Land Forest Reserves and Joint Forest Management (except on Community Forest Reserves) and Malawi's Community Forest and Co-management policies may achieve full devolution, because the policies require members of Village Natural Resource Committees, or Block Committees to be duly elected by their constituents to enhance downward accountability. However, the decentralisation policies in Kenya and Uganda have the potential to achieve only delegation, or privatization, in this respect since Forest Community Association Committees, Community Forest Management Committees and Communal Land Association Management Committees are downwardly accountable only to a small group of people in the community and upwardly accountable to the central government. Calling the approach community or participatory, does not mean that the approach involves all residents, since, in Kenya and Uganda a small group of people who are members of Forest Community Associations, Forest User Groups or Communal Land Associations elect members in the forest committee (see Table 3 and appendix 1). In Ethiopia, policies for decentralised forest governance failed to define to whom Forest Executive Committees are accountable and how committee members assume positions.

There is similarity in the absence of clear commitment in the policies for decentralised forest governance in all the study countries on how accountability could be enhanced. There is an absence of commitment to clear and transparent benefit-sharing mechanisms to ensure equity in case of forests that are jointly managed by government and local communities. There is an absence of clearly defined schedules of committee elections in all the study countries. In addition, procedures for handling forest finance and public audit sessions are fundamental prerequisites for achieving accountability yet are lacking in policies for decentralised forest governance. Policies for decentralised forest governance in all the study countries except in Malawi specifically allow for active participation of external partners (e.g. NGOs) in decentralisation.

DISCUSSION

The introduction of decentralised forest policies in Tanzania, Malawi, Kenya, Uganda and Ethiopia signifies a major shift away from centralized, state-led management. In these countries, policies for decentralised forest governance allow establishment of new committees that manage the forest. However, the policies in Kenya, Uganda and Ethiopia allow a non-representative group to establish institutions to manage forests, which may lead to elite dominance of decision-making and capture of benefits, resulting in the exclusion of poorer individuals and marginalised groups (Birch *et al.* 2014 and Gurung, *et al.* 2011). In such situations, forest decentralisation may end up benefiting outsider groups (Bijaya *et al.* 2016). In effect, the outcome of the policy may be a form of privatisation, enclosing previously *de facto* common land,

and even reducing the power of local residents, relative to when forests were nominally controlled by central government (Ribot 2004). Decentralised forest policies in Tanzania and Malawi require members of the committees to be elected by all members of the community, to enhance representation and reduce the risk of domination by particular social economic strata. Even here, it may be difficult to define who the community is that must be represented, and that deserves to have a say in the management of the forest. If forest resources are of particular importance to certain sectors of the community (e.g. landless households, or pastoralists) should they have greater influence over its management? Moreover, democratic elections are not sufficient to guarantee elimination of elite capture in the approach. Local elites are rich and have social capital that help them to be elected by constituents. Lund and Saito-Jensen, (2013) showed that elite capture of institutions is dynamic, and that other sectors of the community may learn to navigate the new institutions and achieve greater influence over time. However, this process is likely to be dependent on residents having basic rights to hold forest committees accountable, which are lacking in many of the policies we reviewed. It also remains to be seen whether this adaptation leads to a genuine reduction in elite capture, or simply a redistribution of power between different elites.

We found that forest decentralisation policies in Kenya, Uganda, Ethiopia and Malawi and in Joint Forest Management in Tanzania, allow forest staff to take part in management activities of decentralised forests, potentially limiting the decision making power of local communities. Since the government in these forests retains ownership, forest staff's involvement might be expected to safeguard the ownership rights and only take a role in decisions that may affect sustainability of the forest reserve, however, it may not be restricted to this (Chinangwa *et al.* 2016 and Kamoto 2007). When policies for decentralised forest governance transfer more powers to forest committees, there is a need also to have measures in the policies to ensure sharing of key management functions and decision making with all committee members and ultimately the community as a whole. Observations in Mali indicated that the role of local communities in decision-making remains unclear in the decentralisation policies, raising questions about how the government and local communities will work together and who will participate in decision-making regarding decentralisation (Becker 2001 and Benjaminsen 1997). Bodies of theory upon which decentralisation policies are based highlight that participation without redistribution of decision-making powers is an empty and frustrating process for the powerless (Arnstein 1969 and Ostrom 1990). In addition, we noted that all policies except in Malawi explicitly identify the need to empower local actors with skills in conflict management, which they may or may not have. These are important, because when conflicts in forest management are ignored or allowed to escalate, it can lead to further deforestation and degradation (Rahman 2003, Warner and Jones 1998, Warner 2000). Banana *et al.* (2005) found poor implementation of decentralised forest governance because local actors had not been empowered to resolve forest related conflicts, and if any conflicts occurred

during implementation of the approach, elected members in forest committees had to request assistance from either District Forest Offices or Sub-county level forest guards.

We found that in all the study countries, the enforcement powers transferred to local communities were unbalanced, in that the decentralised forest policies transferred powers to execute forest by-laws without the requisite power to make, alter, and finally approve them or to take offenders to local courts. Directors or local authorities retained the powers to make forest by-laws with regard to forest management, utilization and revenue sharing. This can delay the process of implementing forest decentralisation, particularly in forest areas with valuable natural capital when Directors or local authority envisage losing forest revenue generation opportunities (Nathan *et al.* 2007, Mustalahti and Lund 2010). In addition, when policies require the Director of forest to comment on and approve the final forest-bylaws this can cause elected committees to copy what the Director has prescribed to quickly get approval of the forest by-laws; similar concerns have been observed by Chinangwa *et al.* (2016). This is why Agrawal and Ribot, (1999) and Buchy and Hoverman (2000) advised that Directors of forest departments and District councils should assume an advisory and supervisory role in decentralisation, because their active involvement in the approach limits local empowerment. Our findings are in line with Mutune and Lund, (2016) and Chomba *et al.* (2015) who highlighted that in Kenya, central government retained the power to make forest rules, reducing decision-making powers and sense of ownership of members of Community Forest Associations.

We found that policies for decentralised forest governance in all the study countries lack clearly defined terms or schedules for the next election, this may compromise downward accountability of the committee members. Although elections of committee members of forest management does not seem to guarantee accountability (Chomba *et al.* 2015, Saito-Jensen *et al.* 2010), frequent elections with clear timeframes and involving all residents entitled to vote does seem a fruitful path for enhancing accountability of committee leaders to their constituencies. Mandatory record keeping, public audit-ing and procedures to oust leaders who abuse their public mandates would help to establish transparency and accountability of committee leaders during implementation of the policies. Lack of clearly defined mechanisms in the policies for imposing checks and balances within the programme may increase the opportunities for actors to undertake corruption and patronage when implementing the programme (Barbier *et al.* 2004 and White 2000). Corruption can be worse in devolved systems than centralized systems (Adam and Eltayeb 2016 and Tacconi 2007). We found that policies for forest decentralization in Malawi lack a commitment to allow participation of NGOs, especially at community level. This could enhance elite dominance and limit government accountability in terms of devolving appropriate rights and powers to local communities. NGOs who are not connected with the government may be in a good position to assist and empower local communities in demanding rights and powers to forest resources.

However, this depends on their true level of independence. In term of reducing elite dominance, NGOs can assist local communities in counterbalancing the interests of powerful groups in the community with interests in decentralised forest governance that can arise during implementation of the approach (Mustalahti and Lund 2009). NGOs can create an effective alliance among non-elites and other actors as well as a space for disadvantaged groups to sufficient exercise their power in decision making (Lund and Saito-Jensen 2013, Saito-Jensen *et al.* 2010, Classen *et al.* 2008).

CONCLUSION AND RECOMMENDATIONS

We sought to understand the extent to which decentralisation forest policies in the study countries are compatible with achieving devolution. In all five countries, policies for decentralised forest governance fail to provide for some critical elements such as democratically elected, downwardly accountable local actors and equitable benefit sharing that are required to achieve meaningful devolution. Decentralisation policies in Tanzania and Malawi may have the greatest potential to achieve devolution, as they require committee members to be elected by all residents in the area and be representative of all groups in the community, contributing to downward accountability as well as helping to prevent elite capture (Agrawal and Ribot 1999, Olowu 2003). In all cases, however, accountability could be better achieved by more clearly defining: procedures for handling forest finance, public audit sessions and central government oversight of local government. Whilst this is not an exhaustive list of the ways to achieve accountability, these are important first steps to ensure necessary parameters are in place. Decentralisation policies in Uganda, Kenya and Ethiopia are less aligned with devolution because the policies allow members of the forest committee to be representative of, and elected by, only a group of people in the community who wish to manage the forest reserve, potentially excluding marginalised groups. This may lead to elite capture, and effective privatisation of management, enclosing previously *de facto* common pool resources. In all the study countries, the state has transferred to local communities responsibility for enforcing forest by-laws but not powers to give or withhold final approval, hence compromising their decision-making powers and achievement of local empowerment.

If donors and governments want to devolve real power to local communities, they need to reform PFM policies to ensure that members of forest committees are locally elected and representative of all residents, as well as empower local communities with full enforcement powers.

We acknowledge that examining policies is only part of the story, and implementation may further exacerbate, or compensate for, some of the shortcomings found. However, this study shows that the policy frameworks for forest decentralisation in Eastern Africa, are not at present sufficient to ensure devolution.

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REFERENCES

- ACKERMAN, J. 2004. Co-governance for accountability: beyond “exit” and “voice.” *World Development* **32**(3): 447–463.
- ADAM, Y.O. and ELTAYEB, A.M. 2016. Forestry decentralization and poverty alleviation: A review. *Forest Policy and Economics* **73**: 300–307.
- AGRAWAL, A. and RIBOT, J.C. 1999. Accountability in Decentralization: A Framework with South Asian and African Cases. *Journal of Developing Areas* **33**(4): 473–502.
- ALDEN WILY, L. 2002. *Participatory forest management in Africa: an overview of progress and issues*. In defining the way forward: sustainable livelihoods and sustainable forest management through participatory forestry; 18–22 February 2002. Arusha, United Republic of Tanzania; pp. 31–58. FAO, Rome. Retrieved from <http://www.fao.org/3/Y4807B/Y4807B03.pdf>. Accessed: July 10, 2019.
- ARNSTEIN, S.R. 1969. A Ladder Of Citizen Participation. *Journal of the American Planning Association* **35**(4): 216–224.
- BANANA, Y.A., GOMBYA-SSEMBAJJWE, W. and BAHATI, J. 2005. *Decentralization of Forestry Resources in Uganda: Realities or Rhetoric?* Makerere University, Kampala, Uganda. 25 pp. Retrieved from <http://makir.mak.ac.ug/handle/10570/1584?show=full>. Accessed: May 10, 2016.
- BARBIER, E.B., DAMANIA, R. and LÉONARD, D. 2004. Corruption, trade and resource conversion. *Journal of Environmental Economics and Management* **50**: 276–299.
- BARLETT, A.G. and MALLA, B.Y. 1992. Local forest management and forest policy in Nepal. *Journal of World Forest Resource Management* **6**: 99–116.
- BECKER, L. 2001. Seeing green in Mali’s woods: colonial legacy, forest use, and local control. *Ann. Assoc. Am. Geogr* **91**: 504–526.
- BEKELE, T. and ANGO, T.G. 2015. Do interventions from participatory action research improve livelihood and reduce conflicts over forest resources? A case study from South Central Ethiopia. *Small-Scale Forestry* **14**: 441–458.
- BENJAMINSEN, T. 1997. Natural resource management, paradigm shifts, and the decentralization reform in Mali. *Human Ecology* **25**: 121–143.
- BIJAYA, D., ACADEMY, G.C.C., XU, Z. and ACADEMY, C. 2016. Community forestry and livelihood in Nepal: A review. *The Journal of Animal and Plant Sciences* **26**(1): 1–12.
- BIRCH, J.C., THAPA, I., BALMFORD, A., BRADBURY, R.B., BROWN, C., BUTCHART, S.H.M. and THOMAS, D.H.L. 2014. What benefits do community forests provide, and to whom? A rapid assessment of ecosystem services from a Himalayan forest, Nepal. *Ecosystem Services* **8**: 118–127.
- BOWLER, D.E., BUYUNG-ALI, L.M., HEALEY, J.R., JONES, J.P.G., KNIGHT, T.M. and PULLIN, A.S. 2012. Does community forest management provide global environmental benefits and improve local welfare? *Frontier Ecology and Environment* **10**(1): 29–36.
- BRUCE, J.W. 1999. *Legal bases for the management of forest resources as common property*. Retrieved from <http://www.fao.org/3/x2581e/x2581e00.pdf>. Accessed: March 21, 2018.
- BUCHY, M.H.S. 2000. Understanding public participation in forest planning: a review. *Forest Policy and Economics* **1**: 15–25.
- CASHORE, B.W. 1997. *Governing forestry: environmental group influence in British Columbia and the US Pacific Northwest*. PhD thesis, (327pp). University of Toronto, Toronto.
- CBD. 2003. *Hand Book of Convention on Biological Diversity*: Montreal, QC, Canada, 937 pp.
- CHINANGWA, L., SINCLAIR, F., PULLIN, A.S., HOCKLEY, N., CHINANGWA, L., SINCLAIR, F. and HOCKLEY, N. 2016. Can co-management of government forest reserves achieve devolution? Evidence from Malawi. *Forests Trees and Livelihoods* **25**(1): 41–58.
- CHOMBA, S.W., NATHAN, I., MINANG, P.A. and SINCLAIR, F. 2015. Illusions of empowerment? Questioning policy and practice of community forestry in Kenya. *Ecology and Society* **20**(3): 2.
- CLASSEN, L., HUMPHRIES, S., FITZSIMONS, J., KAAR-IA, S., JIMÉNEZ, J., SIERRA, F. and GALLARDO, O. 2008. Opening participatory spaces for the most marginal: Learning from collective action in the Honduran hillsides. *World Development* **36**(11): 2402–2420.
- CRONKLETON, P., PULHIN, J.M. and SAIGAL, S. 2012. Co-management in community forestry: how the partial devolution of management rights creates challenges for forest communities. *Conservation and Society* **10**(2): 91–102.
- CROOK, R.C. and MANOR, J. 1998. *Democracy and decentralization in South- East Asia and West Africa: participation, accountability, and performance*. (illustrate). Cambridge: Cambridge University Press. <https://doi.org/10.1017/9780511607899>. Accessed: June 17, 2016.
- DAS, B.K. 2019. Denial of rights continues: How legislation for “democratic decentralisation” of forest governance was subverted in the implementation process of the forest rights act in India. *European Journal of Development Research*.
- EGUNYU, F. and REED, M.G. 2015. Social learning by whom? Assessing gendered opportunities for participation and social learning in collaborative forest governance. *Ecology and Society* **20**(4): 44.
- FDRE, 2007. *Forest Development Conservation and Utilization Policy and Strategy*. Ministry of agriculture and rural development. Government Printer. Addis Ababa, Ethiopia.

- GARCÍA-LÓPEZ, G.A. 2019. Rethinking elite persistence in neoliberalism: Foresters and techno-bureaucratic logics in Mexico's community forestry. *World Development* **120**: 169–181.
- GOK. 2005. *Laws of Kenya, Kenya the forests act*. Government Printer, Nairobi, Kenya.
- GOM. 1997. *National forest act*. Government Printer, Lilongwe, Malawi.
- GOU. 2003. *The national forestry and tree planting act*. Government Printer, Kampala, Uganda.
- GOU. 2015. *For the registration, declaration and management of community forests*. Government Printer, Kampala, Uganda.
- GURUNG, A., KARKI, R. and BISTA, R. 2011. Community-based forest management in Nepal: Opportunities and challenges. *Resources and Environment* **1**(1): 26–31.
- HALLER, T., GALVIN, M., MEROKA, P., ALCA, J. and ALVAREZ, A. 2008. Who gains from community conservation?: Intended and unintended costs and benefits of participative approaches in Peru and Tanzania. *Journal of Environment and Development* **17**(2): 118–144.
- HAMZA, K.F.S. and KIMWER, E.O. 2007. Tanzania's forest policy and its practical achievements with respect to community based forest management in MITMIOMBO Forest Research 24–33.
- ITTO. 2003. Principles, criteria and indicators for the sustainable management of African natural tropical forests. ITTO Policy Development Series 14. Yokohama, Japan.
- JANERIO, R. DE. 1992. United Nations Conference on environment and development rio de janerio, Brazil, 3–14 June 1992.
- KAMOTO, J. 2007. Improving forest beekeeping through monitoring in Chimaliro, Malawi. In I. Guijt (Ed.), *Negotiated learning: collaborative monitoring in forest resource management*. (pp. 104–113). Washington (DC): Resources for the Future.
- KIIZA, J., MUBAZI, J.K.E. and KIBIKYO, D.L. 2007. Understanding economic and institutional reforms in Uganda. In Mensah, J. (ed) *Understanding economic in Africa: A tale of seven nations*, Basingstoke: Palgrave Macmillan, 57–94 pp.
- KOWERO, G., KAONEKA, R.S., NHANTUMBO, I., GONDO, P. and JUMBE, C.B. 2003. Forest policies in Malawi, Mozambique, Tanzania and Zimbabwe. In G. Kowero, B.M. Campbell, and U.R. Sumaila (Eds.), *Policies and governance structures in woodlands of Southern Africa*. Center for International Forestry Research (CIFOR), Jakarta 10065, Indonesia. 165–186 pp.
- LAMBRICK, F.H., BROWN, N.D., LAWRENCE, A. and BEBBER, D.P. 2014. Effectiveness of community forest-ry in prey long forest, Cambodia. *Conservation Biology* **28**(2): 372–381.
- LEMENIH, M. and BEKELE, M. 2008. *Participatory forest management best practices, Lesson learnt and and challenges encountered. The Ethiopian and Tanzanian experiences*. 66 pp. Retrieved from <http://thereddddesk.org/resources/participatory-forest-management-best-practices-lesson-learnt-and-challenges-encountered>. Accessed. August 3, 2016.
- LINDSAY, J. 2004. *Legal frameworks and access to common pool resources. FAO legal papers online No39*. Retrieved from <http://www.fao.org/legal/pub-e.htm>. Accessed. March 25, 2019.
- LUND, J.F., RUTT, R.L. and RIBOT, J. 2018. Trends in research on forestry decentralization policies. *Current Opinion in Environmental Sustainability* **32**: 17–22.
- LUND, J.F. and SAITO-JENSEN, M. 2013. Revisiting the issue of elite capture of participatory initiatives. *World Development* **46**: 104–112.
- LUND, J.F. and TREUE, T. 2008. Are we getting there? Evidence of decentralized forest management from the Tanzanian miombo woodlands. *World Development* **36**(12): 2780–2800.
- LYNCH, O.J. 1998. Law, pluralism and the promotion of sustainable community-based forest management. *Unasylva* **49**(194): 52–56.
- MANOR, J. 1999. *The political economy of democratic decentralization. Directions in development*. The world bank. Washington, D.C. 145 pp.
- MCDERMOTT, L.C., CASHORE, B. and KANOWSKI, P. 2009 Setting the bar: An international comparison of public and private policy specifications and implications for explaining policy trends. *Journal of Intergrative Environmental Sciences* **6**(3): 1–21.
- MEKONNEN, A. and BLUFFSTONE, R. 2015. Forest tenure reform in Ethiopia. In R.A. Bluffstone, and E.J. Robinson (Eds.), *Forest tenure reform in Asia and Africa: Local control for improved livelihoods, Forest management, and Carbon sequestration*. Taylor and Francis; Routledge. New York. 56–73 pp.
- MOGOI, J., OBONYO, E., ONGUGO, P., OEBA, V. and MWANGI, E. 2012. Communities, Property rights and forest decentralisation in Kenya: Early Lessons from Participatory Forestry Management. *Conservation and Society* **10**(2): 182–194.
- MOLICK, S.A., KHALILUR RAHMAN, M., NABIUL ISLAM KHAN, M. and NAZMUS SADATH, M. 2018. Evaluation of good governance in a participatory forestry program: A case study in madhupur sal forests of Bangladesh. *Forest Policy and Economics* **95**: 123–137.
- MUSTALAHTI, I. and LUND, J.F. 2009. Where and how can participatory forest management succeed? Learning from Tanzania, Mozambique, and Laos. *Society and Natural Resources* **23**: 31–44.
- MUTUNE, J.M. and LUND, J.F. 2016. Unpacking the impacts of “participatory” forestry policies: Evidence from Kenya. *Forest Policy and Economics* **69**: 45–52.
- NATHAN, I., LUND, J.F., GAUSSET, Q. AND ANDERSEN, S.K. 2007. On the promises of devolution: Overcoming the constraints of natural resource management in a village in Tanzania. *The Journal of Transdisciplinary Environmental Studies* **6**(1).
- NGAGA, Y., LUOGA, E.J., SEKIBAHA, F.M. and CHIRAGI, J.S. 2003. Report on capacity plan in the districts management of natural resources programme operates in Tanzania. Ministry of Natural Resources and Tourism. Tanzania, 85 pp.

- ODERA, J.A. 2009. The changing forest management paradigm in Africa: A case for community based forest management system the genesis of community based forest. *Discovery and Innovation* **21**(1): 27–35.
- OLOWU, D. 2003. Local institutional and political structures and processes: Recent experience in Africa. *Public Administration and Development* **23**: 41–52.
- OSTROM, E. 1990. *Governing the commons: The evolution of institutions for collective action*. Cambridge university press, Cambridge.
- OYONO, P.R. 2004. Assessing accountability in Cameroon's local Forest management. Are representatives responsive. *African Journal of Political Science*, 9(1), 126–136.
- OYONO, P.R. 2007. Is decentralization in natural resource management leading to livelihoods improvement and sustainability? Evidence from Central Africa. In: Kelbessa, E. and De Stoop, C. (eds.). *Participatory forest management (PFM), biodiversity and livelihoods in Africa*. 19–35 pp. Retrieved from http://www.pfmp-farmsos.org/Docs/pfm_conference_proceeding.pdf. Accessed: July 2, 2016.
- PERSSON, J. and PROUSE, M. 2017. Collective action on forest governance: An institutional analysis of the Cambodian community forest system. *Forest Policy and Economics* **83**: 70–79.
- RAHMAN, L.M. 2003. Conflict management in participatory forest development: Insights from Bangladesh. In *XII World Forestry Congress*. Quebec, Canada. Retrieved from <http://www.fao.org/docrep/ARTICLE/WFC/XII/0010-C1.HTM>. Accessed: October 25, 2016.
- RIBOT, J. 2002. *Democratic decentralization of natural resources: institutionalizing popular participation*. World Resources Institute. Washington, DC. 35 pp.
- RIBOT, J. 2004. *Waiting for Democracy, The Politics of Choice in Natural Resource Decentralization*. World Resources Institute. Washington, DC. 154 pp.
- RONDINELLI, D.A., MCCULLOUGH, J.S. and JOHNSON, R.W. 1989. Analysing Decentralization Policies in Developing Countries: a Political-Economy Framework. *Development and Change* **20**: 57–87.
- SAITO-JENSEN, M., NATHAN, I. and TREUE, T. 2010. Beyond elite capture? Community-based natural resource management and power in Mohammed Nagar village, Andhra Pradesh, India. *Environmental Conservation* **37**(3): 327–335.
- SCHRECKENBERG, K. and LUTTRELL, C. 2009. Participatory forest management: a route to poverty reduction? *International Forestry Review* **11**(2): 221–238.
- SEN, D. 1982. Social forestry in tribal development - Uyas, Nn. *Journal of Rural Development* **1**(5): 832–834.
- SENGANIMALUNJE, T.C., CHIRWA, P.W. and BABALOLA, F.D. 2015. Potential of Institutional arrangements for sustainable management of forests under co-management with local forest organisations in mua-livulezi forest reserve, Mtakataka, Malawi. *Source: International Forestry Review* **17**(3): 340–354.
- TACCONI, L. 2007. Decentralization, forests and livelihoods: theory and narrative. *Global Environmental Change* **17**(3): 338–348.
- TIMSINA, N.P. 2003. Promoting social justice and conserving montane forest environments: a case study of Nepal's community forestry programme **169**(3): 236–242.
- UN. 1992. United Nations. *conference on environment and development*. Rio de Janeiro, Brazil,. Retrieved from <http://www.un.org/esa/sustdev/agenda21.htm>. Accessed: July 8, 2016.
- UN. 2012. United Nations. The future we want: Outcome document adopted at Rio+20 conference on sustainable development. *Rio de Janeiro Meeting*, (June), 1–49. <https://doi.org/10.1126/science.202.4366.409>. Accessed: September 7, 2016.
- UN. 2015. United Nations. The millennium development goals report. *United Nations*, 72. <https://doi.org/978-92-1-101320-7>. Accessed May 4, 2016.
- URT. 2002. *Forest Act of Tanzania. no.14 of 7th June 2002*. Government Printer. Dar es Salaam. Tanzania.
- VYAMANA, V. 2009. Participatory forest management in the eastern arc mountains of Tanzania: who benefits? *International Forestry Review* **11**(2): 239–253.
- WARNER, M. 2000. *Conflict management in community-based natural resource projects: experiences from Fiji and Papua New Guinea* (No. 135). London. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.168.4002&rep=rep1&type=pdf>. Accessed April 6, 2016.
- WARNER, M. and JONES, P. 1998. Assessing the need to manage conflict in community-based natural resource projects. *Natural Resource Perspectives* No35. 14 pp. Retrieved from <https://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/4447/35-conflict-community-based-natural-resource-projects.pdf?sequence=1&isAllowed=y>. Accessed: October 17, 2016.
- WHITE, A. and MARTIN, A. 2002. *Who owns the world's forests? Forest tenure and public forests in transition*. Center for International Environmental law. Forest Trends, Washington, DC. 32 pp.
- WHITE, G. 2000. Why governments waste natural resources: Policy failures in developing countries. By Ascher William. Baltimore, MD: Johns Hopkins University Press, 1999. 333p. \$65.00. *American Political Science Review* **94**(4): 957–958.
- WORLD BANK. 1992. Empowering villages to manage their natural resources: Rural land policy in Tanzania. A world bank white cover paper. Southern Africa Department, Agriculture Operations Division.

Appendix 1: Results summarised in Table 3

Actors

S1: Policies for decentralised forest governance in Tanzania require local institutions¹ at village level in Village Land Forest Reserves and Joint Forest Management to be either established as Village Natural Resource Committees (VNRC)² or the existing committee of the Village Council³. Likewise, members of these committees are required to be elected by, and representative of, all groups and parts in the community⁴, with special consideration of marginalised groups. E.g. at least one third of the Village Natural Resource Committees members must be women, likewise people from different sub villages must be represented – especially those sub villages that are close to the forest area (URT 1998. PS 3.p.27, URT 2002, s.33.p.52, URT 2007, p.5 and 12, URT 2013, p.4). However, in Community Forest Reserves the policies allow Community Forest Reserves to be managed by Community Forest Management Group⁵, formed by any group of persons who are members of a village or who are living in or near to a forest, or any other groups of persons who are managing or desirous of managing a forest reserve (URT, 2002. s. 42 – 48. p.66, URT, 2007.p.7).

S2: In Malawi, Community Forest and Co-management policies define clearly that members of local institution must be elected and representative of the local forest organisation⁶ (GoM, 1997. s.25. p. 15 and s 31, p. 16, GoM, 2010. p.47, GoM 2015, p. 11). The function and terminology used for a local forest organisation is determined by the land and tree tenure arrangements and the rights to forest resources in their area of operation (GoM, 2010. p.47). For example, members of the local forest organisation in village forest areas that is designated to benefit the entire village community, are elected and representatives of all resident in a village. In other forest areas, members in local forest organisations represent groups responsible for managing the forest area. In the case of com-mon access resources, found in village forest areas designated for the benefit of that entire village community, the local organisation is normally termed as the Village Natural Resource Management Committee⁷ in Village forest area or block committee in Co-managed forest reserves (GoM, 2010. p.47).

S3: In Kenya, Participatory Forest Management policies state that the local institution in forest decentralization are Community Forest Associations Committee and members in

the committee are elected to represent all groups within the Community Forest Association, but this association does not have to include all residents. Similarly, the composition of the Community Forest Association Committee is guided by the constitution of the association (GoK, 2005, p.3, GoK, 2007, p.25, GoK, 2014.p.16).

S4: In Uganda, forest decentralization policies state that local institutions in Collaborative Forest Management and Community Forest are the Communal Land Association Management Committee and Community Forest Management Committee respectively. Members in these committees are not representatives all residents but only members of the Communal Land Association and Forest User groups in Collaborative Forest Management and Community Forest respectively (GoU, 2003. p.34, 52 and 53, GoU, 2015.p.6).

S5: In Ethiopia, forest decentralization policies specify that the local institution in Participatory Forest Management is the Forest Executive Committee, elected from a Forest Cooperative made of elders, youth, women, and different interest groups in the community (FDRE, 2007.s.4.4.p.11, FDRE, 2007.s.3.p.7, FDRE, 2012.p.2, 41 and 47).

Empowerment

Management capacity

S6: In Tanzania Village Land Forest Reserves and Joint Forest Management policies require members in Village Natural Resource Committees to be trained on how to hold meetings, undertaking patrols in the forest and dealing with offenders, issuing licenses and permits, keeping good records of money received, and spent by using a simple income and expenditure book (URT, 1998.PS.3 and 5, URT, 2002.s.16.p. 17. S.33.p.35, URT 2007, p.21, URT 2013, p.26).

S7: Community Forest and Co management policies in Malawi require members in Village Natural Resource Management Committee and in Block committee respectively to be aware of tenure arrangements and usufruct rights issues prior to formal registration of Participatory Forest Management so as to minimise resource use and land conflicts later following registration (GoM, 1997.s.31.p. 14, GoM, 2010. p.49).

S8: In Kenya Participatory Forest Management policies require members in the Community Forest Association

¹ “Local institutions” means actors at village levels elected by all resident at the community to guide the PFM approach.

² “Village Natural Resource Committee” means a committee elected by the Village Assembly and approved by the Village Council to act as Manager of a VLFR (URT, 2013. p.5, and UTR, 2007. p. 7).

³ “Village council” means the government of the village elected by the Village Assembly to govern all matters relating to the community, including its shared resources (URT, 2013. p.5 and URT, 2007. p. 7).

⁴ “Community” means all individuals who are resident in an area and not outsiders (Agrawal and Ribot, 1999). Precisely defining which individuals constitute the community is complex, however.

⁵ “Community Forest Management Group” means a group recognised by the Village Council and registered with the District Council that has the management authority for a Community Forest Reserve (URT, 2007. p. 7).

⁶ “Local forest organisations” are groups of individuals, households, families or communities who have come together with a common interest of managing trees, forests and forest resources (GoM, 2010. p.47).

⁷ “Village Natural Resource Management Committee” means a committee elected by stakeholders of the village forest area (GoM, 2010. p.47).

Committees to be trained in strategies for conflict resolution (GoK, 2014 p. 16, GoK, 2007. p. 31). In addition, the Participatory Forest Management guidelines require the committee members to receive exchange visits and study tours from other Participatory Forest Management areas so as to enhance their management capacity (GoK, 2007. p.31).

S9: In Uganda forest policy and Community Forest guidelines require members in Communal Land Association Management Committees to be trained in skills of conflict management, Community Forest processes and legal / policy frameworks, Community Worker Model, community forest management and extension, dynamics of society, incentives, record-keeping, practical tree nursery and establishment (GoU, 2001. PS.5. p.18, GoU, 2015. p. 18). Likewise, in Uganda the policies require members in Community Forest Management Committee to be trained on legal basis for Collaborative Forest Management, leadership, communication and group facilitation skills, negotiation skills, planning, forest management, record keeping, accountability and simple conflicts resolution method (GoU, 2001. PS.5. p.18, GoU, 2003. p.35).

S10: In Ethiopia Participatory Forest Management policies require members in Forest Executive Committees to be trained on topics like forest development, forest protection, forest utilization, and marketing, conflict management, financial management, minutes and record keeping, developing and using monitoring formats (FDRE, 2007. s.5.p.11 and s.6.2.p.15; FDRE,2012. p.45, 48 and 49).

Decision making powers

S11: In Tanzania the Forest Act defines ownership rights to forest on public land and provide rights for local communities to own Village Land Forest Reserves in such a way that actors can make their own decision on their forests. (URT, 2002.s.33. p.35). In addition, the policy empowers both committee and ordinary members with decision making over utilization of revenue from the sale of forest products obtained from Village Land Forest Reserves. In this case both committee and ordinary members may choose to share a portion with the district in return for services rendered, the percentage to be shared with the district is set by the villagers and not the district (URT, 2007.p.4). Joint Forest Management and Community Forest Reserves policies require members in Village Natural Resource Committees and Community Forest Management Group to make decisions based on Joint Management Agreement in strict accordance with the Management Plan (URT, 2013, p.45. URT, 2007, p. 12).

S12: In Malawi, Community Forest and Co management policies require Village Natural Resource Committee and Block Management Committee respectively, to consult Director of Forestry to any required decision out of the agreement. Likewise, the Forest Act allow Village Natural Resource Committee to terminate management agreement subject to the performance of unfulfilled obligations under a forest management agreement to the right of third parties (GoM, 1997.s.31.p. 14). Community Forest guidelines require Village Natural Resource Committees to make decisions independently when developing the constitution.

The Community Forest guidelines specify that the process of developing a constitution may be facilitated but not unduly guided by the forestry extension service (GoM, 2010. p. 49). S13: participatory Forest Management policies in Kenya state that a Community Forest Associations Committee can make decisions on only activities specified in Management Agreement. Likewise, any activity within a forest area, which is not included in the management plan or agreement, shall only be undertaken with the consent of the Board (GoK, 2007. p.31, GoK, 2005. s.46.p.41). Likewise, Forest Act grants power for a Director to terminate a management agreement with Community Forest Associations or withdraw a particular user right but Community Forest Associations had no power to terminate management agreements, they need to request to the Director for termination (GoK, 2005. s.48. p. 41).

S14: In Uganda Community Forest and Collaborative Forest Management policies states that any decision required needs to be made through negotiations between agreement parties (GoU, 2001. PS.5. p.18, GoU, 2003. p.26, GoU, 2015. p.35). S15: In Ethiopia Participatory Forest Management guidelines state that any decision required in Forest management which is outside the legally binding agreement needs to be agreed between government forestry service and the Forest Cooperative (FDRE, 2012. p.45).

Utilization rights

S16: Village Land Forest Reserves and Community Forest Reserve policies in Tanzania empower Village Natural Resource Committees and ordinary members Village Land Forest Reserves; Community Forest Management Group in Community Forest Reserve, with utilization rights. E.g. i). Waiving state royalties on forest produce, retaining 100% of revenue from sale of forest products ii). Levying and retaining fine, exemption from the reserved tree species list and confiscation of forest produce and equipment from illegal harvesting (URT, 2002.s.14.p 22; s. 34.p. 36 s. 65. p.68. s.78. p.74. s 97.p. 82, URT, 2007.p.4).

S17: Malawian Community Forest guidelines in particular specify that in Village Forest Areas, the VNRMC and the community have the right to retain 100% of the benefits and should share and use according to the constitution (GoM, 2010.p.78). However, the Forest Act and Co management guidelines require Block Management Committee and ordinary members to utilise only 70% of any funds obtained from the approach (GoM, 1997.s.33.p. 15, GoM, 2010.p.78). In addition, the Forest Act states that a resident of any village may collect forest produce from customary land other than village forest areas for domestic use (GoM, 1997.s. 50. p. 18).

S18: In Kenya the Forest Policy in particular states that the Government will develop an institutional framework and mechanisms for effective participation of stakeholders in forest management (GoK, 2014 p. 16). Furthermore, the Forest Act and guidelines specify that utilization rights of members of Community Forest Associations will be limited to those outlined on the forest management agreement (GoK, 2005. s. 46. p. 40, GoK, 2007. p. 31).

S19: In Uganda Community Forest policies, granted members of Communal Land Associations with rights to access all the benefits obtained from the programme. While in Collaborative Forest Management actors have limited utilization rights, all rights and benefits of the Forest User Groups must be determined during the negotiation of Collaborative Forest Management Agreement between the Responsible Body and elected negotiation team and not the forest management committee (GoU, 2003. p.33).

S20: In Ethiopia Participatory Forest Management guide-lines require benefit and revenue sharing arrangements to be defined clearly and agreed between the Forest Cooperative and Government Forestry service during the negotiation process (FDRE, 2012. p. 37). The Participatory Forest Management guidelines and forest policy specify that in principle the benefit sharing arrangement should reflect the responsibility of each agreeing party. It must be clarified from the start that benefits are tied to the level of responsibility one undertakes (FDRE, 2007, s.5. p. 12, FDRE, 2012. p. 37).

Enforcement powers

S21: In Tanzania, Village Land Forest Reserves and Joint Forest Management policies specify that the village must prepare by-laws that support the management plan (fines, sanctions, etc.) and these by-laws must be approved first by the village assembly before being forwarded to the district for final approval (URT, 2002. s. 34.p. 36. s.37.p.40, URT, 2007.p. 5, URT, 2013.p. 22). Likewise, the Forest Act specifies that the Director of Forests may prepare and publish model by-laws for the forest reserves and such by-laws may be adopted by village councils for use (URT, 2002. s. 34.p. 36. s.37.p.40). In addition, the Village Land Forest Reserves and Joint Forest Management guidelines require the Village Council to make sure that the local Primary and District Magistrates have copies of the by-laws to use if any cases relating to the matter are brought before them. Likewise, the Village Council keeps one copy in its file and also posts one copy at the Office so that everyone in the village can see it (URT, 2007.p.20, URT, 2013.p.25). The guidelines also require Village Natural Resource Committees to ensure that every village member knows the forest rules and punishments, likewise Village Natural Resource Committees need to provide a list of the rules and punishments to Village Councils of neighbouring villages to inform their own people (URT, 2013.p. 26; URT, 2007. p. 21). In addition, the Joint Forest Management guidelines states that forester needs to assist Village Natural Resource Committees in Joint Forest Management to some cases of large scale illegal activities. (URT, 2013.p.26).

S22: In Malawi Community Forest and Co-management policies specify that the Forest Minister may make rules which shall apply to all customary land outside forest reserves and protected forest areas (GoM, 1997. s. 32. p. 16). Likewise, all forest rules made by Village Natural Resource Management Committees on customary land forests shall be approved by the Minister (GoM, 1997.s.33. p. 15). In addition, Community Forest guidelines require Village Natural Resource Management Committee to develop, and

the local community to ratify, constitutions that set down clearly objectives and functions and the way in which actors will conduct forest management affairs. The constitution includes procedural rules, or by-laws, which are quite distinct from the management rules developed from a forest management plan for the regulation of forestry activities within the Village Forest Area (GoM, 2010. p. 49).

S23: In Kenya, Participatory Forest Management policies specify that the Community Forest Association's Committee and ordinary members have no power to make forest rules, however the Director may make rules for regulating the performance of PFM in consultation with the association (GoK, 2005. s.46. p.41, GoK, 2007. p. 28).

S24: The Forest Act in Uganda requires Collaborative Forest Management to be managed accordance with the regulations or guidelines issued by the Forest Minister (GoU, 2003. s.15. p.13). Likewise, the Forest Act states that local governments may make by-laws applicable to any community forest (GoU, 2005. s.19.p.15). Community Forest and Collaborative Forest Management policies in Uganda require Community Forest Management Committees and Communal Land Association Management Committees respectively, to prepare the constitution but not to approve it. The constitution must be approved by the District Registrar of Titles in Community Forest and Local Government in Collaborative Forest Management (GoU, 2015.p.17, GoU, 2003. p. 31).

S25: In Ethiopia Participatory Forest Management guidelines state that cooperative by-laws for forest management are prepared by members of the forest executive committee with assistance from the Government forest service and are first endorsed by a general assembly meeting (FDRE 2007. s.4.4. p.11 and s.5.5.p. 14, FDRE, 2012.p. 53). However, the Participatory Forest Management guidelines specify that the Participatory Forest Management plan cannot be implemented without a formal agreement and final approval of the government (FDRE, 2012, p.54). Likewise, the PFM guidelines require prosecutors, the police and the judiciary to support community and be concerned with the damages caused by offenders on Forests (FDRE, 2012. p. 51).

Accountability

S26: Village Land Forest Reserves and Joint Forest Management policies in Tanzania state that Village Natural Resource Committees need to be upwardly accountable to district councils and downwardly accountable to village councils and to the village assembly (URT, 2007.p. 21, URT, 2002, s. 33.p.35 and URT, 2013.p.26). Moreover, the Village Land Forest Reserves and JFM guidelines specified that facilitators will need to assist Village Natural Resource Committees in keeping records and submitting them to district, village council and village assembly on a regular basis (URT, 2007.p. 21, URT, 2013.p.26). Village Land Forest Reserves and JFM policies in Tanzania state that members in Village Natural Resource Committees should be elected by all village members through the village general assembly, to represent the entire village community i.e. formed from the membership of the village assembly and with due regard to gender balance

(URT, 2002, s.33.p.52, URT, 2007, p.5, URT, 2013, p.4). (Table 3). In addition, the Forest Policy also allow participation of different stakeholders in forest management e.g. executive agencies and private sector (URT, 1998.PS 6.p.31).

S27: Malawian Community Forest and Co management policies in particular specify clearly that members in Village Natural Resources Management Committees and Block Committees respectively will be held accountable to their memberships, the local forest resource rights-holders or the community it represents according to tree and land tenure, but also to the Director of Forestry for the proper management of forest resources within its jurisdiction (GoM, 2010. p.48). Moreover, the Community Forest and Co management guide-lines state that it is critical that the members in Village Natural Resource Management Committees or Block Committees be held accountable to the wider community or the rights holders on a regular basis reporting forest management progress. In addition, elections of members in the Village Natural Resources Management Committees or Block Committee will be held at least twice a year (GoM, 2010.p.49). (Table 3). Likewise, the Community Forest policies define clearly that members in Village Natural Resource Management Committees must be elected by all members of local forest organisation (GoM, 2010. p.47).

S28: Participatory Forest Management policies in Kenya require Forest Community Association Committees to be upwardly accountable to the Director⁸ or Service⁹ and downwardly accountable to all residents in the area whether they are members of the Association or not. However, the Participatory Forest Management guidelines specify that actors will be accountable in more detail to Forest Community Association members than non-Association members (GoK, 2007, p. 31, GoK 2005, s.45.p.39). Likewise, Participatory Forest Management policies specify that members in Forest Community Association Committee be elected by only members

of the Forest Community Association (GoK, 2005, p.38, GoK, 2007, p.25). The Participatory Forest Management policies in Kenya also encourage participation of different stakeholders e.g. private sector, civil society and other non-state actors in all levels in forest sector planning implementation and decision making (GoK, 2014.p.16).

S29: In Uganda, Community Forest Management Committees in Collaborative Forest Management need to be downwardly accountable to the Forest User Group which they represent and upwardly accountable to the Responsible body¹⁰ (GoU, 2003.p.42). Nevertheless, Community Forest policies remain silent on to whom local institutions are required to be accountable. In addition, Community Forest and Collaborative Forest policies specify that members of the Community Forest Management Committee and Communal Land Association Management Committee are elected only by members of Forest User Groups and Communal Land Association respectively (GoU, 2003. p.34, 52 & 53, GoU, 2015.p.6). (Table 3). In addition, the Forest policy requires harmonisation of approaches and legislation relating to collaborative forest management between lead government agencies, and with NGOs/CBOs (GoU, 2001.PS.5.p.18).

S30: Ethiopia's Forest Proclamation is silent and PFM guidelines are unclear on to whom forest executive committees should be accountable. However, the guidelines state that the established community institution needs to be accountable, because it will be dealing with environmental, social and financial management issues which have individual and collective interest (FDRE, 2012. p.42). Participatory Forest Management policies lack clarity on who is responsible for electing members of forest executive committee. Participatory Forest Management policies in Ethiopia also allow participation of NGOs in supporting Participatory Forest Management (FDRE, 2007, s.4.3 and 4.4. p. 11. s.5.3.p.13, FDRE, 2012. p.4).

⁸ "Director" means the person appointed as director of Kenya Forest Service pursuant to section 10 of forest act (GoK, 2005.p.5).

⁹ "Service" means the Kenya Forest Service established under section 4 of forest act (GoK, 2005.p.8).

¹⁰ "Responsible body" means a body designated to manage, maintain and control a forest reserve or a community forest under the Forestry Act and in the case of private forest, the owner or person in charge of the forest (GoU, 2003.p.53).

APPENDIX 15: RESULTS SUMMARISED IN TABLE 3

Actors

S1: Policies for decentralised forest governance in Tanzania require local institutions¹³ at village level in Village Land Forest Reserves and Joint Forest Management to be either established as Village Natural Resource Committees (VNRC)¹⁴ or the existing committee of the Village Council¹⁵. Likewise, members of these committees are required to be elected by, and representative of, all groups and parts in the community¹⁶, with special consideration of marginalised groups. E.g. at least one third of the Village Natural Resource Committees members must be women, likewise people from different sub villages must be represented – especially those sub villages that are close to the forest area (URT 1998. PS 3.p.27, URT 2002, s.33.p.52, URT 2007, p.5 and 12, URT 2013, p.4). However, in Community Forest Reserves the policies allow Community Forest Reserves to be managed by Community Forest Management Group¹⁷, formed by any group of persons who are members of a village or who are living in or near to a forest, or any other groups of persons who are managing or desirous of managing a forest reserve (URT, 2002. s. 42 – 48. p.66, URT, 2007.p.7).

S2: In Malawi, Community Forest and Co-management policies define clearly that members of local institution must be elected and representative of the local forest organisation¹⁸ (GoM, 1997. s .25. p. 15 and s 31, p. 16, GoM, 2010. p.47, GoM 2015, p. 11). The function and terminology used for a local forest organisation is determined by the land and tree tenure arrangements and the rights to forest resources in their area of operation (GoM, 2010. p.47). For example, members of the local forest organisation in village forest areas that is designated to benefit the entire village community, are elected and representatives of all resident in a village. In other forest areas, members in local forest organisations represent groups responsible for managing the forest area. In the case of common access resources, found in village forest areas designated for the benefit of that entire village community, the local organisation is normally termed as the Village Natural Resource Management

¹³ “Local institutions” means actors at village levels elected by all resident at the community to guide the PFM approach.

¹⁴ “Village Natural Resource Committee” means a committee elected by the Village Assembly and approved by the Village Council to act as Manager of a VLFR (URT, 2013. p.5, and UTR, 2007. p. 7.)

¹⁵ “Village council” means the government of the village elected by the Village Assembly to govern all matters relating to the community, including its shared resources (URT, 2013. p.5 and URT, 2007. p. 7)

¹⁶ “Community” means all individuals who are resident in an area and not outsiders (Agrawal and Ribot, 1999). Precisely defining which individuals constitute the community is complex, however.

¹⁷ “Community Forest Management Group” means a group recognised by the Village Council and registered with the District Council that has the management authority for a Community Forest Reserve (URT, 2007. p. 7).

¹⁸ “Local forest organisations” are groups of individuals, households, families or communities who have come together with a common interest of managing trees, forests and forest resources (GoM, 2010. p.47)

Committee¹⁹ in Village forest area or block committee in Co-managed forest reserves (GoM, 2010. p.47).

S3: In Kenya, Participatory Forest Management policies state that the local institution in forest decentralization are Community Forest Associations Committee and members in the committee are elected to represent all groups within the Community Forest Association, but this association does not have to include all residents. Similarly, the composition of the Community Forest Association Committee is guided by the constitution of the association (GoK, 2005, p.3, GoK, 2007, p.25, GoK, 2014.p.16).

S4: In Uganda, forest decentralization policies state that local institutions in Collaborative Forest Management and Community Forest are the Communal Land Association Management Committee and Community Forest Management Committee respectively. Members in these committees are not representatives all residents but only members of the Communal Land Association and Forest User groups in Collaborative Forest Management and Community Forest respectively (GoU, 2003. p.34, 52 and 53, GoU, 2015.p.6).

S5: In Ethiopia, forest decentralization policies specify that the local institution in Participatory Forest Management is the Forest Executive Committee, elected from a Forest Cooperative made of elders, youth, women, and different interest groups in the community (FDRE, 2007.s.4.4.p.11, FDRE, 2007.s.3.p.7, FDRE, 2012.p.2, 41 and 47).

Empowerment

Management capacity

S6: In Tanzania Village Land Forest Reserves and Joint Forest Management policies require members in Village Natural Resource Committees to be trained on how to hold meetings, undertaking patrols in the forest and dealing with offenders, issuing licenses and permits, keeping good records of money received, and spent by using a simple income and expenditure book (URT, 1998.PS.3 and 5, URT, 2002.s.16.p. 17. S.33.p.35, URT 2007, p.21, URT 2013, p.26).

S7: Community Forest and Co management policies in Malawi require members in Village Natural Resource Management Committee and in Block committee respectively to be aware of tenure arrangements and usufruct rights issues prior to formal registration of Participatory Forest

¹⁹ "Village Natural Resource Management Committee" means a committee elected by stakeholders of the village forest area (GoM, 2010. p.47).

Management so as to minimise resource use and land conflicts later following registration (GoM, 1997.s.31.p. 14, GoM, 2010. p.49).

S8: In Kenya Participatory Forest Management policies require members in the Community Forest Association Committees to be trained in strategies for conflict resolution (GoK, 2014 p. 16, GoK, 2007. p. 31). In addition, the Participatory Forest Management guidelines require the committee members to receive exchange visits and study tours from other Participatory Forest Management areas so as to enhance their management capacity (GoK, 2007. p.31).

S9: In Uganda forest policy and Community Forest guidelines require members in Communal Land Association Management Committees to be trained in skills of conflict management, Community Forest processes and legal / policy frameworks, Community Worker Model, community forest management and extension, dynamics of society, incentives, record-keeping, practical tree nursery and establishment (GoU, 2001. PS.5. p.18, GoU, 2015. p. 18). Likewise, in Uganda the policies require members in Community Forest Management Committee to be trained on legal basis for Collaborative Forest Management, leadership, communication and group facilitation skills, negotiation skills, planning, forest management, record keeping, accountability and simple conflicts resolution method (GoU, 2001. PS.5. p.18, GoU, 2003. p.35).

S10: In Ethiopia Participatory Forest Management policies require members in Forest Executive Committees to be trained on topics like forest development, forest protection, forest utilization, and marketing, conflict management, financial management, minutes and record keeping, developing and using monitoring formats (FDRE, 2007. s.5.p.11 and s.6.2.p.15; FDRE,2012. p.45, 48 and 49).

Decision making powers

S11: In Tanzania the Forest Act defines ownership rights to forest on public land and provide rights for local communities to own Village Land Forest Reserves in such a way that actors can make their own decision on their forests. (URT, 2002.s.33.p.35). In addition, the policy empowers both committee and ordinary members with decision making over utilization of revenue from the sale of forest products obtained from Village Land Forest Reserves. In this case both committee and ordinary members may choose to share a portion with the district in return for services rendered, the percentage to be shared with the district is set by the villagers and not the district (URT, 2007.p.4). Joint Forest Management and Community Forest Reserves policies require members in Village Natural Resource Committees and Community Forest Management Group to make decisions based on Joint Management Agreement in strict accordance with the Management Plan (URT, 2013, p.45. URT, 2007, p. 12).

S12: In Malawi, Community Forest and Co management policies require Village Natural Resource Committee and Block Management Committee respectively, to consult Director of Forestry to any required decision out of the agreement. Likewise, the Forest Act allow Village Natural Resource Committee to terminate management agreement subject to the performance of unfulfilled obligations under a forest management agreement to the right of third parties (GoM, 1997.s.31.p. 14). Community Forest guidelines require Village Natural Resource Committees to make decisions independently when developing the constitution. The Community Forest guidelines specify that the process of developing a constitution may be facilitated but not unduly guided by the forestry extension service (GoM, 2010. p. 49).

S13: participatory Forest Management policies in Kenya state that a Community Forest Associations Committee can make decisions on only activities specified in Management Agreement. Likewise, any activity within a forest area, which is not included in the management plan or agreement, shall only be undertaken with the consent of the Board (GoK, 2007. p.31, GoK, 2005. s.46.p.41). Likewise, Forest Act grants power for a Director to terminate a management agreement with Community Forest Associations or withdraw a particular user right but Community Forest Associations had no power to terminate management agreements, they need to request to the Director for termination (GoK, 2005. s.48. p. 41).

S14: In Uganda Community Forest and Collaborative Forest Management policies states that any decision required needs to be made through negotiations between agreement parties (GoU, 2001. PS.5. p.18, GoU, 2003. p.26, GoU, 2015. p.35).

S15: In Ethiopia Participatory Forest Management guidelines state that any decision required in Forest management which is outside the legally binding agreement needs to be agreed between government forestry service and the Forest Cooperative (FDRE, 2012. p.45).

Utilization rights

S16: Village Land Forest Reserves and Community Forest Reserve policies in Tanzania empower Village Natural Resource Committees and ordinary members Village Land Forest Reserves; Community Forest Management Group in Community Forest Reserve, with utilization rights. E.g. i). Waiving state royalties on forest produce, retaining 100% of revenue from sale of forest products ii). Levying and retaining fine, exemption from the reserved tree species list and confiscation of forest produce and equipment from illegal harvesting (URT, 2002.s.14.p 22; s. 34.p. 36 s. 65. p .68. s.78. p.74. s 97.p. 82, URT, 2007.p.4).

S17: Malawian Community Forest guidelines in particular specify that in Village Forest Areas, the VNRMC and the community have the right to retain 100% of the benefits and should share and use according to the constitution (GoM, 2010.p.78). However, the Forest Act and Co management guidelines require Block Management Committee and ordinary members to utilise only 70% of any funds obtained from the approach (GoM, 1997.s.33.p. 15, GoM, 2010.p.78). In addition, the Forest Act states that a resident of any village may collect forest produce from customary land other than village forest areas for domestic use (GoM, 1997.s. 50. p. 18).

S18: In Kenya the Forest Policy in particular states that the Government will develop an institutional framework and mechanisms for effective participation of stakeholders in forest management (GoK, 2014 p. 16). Furthermore, the Forest Act and guidelines specify that utilization rights of members of Community Forest Associations will be limited to those outlined on the forest management agreement (GoK, 2005.s. 46. p. 40, GoK, 2007. p. 31).

S19: In Uganda Community Forest policies, granted members of Communal Land Associations with rights to access all the benefits obtained from the programme. While in Collaborative Forest Management actors have limited utilization rights, all rights and benefits of the Forest User Groups must be determined during the negotiation of Collaborative Forest Management Agreement between the Responsible Body and elected negotiation team and not the forest management committee (GoU, 2003. p.33).

S20: In Ethiopia Participatory Forest Management guidelines require benefit and revenue sharing arrangements to be defined clearly and agreed between the Forest Cooperative and Government Forestry service during the negotiation process (FDRE, 2012. p. 37). The Participatory Forest Management guidelines and forest policy specify that in principle the benefit sharing arrangement should reflect the responsibility of each agreeing party. It must be clarified from the start that benefits are tied to the level of responsibility one undertakes (FDRE, 2007, s.5. p. 12, FDRE, 2012. p. 37).

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Council to make sure that the local Primary and District Magistrates have copies of the by-laws to use if any cases relating to the matter are brought before them. Likewise, the Village Council keeps one copy in its file and also posts one copy at the Office so that everyone in the village can see it (URT, 2007.p.20, URT, 2013.p.25). The guidelines also require Village Natural Resource Committees to ensure that every village member knows the forest rules and punishments, likewise Village Natural Resource Committees need to provide a list of the rules and punishments to Village Councils of neighbouring villages to inform their own people (URT, 2013.p. 26; URT, 2007. p. 21). In addition, the Joint Forest Management guidelines states that forester needs to assist Village Natural Resource Committees in Joint Forest Management to some cases of large scale illegal activities. (URT, 2013.p.26).

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Accountability

S26: Village Land Forest Reserves and Joint Forest Management policies in Tanzania state that Village Natural Resource Committees need to be upwardly accountable to district councils and downwardly accountable to village councils and to the village assembly (URT, 2007.p. 21, URT, 2002, s. 33.p.35 and URT, 2013.p.26). Moreover, the Village Land Forest Reserves and JFM guidelines specified that facilitators will need to assist Village Natural Resource Committees in keeping records and submitting them to district, village council and village assembly on a regular basis (URT, 2007.p. 21, URT, 2013.p.26). Village Land Forest Reserves and JFM policies in Tanzania state that members in Village Natural Resource Committees should be elected by all village members through the village general assembly, to represent the entire village community i.e. formed from the membership of the village assembly and with due regard to gender balance (URT, 2002, s.33.p.52, URT, 2007, p.5, URT, 2013, p.4). (Table 3). In addition, the Forest Policy also allow participation of different stakeholders in forest management e.g. executive agencies and private sector (URT, 1998.PS 6.p.31).

S27: Malawian Community Forest and Co management policies in particular specify clearly that members in Village Natural Resources Management Committees and Block Committees respectively will be held accountable to their memberships, the local forest resource rights-holders or the community it represents according to tree and land tenure, but also to the Director of Forestry for the proper management of forest resources within its jurisdiction (GoM, 2010. p.48). Moreover, the Community Forest and Co management guidelines state that it is critical that the members in Village Natural Resource Management Committees or Block Committees be held accountable to the wider community or the rights holders on a regular basis reporting forest management progress. In addition, elections of members in the Village Natural Resources Management Committees or Block Committee will be held at least twice a year (GoM, 2010.p.49). (Table 3). Likewise, the Community Forest policies define clearly that members in Village Natural Resource Management Committees must be elected by all members of local forest organisation (GoM, 2010. p.47).

S28: Participatory Forest Management policies in Kenya require Forest Community Association Committees to be upwardly accountable to the Director²⁰ or Service²¹ and downwardly accountable to all residents in the area whether they are members of the Association or not. However, the Participatory Forest Management guidelines specify that actors will be accountable in more detail to Forest Community Association members than non-Association members (GoK, 2007, p. 31, GoK 2005, s.45.p 39). Likewise, Participatory Forest Management policies specify that members in Forest Community Association Committee be elected by only members of the Forest Community Association (GoK, 2005, p.38, GoK, 2007, p.25). The Participatory Forest Management policies in Kenya also encourage participation of different stakeholders e.g. private sector, civil society and other non-state actors in all levels in forest sector planning implementation and decision making (GoK, 2014.p.16).

S29: In Uganda, Community Forest Management Committees in Collaborative Forest Management need to be downwardly accountable to the Forest User Group which they represent and upwardly accountable to the Responsible body²² (GoU, 2003.p. 42). Nevertheless, Community Forest policies remain silent on to whom local institutions are required to be accountable. In addition, Community Forest and Collaborative Forest policies specify that members of the Community Forest Management Committee and Communal Land Association Management Committee are elected only by members of Forest User Groups and Communal Land Association respectively (GoU, 2003. p.34, 52 &53, GoU, 2015.p.6). (Table 3). In addition, the Forest policy requires harmonisation of approaches and legislation relating to collaborative forest management between lead government agencies, and with NGOs/CBOs (GoU, 2001.PS.5.p.18).

S30: Ethiopia's Forest Proclamation is silent and PFM guidelines are unclear on to whom forest executive committees should be accountable. However, the guidelines state that the established community institution needs to be accountable, because it will be dealing with environmental, social and financial management issues which have individual and collective interest (FDRE, 2012. p.42). Participatory Forest Management policies lack clarity on who is responsible for electing members of forest executive committee. Participatory Forest Management policies in Ethiopia also allow participation of NGOs in supporting Participatory Forest Management (FDRE, 2007, s.4.3 and 4.4. p. 11. s.5.3.p.13, FDRE, 2012. p.4).

²⁰ "Director" means the person appointed as director of Kenya Forest Service pursuant to section 10 of forest act (GoK, 2005.p.5)

²¹ "Service" means the Kenya Forest Service established under section 4 of forest act (GoK, 2005.p.8)

²² "Responsible body "means a body designated to manage, maintain and control a forest reserve or a community forest under the Forestry Act and in the case of private forest, the owner or person in charge of the forest (GoU, 2003.p.53).

APPENDIX 16: STRATIFICATION OF VILLAGES IN SULEDO VLFR

Ward	Village	Urbanity indicators														
		Petrol station	Car road	Health facilities (centre or dispensary)	wholesale shops	Primary schools	Secondary school	water services	markets	Good houses	Restaurant	Solar generator	TANESCO	football ground	Total score	
Sunya	Sunya	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12
	Mesera	0	1	0	0	1	0	0	0	0	0	1	0	0	1	4
	Olgira	0	1	0	0	1	1	1	0	1	0	1	0	0	1	7
	Asamatwa	0	1	1	0	1	0	0	0	1	1	1	0	0	1	7
	Loletepesi	0	1	1	0	1	0	0	1	1	0	1	0	0	1	7
	Chan'gomb e	0	1	0	0	1	0	0	0	1	0	1	0	0	1	5
Lengatai	Lengatei	0	1	1	1	1	0	0	1	1	1	1	0	1	1	10
	Lesoti	0	1	1	0	1	1	1	0	1	1	1	0	0	1	9
	Olkitikiti	0	1	1	0	1	0	1	0	1	1	1	0	0	1	8
	Engang'ung are	0	1	1	0	1	0	0	0	1	0	1	0	0	1	6
	Zambia	1	1	0	1	1	0	1	1	1	1	1	0	1	1	11
Dongo	Laiseri	0	1	1	0	1	1	1	1	1	1	1	0	0	1	10
	Ndotoi	0	1	0	0	1	0	0	0	1	0	1	0	0	1	5

APPENDIX 17: URBANITY INDICATORS OF SUB VILLAGES IN SUNYA VILLAGE

Name of Sub village	Urbanity indicators							Total
	Many houses	Closer to Health facilities (centre or dispensary)	Education facilities (e.g Primary school)	Transportation facilities (main or car road)	Wholesale shops	Guest houses	Large farmers	Score
Lendoru	0	0	0	0	0	0	1	1
Ibutu	1	0	0	1	0	0	1	3
Kiegea	0	0	1	1	0	0	1	3
Kichangani	0	0	0	1	0	0	1	2
Mnadani	1	1	1	1	1	1	1	7
Mji mpya	1	1	1	1	0	0	1	5
Majengo	1	1	1	1	0	0	1	5
Juhudi	1	1	0	1	0	0	1	4

APPENDIX 18: URBANITY INDICATORS OF SUB VILLAGES IN ENGANG'UNGARE VILLAGE

Urbanity Indicators								
Name of sub village	Education facilities (e.g Primary school)	Health facilities (centre or dispensary)	Water dam	Water well	Main or car road	Cattle dip	Local airport	Total score
Mturu	1	1	1	1	1	0	0	5
Nedepe	0	0	0	1	0	1	0	2
Loongung	0	0	0	0	0	0	0	0
Kiwanja Ndege	0	0	0	0	0	0	1	1

Questionnaire Survey

Name of village

Name of Sub village

Name of district

Name of Region

Name of Enumerator

Consent given

☐ Yes

☐ No

Respondent

☐ Oral consent

☐ Written consent

Participant info sheet read to the respondent

☐ Yes

☐ No

Adult ID

BASIC DEMOGRAPHIC INFORMATION

3. What is your position in the household?

- ☐ Head
- ☐ 1st wife
- ☐ Adult son
- ☐ Adult daughter
- ☐ Others specify

Please specify your position in the household

2. Sex of respondent

- ☐ Male
- ☐ Female

3. Age of respondent

4. Marital status of respondent

- ☐ Married
- ☐ Widow
- ☐ Divorced
- ☐ Separated
- ☐ Never married

5. What numbers of years did you spent at school?

- ☐ none
- ☐ 4years
- ☐ 7 years
- ☐ 8 years
- ☐ 13 years
- ☐ 15 years
- ☐ 16 years
- ☐ Others specify

6. Please specify other years that you spent in school

SOCIAL CAPITAL, POSITION IN COMMUNITY

7. To which ethnic group do you belong?

7a Were you born in this village?

☐ Yes

☐ No

7b If no, where were you born? (record Village, Ward, District)

7c If not born in village, when did you start to live in this village?..... (Please record the year even if approximate)

8a. Are you or any of your family a member of any group or association? Family (Father, mother, brother, sister, your children, wife, husband)

☐ Yes

☐ No

8b If yes what is your relationship with that members?

8b Which Organization?

8b what role(s) do they hold in the Association(s)/ group (s)?

9a. Do you or anyone in your household have a specific role in the community?

☐ Yes

☐ No

9b. If yes what is your relationship with that member?

9b. What role(s) do they hold.

10. Do you own the house you live in?

☐ Yes

☐ No

11. What is the roof materials for your house? (Just observe don't ask the respondent)

- ☐ Iron sheets
- ☐ Well-maintained thatched grass
- ☐ Dilapidated thatched grass
- ☐ Wicker & mud
- ☐ Others specify

10. Please specify other roof materials

12. What is the wall materials for your house? (Just observe don't ask the respondent)

- ☐ Burnt bricks with plaster
- ☐ Burnt bricks without plaster
- ☐ Mud bricks with plaster
- ☐ Mud bricks without plaster,
- ☐ Well-constructed poles and mud
- ☐ poor-constructed poles and mud
- ☐ Others specify

Please specify other wall materials

13. What is the primary fuel source your household uses for cooking?

- ☐ Electricity,
- ☐ Kerosene
- ☐ Biogas
- ☐ Charcoal
- ☐ firewood
- ☐ others specify

13. Please specify other primary fuel source your household uses for cooking?

14.What is the primary fuel source your household uses for lighting?

- ☐ Kerosene
- ☐ Electricity
- ☐ Candle
- ☐ Battery torch
- ☐ Solar torch
- ☐ Others specify

14. Please specify other primary fuel source your household uses for lighting?

15. What are your major sources of household income?

- ☐ Farming
- ☐ Livestock keeping
- ☐ Fishing
- ☐ Charcoal making
- ☐ Others specify

15.Please specify other major sources of household income?

16a.Do you own land ?

- ☐ Yes
- ☐ No

16b. If yes how many acres of land do you own including where you are living?

16c How many acres are for cropping

17. Which of these assets do you own?

- ☐ Motor cycle
- ☐ Bicycle
- ☐ Car
- ☐ Milling machine
- ☐ Tractor
- ☐ Ox cart
- ☐ Ploughs
- ☐ Others specify

17. Please specify other assets you owned

No of Motor cycle

No of Bicycle

No of car

No of milling machine

No of tractor

No of ox cart

No of plough

No of others

18a. Do you own animals or poultry?

- ☐ Yes
- ☐ No

18b.If yes in on above what categories of animals or poultry do you own?

- ☐ Cattle
- ☐ Sheep
- ☐ Goat
- ☐ Chicken
- ☐ Duck
- ☐ Horse
- ☐ Others specify

18b. No of cattle

18b. No of sheep

18b. No of horse

18b. No of Goat

18b. No of Chicken

18b. No of Duck

18b. Other livestock please specify

18b. No of other livestock

Where do you graze your livestock? (prompt all options and tick all that apply)

- ☐ Communal grazing lands
- ☐ Fallow lands
- ☐ Harvested field
- ☐ Established pastures
- ☐ Privately owned pastures
- ☐ Open access forest
- ☐ SULEDO Village Land Forest

COMMUNITY BASED FOREST MANAGEMENT**22. How long does it take to walk from your house to the nearest part of the SULEDO forest? (hours and minutes, also note if living in the forest)**

hh:mm

ELECTION AND COMPOSITION OF VEC**21. Who manages the SULEDO forest? (Tick all that apply and prompt "anyone else?")**

- ☐ Village Environmental Committee
- ☐ Zonal Environmental Committee
- ☐ Village govt
- ☐ Don't know.
- ☐ Others specify

21. Please specify others

22a. Are you a member of the Village Environmental Committee?

- ☐ Yes
- ☐ No

22b. If yes, are you a member of the Zone Environmental Committee? (For VEC members only)

- ☐ Yes
- ☐ No

22c. If yes, are you a member of the Zone Executive Committee?

- ☐ Yes
- ☐ No

23a. How did you become a member of Village Environmental Committee? [For VEC members only]

- ☐ Appointed by Village Government leaders
- ☐ Appointed by village councils
- ☐ Appointed by District Forest Officer
- ☐ Elected by villagers through village assembly
- ☐ Elected by villagers through sub village assembly
- ☐ Others specify

23b. Please specify others

24a. How do VEC members assume their position? [For ordinary members]

- ☐ Elected through village assembly
- ☐ Appointed by village government
- ☐ Nominated by village members, confirmed by village government
- ☐ Others, please specify
- ☐ Don't know

24a. Other way specify on which VEC members assume their position? [For ordinary members]

24b.If elected when was the last election? (exactly year, Month)

25a. Did you vote for VEC members in the last election?

- ☐ Yes
- ☐ No

25b.If no why?

- ☐ Never had the opportunity
- ☐ Chose not to
- ☐ Others specify

25b. Other reasons for not involved in voting

26. For how long are committee members supposed to be in their position?

27a. Can you remember how many elections there have been for VEC since the introduction of CBFM?

- ☐ Yes
☐ No
☐ Don't know

27b. If yes mention number of election conducted

28a. Do you know how many individuals are in the current Village Environmental Committee?

- ☐ Yes
☐ No

28a. If yes how many

28b. How many women are in the Village environmental committee?

28c. Please mention names of women who are members of VEC

28d. How many male are in VEC?

28e. Please mention names of men who are members of Village Environmental Committee

29. How do ZEC members assume their position? [For ordinary members]

- ☐ Elected through village assembly
☐ Appointed by village government
☐ Nominated by village members, confirmed by village government
☐ Identified by the management plans that VEC chairperson, secretary and treasurer of each village in SULEDO form ZEC
☐ Others please specify

Please specify other ways on which ZEC assume their position

30a. Do you know who is a member of ZEC from your village?

- ☐ Yes
☐ No

30b If yes can you mention their names

ACCOUNTABILITY OF THE VEC

31. To whom are the VEC accountable?

- ☐ Village Government
☐ All village members through Village assembly
☐ District councils
☐ District Forest Officer
☐ Central Government
☐ Others specify

32. Please specify where VEC are accountable

32. How are they accountable?

32a. How would you rate the accountability of the VEC to the village members?

- ☐ Very poor
☐ Poor
☐ Mediocre
☐ Good
☐ Very good

32b. Explain your answer

33a. Do you see members of the VEC as legitimate representatives of the village members?

- ☐ Very poor
☐ Poor
☐ Mediocre
☐ Good
☐ Very good

32b.Explain your answer

33a.Do you see members of the VEC as legitimate representatives of the village members?

- ☐ Very poor
- ☐ Poor
- ☐ Mediocre
- ☐ Good
- ☐ Very good

33b.Explain your answer

34a. [specific question for ordinary residents] How do you rate your trust in members of the VEC to look after forest resources in SULEDO?

- ☐ Very low
- ☐ Low
- ☐ Medium
- ☐ High
- ☐ Very high

34b. Explain your answer

Participation in SULEDO training

35a. Have you participated in any training related to SULEDO?

- ☐ Yes
- ☐ No

35b. If no explain why you haven't participated?

- ☐ Never had the opportunity
- ☐ Chose not to
- ☐ Others, please specify

35b. Other reasons please specify

36a.Have you had any training about beekeeping since SULEDO started?

- ☐ Yes
- ☐ No

36b.If yes, how many days did you spend for training?

36c. If no explain why you haven't participated?

- ☐ Never had the opportunity
- ☐ Chose not to
- ☐ Others specify

36e. Please specify other reasons

Decision-making in SULEDO

37a.Do any decisions about the SULEDO forest require an assembly of all the village members?

- ☐ Yes
- ☐ No

37b. If yes which decisions require a village assembly? [prompt for each of the following] [select multiple answers]

- ☐ How to manage SULEDO
- ☐ Harvesting of timber from SULEDO
- ☐ How to distribute revenue obtained from SULEDO VLFR
- ☐ Approval of forest by laws
- ☐ Others specify

Please specify other decisions

38a.Have you participated in any village assembly meeting about SULEDO VLFR?

- ☐ Yes
- ☐ No

38b.If yes How many assemblies have you attended?

38c. If yes what were the assemblies about?

36d.If yes when was the last assembly you attended? (Record year)

38e.If no why did you not participate in any meetings?

- ☐ Never had the opportunity
- ☐ Chose not to
- ☐ Others specify

38e. Other reasons please specify

39. Do you feel you have the opportunity to participate in decision making about the SULEDO forest?

- ☐ Yes
- ☐ No

40. Do you feel you have the knowledge and skills to participate in decision making about the SULEDO VLFR?

- ☐ Yes
- ☐ No

41a.Do you think PFM has increased the ability of village members to participate in management of the village forest? (i.e SULEDO)

- ☐ Yes
- ☐ No

41b.Please explain your answer

42. How would you rate the decision-making about the SULEDO VLFR?

- ☐ Very poor
- ☐ Poor
- ☐ Mediocre
- ☐ Good
- ☐ Very good

42b.Please explain your answer

BENEFITS OF SULEDO VLFR**43a.Have you benefited from SULEDO VLFR**

- ☐ Yes
- ☐ No

43b.If yes what are the benefits you get from the programme?

- ☐ Building materials
- ☐ Pasture for livestock
- ☐ Good weather
- ☐ Timbers
- ☐ Firewood
- ☐ Charcoal
- ☐ Cash
- ☐ Employment
- ☐ Others specify

43b.Please specify other benefits

43c. If you have not benefited explain why

- ☐ All the benefits are taken by ZEC for operation costs,
- ☐ ZEC is not managing the SULEDO VLFR according to management plans
- ☐ All the revenue obtained from SULEDO VLFR spent on loan repayment given by donor
- ☐ Others specify

Please specify other reasons

44a.Please rate your satisfaction with the mechanism of sharing benefits from SULEDO VLFR?

- ☐ Very unsatisfied
- ☐ Unsatisfied
- ☐ Neither satisfied nor unsatisfied
- ☐ Satisfied
- ☐ Very satisfied

44b.Please explain your answer

45a. Do you know how much revenue has been collected from SULEDO VLFR?

- ☐ Yes
- ☐ No

45b. If yes how much revenue has been collected so far from SULEDO VLFR?

46. How has the revenue been used? (Select multiple)

- ☐ Spent on village development projects
- ☐ Spent on paying loan
- ☐ Spent on operation cost for ZEC office
- ☐ I don't know
- ☐ Others specify

46b. Please specify others

47a. Who do you think has benefited from SULEDO?

- ☐ Zonal Environmental Committee
- ☐ Village Environmental Committee
- ☐ Village government
- ☐ All villagers
- ☐ Donor
- ☐ Districts councils
- ☐ Central government
- ☐ Do not know

47b. Explain your answer

48a. Had anybody come to check the accounts of SULEDO VLFR?

- ☐ Yes
- ☐ No
- ☐ I don't know

48b. If yes how many audit have been conducted since SULEDO started?.....

FOREST USE AND RULES**49a. Do you use the SULEDO Village Land Forest Reserve?**

- ☐ Yes
- ☐ No

49b. If yes, which resources do you use?

- ☐ Pasture for livestock
- ☐ Firewood
- ☐ Building materials (e.g. poles and withies).
- ☐ Timber
- ☐ Medicinal plants
- ☐ Please specify others

49b. Please specify other uses

49c.If not, why not?

- ☐ Forest by laws do not allow
- ☐ SULEDO is far from my household.
- ☐ Can access the forests products from general land
- ☐ Not aware whether I'm allowed to use forest resources from SULEDO
- ☐ Others specify

49c. Please specify other reasons

50a.Is use of SULEDO regulated by any rules?

- ☐ Yes
- ☐ No
- ☐ Don't know

50b.If yes please explain the forest rules that you're aware of?

51a.Do you know any punishment for defaulters of forest rules?

- ☐ Yes
- ☐ No

51b.If yes, what kind(s) of punishment do you know?

52. Has anyone in the village been punished for breaking forest rules?

- ☐ Yes
- ☐ No
- ☐ Don't know

53a. How are the rules regulating forest use formulated?

53b. and by whom?

- ☐ Donor
- ☐ ZEC members
- ☐ Village Environmental Committee
- ☐ Village government
- ☐ District councils
- ☐ Central government
- ☐ All villagers

54a. Did/do you participate in formulating the forest by laws and regulations for SULEDO?

- ☐ Yes
- ☐ No

54b. If yes how did you participate? (if possible select multiple)

- ☐ Provided with fact sheet on the proposed forest rules;
- ☐ Consulted for opinions about the forest rules
- ☐ Involved throughout the process of the rules formulation and my aspirations were consistently understood and considered
- ☐ Involved in all aspects of decision of the formulation of forest rules
- ☐ Involved in final decision making of the forest rules formulation

54c. If no why you did not participate?

- ☐ Never had the opportunity
- ☐ Chose not to
- ☐ Others specify

54c. Please specify other reasons

55a. Once the rules were formulated, did they have to be approved by anyone?

- ☐ Yes
- ☐ No
- ☐ Don't know

55b. If yes, who approve them?

- ☐ All villagers through village assembly
- ☐ District council,
- ☐ Zonal Environmental Committee
- ☐ Village Environmental Committee
- ☐ Village government
- ☐ Director of Forest and Beekeeping Division
- ☐ Other specify

55b. Please specify other

56a. Did you participate in the first approval of the forest by laws in SULEDO?

- ☐ Yes
- ☐ No

56b. If no why you did not participate?

- ☐ Never had the opportunity
- ☐ Chose not to
- ☐ Other specify

OVERALL SUCCESS**57a. Do you know what were the objective of establishing SULEDO?**

- ☐ Yes
- ☐ No

57b. If yes what were the objectives of establishing SULEDO? (Select multiple)

- ☐ Conserving the forest
- ☐ Benefiting all village members
- ☐ Don't know
- ☐ Other specify

57b. Please specify other

57c. In your opinion, have these objectives been achieved?

- ☐ Yes
- ☐ No

57d. If no explain why?

- ☐ No benefit to village members
- ☐ Existence of illegal activities in SULEDO VLFR
- ☐ No participation of all villagers in management of SULEDO VLFR
- ☐ Others specify

58a. Has your commitment to SULEDO

- ☐ Increased
- ☐ No changes
- ☐ Decreased since the start of SULEDO VLFR?

58b. Please explain your answer.

59a. Are you willing to continue participating in SULEDO?

- ☐ Yes
- ☐ No

59b. Please explain your answer.

60a. How would you rate the success of SULEDO VLFR?

- ☐ Very poor
- ☐ Poor
- ☐ Mediocre
- ☐ Good
- ☐ Very good

61b. Please explain your answer

62. Do you have any suggestions for how CBFM policy or the local institution (SULEDO) could be improved?

Swahili_Questionnaire_Survey

Muda wa kuanza mahojiano

hh:mm

Jina la Kijiji

Jina la Kitongoji

Jina la Wilaya

Jina la mkoa

Jina la mdodosaji

Tarehe ya udodoswaji

yyyy-mm-dd

Ukubali umetolewa

☐ Ndio

☐ Hapana

Mdodoswaji ridhaa imetolewa kwa

☐ Mdomo

☐ maandishi

Maelezo ya ushiriki yamesomwa kwa mdodoswaji.

☐ Ndio

☐ Hapana

Tarifa za mdodoswaji

Namba ya utambulisho (Tafadhali hakikisha namba inaendana na ya kwenye notebook)

TARIFA ZA MSINGI

1.Nafasi yako ni ipi katika kaya?

- ☐ Baba
- ☐ Mke wa kwanza
- ☐ Mtoto mkubwa wa kiume
- ☐ Mtoto mkubwa wa kike
- ☐ Wazazi
- ☐ Mengineyo ainisha

2.Nafasi uliyo nayo katika familia ambayo haikutajwa hapo juu

2. Jinsia ya mdodoswaji

- ☐ Mwanaume
- ☐ Mwanamke

3. Umri wa mdodoswaji..... (Kumbuka mdodoswaji anatakiwa awe na umri wa miaka 18 au zaidi)

4.Hali ya ndoa ya mdodoswaji

- ☐ Nimeolewa
- ☐ Nimeoa
- ☐ Mjane
- ☐ Nimepewa talaka
- ☐ Tumetengana
- ☐ Sijawahi kuolewa/sijawahi kuoa

5. Ulitumia miaka mingapi kusoma shule?

- ☐ Sijawahi kwenda shule
- ☐ Miaka 4
- ☐ Miaka 7
- ☐ Miaka 8
- ☐ Miaka 11
- ☐ Miaka13
- ☐ Miaka15
- ☐ Miaka 16
- ☐ Mengineyo ainisha

5. Ainisha miaka

MTAJI WA KIJAMII NA WADHIFA KWENYE JAMII

6. Wewe ni kabila gani?

7a. Ulizaliwa katika kijiji hiki?

☐ Ndio☐ Hapana

7b. Kama sio , je ulizaliwa wapi (Jaza kijiji, kata, wilaya)

7c. Kama hukuzaliwa katika kijiji hiki, Je ni lini ulianza kuishi katika kijiji hiki? (tafadhali jaza mwaka hata kwa kukadiria)

8a. Je, wewe au mtu yeyote katika kaya yako ni mwanachama wa kikundi au chama chochote? (Familia ina maana ;Baba, Mama, Kaka, Dada and watoto wako, Mke, Mume)

☐ Ndio☐ Hapana

8b. Kama ndio, je una mahusiano gani na hao wanachama na ni nafasi gani waliyo nayo katika chama/kikundi? (Tafadhali jaza mahusiano, Chama/kikundi, kazi au wadhifa walizonazo katika kikundi/chama)

9a. Je wewe au mtu yeyote katika kaya yako ana kazi maalumu katika jamii?

☐ Ndio☐ Hapana

9b. Kama ndio je una mahusiano yapi na huyo mtu na ni nafasi/kazi ipi/zipi aliyonayo/ alizonazo katika jamii (Tafadhali jaza mahusiano na kazi aliyonayo katika jamii)

MALI & VIASHIRIA VYA UTAJIRI

10. Je unamiliki nyumba unayoishi?

☐ Ndio☐ Hapana

11. Je nyumba yako imezekwa kwa nini? (Tafadhali angalia paa la nyumba kubwa usimuulize mdodoswaji)

- ☐ Mabati
- ☐ Imeezekwa vizuri kwa majani
- ☐ Imeezekwa kwa majani yaliyochakaa
- ☐ Imeezekwa kwa fito na tope
- ☐ Ainisha nyingine

11. Ainisha aina nyingine ya paa kama haipo hapo juu

12. Ukuta wa nyumba yako umejengwa kwa kutumia nini? (Tafadhali angalia ukuta wa nyumba kubwa usimuulize mdodoswaji)

- ☐ Matofari ya kuchoma na plasta
- ☐ Matofari yasiyochomwa bila plasta
- ☐ Matofari ya tope na plasta
- ☐ Matofari ya tope bila plasta
- ☐ Imejengwa vizuri kwa fito na tope
- ☐ Imejengwa vibaya kwa fito na tope
- ☐ Ainisha nyingine
- ☐ Matofari ya kuchoma bila plasta

12. Ainisha aina nyingine ya ukuta

13. Katika kaya yako unapika chakula kwa kutumia nini?

- ☐ Umeme
- ☐ Mafuta ya taa
- ☐ Kinyesi cha wanyama
- ☐ Mkaa
- ☐ Kuni
- ☐ Ainisha nyingine

13. Ainisha chanzo kingine cha nishati unachotumia kupika chakula ambacho hakikutajwa hapo juu

14. Unatumia nini kwa ajili ya mwanga usiku?

- ☐ Mafuta ya taa
- ☐ Umeme
- ☐ Mshumaa
- ☐ Tochi ya betri
- ☐ Tochi ya solar
- ☐ Ainisha ingine

14. Ainisha nishati ingine unayotumia kwa mwanga ambayo haipo hapo juu

ARDHI NA MIFUGO

15.Ni kipi chanzo kikuu cha mapato katika kaya yako?

- ☐ Kilimo
- ☐ Ufugaji
- ☐ Uvuvi
- ☐ Uchomaji wa mkaa
- ☐ Ainisha nyingine

15. Ainisha chanzo kingine cha mapato ambacho hakijatanjwa**16a.Je unamiliki shamba?**

- ☐ Ndio
- ☐ Hapana

16b.Kama ndio ni ekali ngapi unamiliki ukijumlisha na sehemu unayoishi?**16c.Ekali ngapi ni kwa ajili ya kilimo?**

17.Kati ya hizi mali ni zipi unazozimiliki? (Tafadhali weka vema kwa kila rasilimali aliyo nayo)

- ☐ Pikipiki
- ☐ Basikeli
- ☐ Gari
- ☐ Machine ya kusaga
- ☐ Tractor
- ☐ Gari la ng'ombe
- ☐ Jembe la ng'ombe
- ☐ Ingingine ainisha

17.Ainisha rasimali nyingine/zingine na idadi/ulizonazo ambazo hazikutajwa hapo

17.Taja idadi ya pikipiki ulizonazo**17.Taja idadi za baskeli ulizonazo****17.Taja idadi ya gari ulizonazo**

17.Taja idadi za machine za kusaga ulizonazo

17.Taja idadi ya tractor ulizonazo

17.Taja idadi ya tractors

17.Taja idadi ya gari la ng'ombe ulizonazo

17.Taja idadi ya jembe la ng'ombe

18a. Je una mifugo yoyote unayoimiliki (Wanyama na Ndege)?

☐ Ndio

☐ Hapana

18b. Kama ndio ni aina gani ya mifugo (wanyama na ndege) unayomiliki?

☐ Ng'ombe

☐ Kondoo

☐ Punda

☐ mbuzi

☐ Kuku

☐ Bata

☐ Ingingine ainisha

18b. Idadi ya ng'ombe ulionao

18b. Idadi kondoo ulionao

18b. Idadi ya punda ulionao

18b. Idadi ya mbuzi ulio nao

18b. Idadi ya kuku ulionao

18b. Idadi ya bata ulionao

Ainisha idadi ya mifugo mingine unayomiliki

19. Kama unamiliki mifugo, je ni wapi mifugo yako inachungia? (Tafadhali weka vema kwa kija jibu linalofaa)

- ☐ Ardhi ya jamii ya malisho
- ☐ Nchi konde
- ☐ Mashamba yaliyovunwa
- ☐ Sehemu iliyotengwa kwa ajili ya malisho
- ☐ Sehemu ya malisho ya binafsi
- ☐ Maeneo ya wazi ya misitu
- ☐ Msitu wa jamii wa SULEDO

USIMAMIZI WA MSITU WA JAMII

20. Ni mda gani unakuchukua kutembea kutoka kaya yako hadi msitu wa jamii wa SULEDO? (Tafadhali jaza saa au dakika, kumbuka kama mdodoswaji anaishi ndani ya msitu)

UCHAGUZI NA MUUNDO WA KAMATI YA MAZINGIRA YA KIJJI

21. Ni nani anasimamia msitu wa jamii wa SULEDO? (weka vema kwa kija jibu linalofaa)

- ☐ Kamati ya mazingira ya kijiji
- ☐ Kamati ya mazingira ya kanda
- ☐ Serikari ya kijiji
- ☐ Sijui
- ☐ Ingingine ainisha

21. Ainisha mdau mwingine anae husika kusimamia msitu wa jamii wa SULEDO

22a. Je wewe ni mjumbe wa kamati ya mazingira ya Kijiji?

- ☐ Ndio
- ☐ Hapana

22b. Kama ndio, je wewe ni mjumbe wa kamati ya mazingira ya kanda?

- ☐ Ndio
- ☐ Hapana

22c. Kama ndio, Je wewe ni mjumbe wa kamati kuu tendaji ya kanda?

- ☐ Ndio
- ☐ Hapana

23a. Ilikuwa je ukawa mjumbe wa kamati ya mazingira ya kijiji? (Swali hili ni kwa ajili ya wajumbe wa kamati ya mazingira ya kijiji tu)

- ☐ Niliteuliwa na viongozi wa serikali ya kijiji
- ☐ Niliteuliwa na halmashauri ya kijiji
- ☐ Niliteuliwa na afisa misitu wa wilaya
- ☐ Nilichaguliwa na wanakijiji kupitia mkutano mkuu wa kijiji
- ☐ Nilichaguliwa na wanakijiji kupitia mkutano mkuu wa kitongoji
- ☐ Ainisha nyingine

23b. Ainisha kama kuna njia nyingine

24a. Ni kwa jinsi gani wajumbe wa kamati ya mazingira ya kijiji wanapata nafasi hizo? (Swali hili kwa ajili ya wasio wajumbe wa kamati ya mazingira tu)

- ☐ Walichaguliwa kupitia mkutano mkuu wa kijiji
- ☐ Waliteuliwa na serikari ya kijiji
- ☐ Walipendekezwa na wanavijiji, na kupitishwa na serikari ya kijiji
- ☐ Ainisha ingine
- ☐ Sijui

24a. Ainisha njia nyingine inayotumika kuwapata wajumbe wa kamati ya mazingira

24b. Kama walichaguliwa ni lini ilikuwa mara ya mwisho kufanya uchaguzi? (Jaza mwaka, mwezi)

25a. Je ulipiga kura ya kuchagua wajumbe wa kamati ya mazingira ya kijiji katika uchaguzi wa mwisho uliofanyika?

- ☐ Ndio
- ☐ Hapana

25b. Kama hapana kwanini ukushiriki katika uchaguzi huo?

- ☐ Sijawahi bahatika kupewa nafasi ya kushiriki
- ☐ Niliamua kutokushiriki
- ☐ Ingingine ainisha

25b. Ainisha sababu nyingine

26. Wajumbe wa kamati ya mazingira ya kijiji wanatakiwa kukaa katika nafasi zao kwa mda gani?

27a. Je unaweza kukumbuka ni chaguzi ngapi zimewahi fanyika za kuchagua wajumbe wa kamati ya mazingira ya kijiji tangu kuanzishwa kwa usimamizi wa misitu wa jamii wa SULEDO?

- ☐ Ndiyo
- ☐ Hapana
- ☐ Sijui

27b. Kama ndio taja idadi ya chaguzi zilizowahi kufanyika

28a. Je unafahamu kamati ya mazingira ya kijiji ya sasa ina wajumbe wangapi?

- ☐ Ndio
- ☐ Hapana

28a. Kama ndio taja idadi yao

28b. Je ni wanawake wangapi wapo katika kamati ya mazingira ya kijiji?

28c. Tafadhali taja majina ya wanawake ambao ni wajumbe wa kamati ya mazingira ya kijiji kwa sasa

28d. Je ni wanaume wangapi wapo katika kamati ya mazingira ya kijiji?

28e. Tafadhali taja majina ya wanaume ambao ni wajumbe wa kamati ya mazingira ya kijiji kwa sasa

29a. Ni kwa jinsi gani wajumbe wa kamati ya mazingira ya kanda wanapata nafasi hizo? (Swali hili kwa ajili ya wasio wajumbe wa kamati ya mazingira tu)

- ☐ Walichaguliwa kupitia mkutano mkuu wa kijiji
- ☐ Waliteuliwa na serikari ya kijiji
- ☐ Walipendekezwa na wanavijiji, na kupitishwa na serikari ya kijiji
- ☐ meainishwa kwenye mpango kazi kuwa mwenyekiti wa kamati ya mazingira ya Kijiji, katibu na mweka hazina wa kila kijiji cha SULEDO ndo wanaunda Kamati ya misitu ya Kanda
- ☐ Ainisha ingine

29b. Ainisha nyingine

30b. Je unajua nani ni mjumbe wa kamati ya misitu ya kanda kutoka kijijini kwako?

☐ Ndio

☐ Hapana

30b. Kama ndio tafadhali taja majina yao?

UWAJIBIKAJI WA KAMATI YA MAZINGIRA YA KIJIKI

31. Kamati ya mazingira ya kijiji inawajibika kwa nani?

☐ Wanakijiji wote

☐ Serikari ya Kijiji

☐ Halmashauri ya Wilaya kwa mkurugenzi

☐ Afisa misitu wa wilaya

☐ Ingingine ainisha

31. Ainisha ni kwa nani mwingine Kamati ya mazingira inawajibika?

31. Na kwa jinsi gani wanawajibika?

32a. Je unakionaje kiwango cha uwajibikaji cha kamati ya mazingira ya kijiji? (Inapimwa na likert scale 1 hadi 5, ambapo

☐ Hawawajibiki kabisa

☐ Hawawajibiki

☐ Wanawajibika kwa wastani

☐ Wanawajibika vizuri

☐ Wanawajibika vizuri sana

32b. Elezea jibu lako

33a. Je unawaonaje wajumbe wa kamati ya mazingira ya kijiji, wanawakilisha wanakijiji kama inavyotakiwa? (Itapimwa kwa likert scale 1 hadi 5, ambapo

☐ Hawawakilishi kabisa kama inavyo takiwa

☐ Hawawakilishi

☐ Wanawakilisha kwa wastani

☐ Wanawakilisha vizuri

☐ Wanawakilisha vizuri sana

33b.Elezea jibu lako.

34a [Swali hili ni kwa ajili ya wasio wajumbe wa kamati ya mazingira ya kijiji] Je ni kwa kiwango gani unawaamini wajumbe wa kamati ya mazingira ya kijiji katika kusimamia rasilimali za misitu zilizopo msitu wa jamii wa SULEDO? (Itapimwa kwa kutumia Likert scale 1 hadi 5, ambapo

- ☐ Nawaamini kidogo sana
- ☐ Nawaamini kidogo
- ☐ Nawaamini wastani
- ☐ Nawaamini kwa kiwango kikubwa
- ☐ Nawaamini sana

34b.Elezea jibu lako

USHIRIKI KATIKA MAFUNZO YANAYOHUSIANA NA MSITU WA JAMII WA SULEDO

35a.Je umewahi kushiriki katika mafunzo yoyote yanayohusiana na msitu wa jamii wa SULEDO?

- ☐ Ndio
- ☐ Hapana

35b.Kama hapana, eleza ni kwa nini hujawahi kushiriki?

- ☐ Sijawahi bahatika kupewa nafasi ya kushiriki
- ☐ Niliamua kutokushiriki
- ☐ Ingingine ainisha

35b. Ainisha sababu nyingine

36a.Je umewahi kupata mafunzo yoyote yanayo husiana na ufugaji wa nyuki tangu kuanzishwa kwa msitu wa jamii wa SULEDO?

- ☐ Ndiyo
- ☐ Hapana

36b.Kama ndiyo,Je ulitumia siku ngapi ulitumia katika mafunzo hayo?

36c.Kama hapana,eleza kwa nini hukushiliki katika mafunzo hayo?

- ☐ Sijawahi bahatika kupata nafasi ya kushiliki
- ☐ Niliamua kutokushiriki
- ☐ ingine ainisha

Ainisha sababu nyingine ya kutokushiriki

MAAMUZI YA MSITU WA JAMII WA SULEDO

37a. Je, maamuzi yoyote yafanyikayo kuhusu msitu wa jamii wa SULEDO yanahitaji kufwanya na mkutano mkuu wa kijiji?

- ☐ Ndiyo
- ☐ Hapana
- ☐ Sijui

37b. Kama ndio ni maamuzi yapi yanaitaji mkutano mkuu wa kijiji? [ulizia kwa kila ifuatayo] [Chagua jibu zaidi ya moja]

- ☐ Jinsi ya kutunza msitu wa jamii wa SULEDO
- ☐ Uvunaji wa mbao ndani ya msitu wa jamii wa SULEDO
- ☐ Jinsi ya kugawanya mapato yatakayo na msitu wa jamii wa SULEDO
- ☐ Kupitisha sheria ndogondogo za msitu wa jamii wa SULEDO
- ☐ Ingingine ainisha

37b. Ainisha maamuzi mengine

38a. Je umewahi kushiriki katika mkutano mkuu wa kijiji wowote uliohusu msitu wa jamii wa SULEDO?

- ☐ Ndiyo
- ☐ Hapana

38b. Kama ndio, ni mikutano mingapi umewahi kuhudhulia?

38c. Kama ndio mikutano hiyo uliyohudhuria ilikuwa inahusu nini?

38d. Kama ndio lini ilikuwa mkutano wako wa mwisho kuhudhuria? (jaza mwaka)

38e. Kama hapana ni kwanini hukushiriki katika mkutano wowote?

- ☐ sijawahi bahatika kupata nafasi ya kushiriki
- ☐ niliamua kutokushiriki
- ☐ ingine ainisha

38e. aininisha sababu nyingine ainisha

39. Je unahisi una nafasi ya kushiriki katika kufanya maamuzi yanayohusiana na msitu wa jamii wa SULEDO?

- ☐ Ndiyo
- ☐ Hapana
- ☐ Sijui

5. Unahisi una uelewa na ujuzi wa kutosha katika kushiriki kwenye maauzi ya yanayohusiana na msitu wa jamii wa SULEDO?

- ☐ Ndiyo
- ☐ Hapana
- ☐ Sijui

41a.Unafikiri usimamizi wa misitu kwa njia shirikishi umeongeza uwezo wako wa kushiriki katika usimamizi wa msitu wa kijiji (i.e SULEDO)?

- ☐ Ndiyo
- ☐ Hapana
- ☐ Sijui

41b.Tafadhali elezea jibu lako

42a.Maamuzi yanayofanyika kuhusu msitu wa jamii wa SULEDO yanafanyika katika kiwango kipi?

- ☐ Vibaya sana
- ☐ Vibaya
- ☐ Kawaida
- ☐ Vizuri
- ☐ Vizuri sana

42b.Tafadhali elezea jibu lako

FAIDA YA MISITU YA JAMII

43a. Je,umefaidika na msitu wa jamii wa SULEDO?

- ☐ Ndiyo
- ☐ Hapana
- ☐ Sijui

43b. Kama Ndiyo ni faida zipi unazipata kutoka msitu wa jamii wa SULEDO?

- ☐ Vifaa vya ujenzi
- ☐ Malisho kwajili ya mifugo
- ☐ Hali nzuri ya hewa
- ☐ Mbao
- ☐ Kuni
- ☐ mkaa
- ☐ pesa
- ☐ Ajira
- ☐ Miti shamba
- ☐ Ingingine ainisha

43b. Ainisha faida nyingine

43c. Kama haujafaidika elezea kwa nini?

- ☐ Faida zote zinachukuliwa na ZEC kwa ajili ya gharama za uendesaji
- ☐ ZEC aisimamii msitu wa jamii wa SULEDO kama mpango kazi unavyosema
- ☐ Mapato yote yanayopatika msitu wa jamii wa SULEDO yanatumika kulipa mkopo kwa wafadhili
- ☐ Mapato yote yanatumiwa na viongozi wa ZEC kwa manufaa yao binafsi
- ☐ Ainisha nyingine

Ainisha sababu nyingine ya kutokufaidika

44a. Je ni kwa kiwango gani unalizika na kiwango cha utaratibu wa ugawaji wa faida zinazotokana na msitu wa jamii wa SULEDO?

- ☐ Siliziki kabisa
- ☐ Sililiziki
- ☐ Kawaida
- ☐ Nalizika
- ☐ Nalizika sana

44b. Elezea jibu lako

45a Je unafahamu ni kiasi gani cha mapato kimeshakusanywa kutoka katika msitu wa jamii wa SULEDO?

- ☐ Ndiyo
- ☐ Hapana

45b.Ni kiasi gani cha mapato kimeshakusanywa kutoka katika msitu wa jamii wa SULEDO?

46a.Ni kwa jinsi gani mapato hayo yalitumika?

- ☐ Yalitumika katika miradi ya maendeleo ya kijijini
- ☐ Yalitumika kulipa mkopo
- ☐ Yalitumika katika gharama za kuendeshea ofisi ya Zonal Environmental Committee
- ☐ Ingingine ainisha
- ☐ Sijui

46b. Ainisha matumizi mengine

47a.Ni nani unafikiri amefaidika na msitu wa jamii wa SULEDO?

- ☐ Kamati ya misitu ya kanda ya msitu wa jamii wa SULEDO
- ☐ Kamati ya mazingira ya kijiji
- ☐ Wanakijiji wote
- ☐ Wafadhili
- ☐ Halmashauri ya Wilaya
- ☐ Serikali kuu
- ☐ Serikari ya kijiji
- ☐ Sijui

47b.Elezea jibu lako

48a.Kuna mtu yeyote amewahi kuja kufanya ukaguzi wa pesa zinazotokana na msitu wa jamii wa SULEDO?

- ☐ Ndiyo
- ☐ Hapana
- ☐ Sijui

48b.Kama Ndiyo ni mara ngapi ukaguzi wa mahesabu umefanyika toka msitu wa jamii wa SULEDO umeanzishwa?.

UTUMIAJI WA MSITU NA SHERIA

49a.Je unatumia msitu wa jamii wa SULEDO?

- ☐ Ndiyo
- ☐ Hapana

49b.Kama Ndiyo ni rasimali ipi unayotumia?

- ☐ Malisho ya mifugo
- ☐ Kuni
- ☐ Mijengo
- ☐ Mbao
- ☐ Miti shamba
- ☐ Ingingine ainisha

49b.Je ni rasilimali gani nyingine unayotumia kutoka msitu wa jamii wa SULEDO?**49c. Kama sio kwa nini utumii rasimali yoyote kutoka msitu wa jamii wa SULEDO?**

- ☐ Sheria ndogondogo za misitu haziniruhusu
- ☐ Msitu wa jamii wa SULEDO upo mbali na kwangu,
- ☐ Naweza pata mazao yam situ toka ardhi ya jumla
- ☐ Ainisha ingine

49c.Ainisha sababu nyingine**50a.Je utumiaji wa msitu wa jamii wa SULEDO unaendeshwa na sheria?**

- ☐ Ndiyo
- ☐ Hapana
- ☐ Sijui

50b.Kama Ndiyo tafadhali elezea sheria za misitu ambazo unazifahamu**51a.Je unajua adhabu inayotolewa kwa waharifu wa sharia za misitu?**

- ☐ Ndiyo
- ☐ Hapana

51b.Kama Ndiyo, ni aina gani ya adhabu unayoifahamu?**52.Je kuna mtu yeyote amewahi kuadhibiwa kwa kuvunja sheria za misitu?**

- ☐ Ndiyo
- ☐ Hapana
- ☐ Sijui

53a.Sheria zinazoongoza utumiaji wa msitu wa jamii wa SULEDO zinatungwaje?**53b.Na ni nani anahusika katika utungaji wa hizo sheria za msitu?**

- ☐ Wafadhili
- ☐ Kamati ya kanda ya mazingira ya msitu wajamii wa SULEDO
- ☐ Kamati ya kijiji ya mazingira ya msitu wa jamii wa SULEDO
- ☐ Serikari ya Kijiji
- ☐ Serikari kuu
- ☐ Wanakijiji wote
- ☐ Sijui

54a.Je ulishiriki/ unashiriki katika utungaji wa sharia ndogondogo za msitu na taratibu kwa ajili usimamizi wa msitu wa jamii wa SULEDO?

☐ Ndiyo

☐ Hapana

54b. Kama Ndiyo ni kwa namna gani ulishiriki

- ☐ Nilipewa karatasi yenye mapendekezo ya sharia ndogondogo za msitu
- ☐ Niliombwa kutoa maoni juu ya sharia ndogondogo za msitu
- ☐ Nilishirikishwa katika mchakato mzima wa utungaji wa sharia na matarajio yangu yalieleweka na yakakubaliwa.
- ☐ Nilishirikishwa katika kila hatua ya maamuzi yaliyotolewa katika utungaji wa sheria za msitu
- ☐ Nilishirikishwa katika maamuzi ya mwisho wakati wa utungaji wa sheria za msitu

54c.Kama hapana kwa nini hukushiriki?

- ☐ Sijawahi bahatika kupewa nafasi ya kushiriki
- ☐ Niliamua kutokushiriki
- ☐ Ingingine ainisha

Ainisha sababu nyingine kwa nini hukushiriki?**55a. Mara baada ya sheria za msitu wa jamii wa SULEDO kutungwa ,je zilitakiwa kupitishwa na mtu yeyote?**

- ☐ Ndiyo
- ☐ Hapana
- ☐ Sijui

55b.Kama Ndiyo nani anapaswa kuzipitisha?

- ☐ Wanakijiji wote kupitia mkutano mkuu wa kijiji
- ☐ Halmashauri ya Wilaya
- ☐ Kamati ya Kanda ya mazingira ya msitu wa jamii wa SULEDO
- ☐ Kamati ya mazingira ya kijiji
- ☐ Serikari ya Kijiji
- ☐ Mkurugenzi wa Idara ya Misitu na nyuki
- ☐ Ingingine ainisha
- ☐ Sijui

55b.Ainisha kama kuna mtu mwingine anaepitisha sheria**56a.Je umewahi kushiriki kupitisha kwa mara ya kwanza sheria ndogondogo za msitu wa Jamii wa SULEDO?**

- ☐ Ndiyo
- ☐ Hapana

56b.Kama hapana, kwa nini hukushiriki?

- ☐ Sijawahi bahatika kupewa nafasi ya kushiriki
- ☐ Niliamua kutokushiriki
- ☐ Ingingine ainisha

56b. Ainisha kama kuna sababu nyingine**MAFANIKIO YA MSITU WA JAMII WA SULEDO KWA UJUMLA****57a. Je unajua ni yapi yalikuwa malengo ya kuanzishwa kwa msitu wa jamii wa SULEDO?**

- ☐ Ndiyo
- ☐ Hapana

57b. Kama Ndiyo ni yapi yalikuwa malengo ya uanzishwaji wa msitu wa jamii wa SULEDO?

- ☐ Uhifadhi wa msitu
- ☐ Kunufaisha wanakijiji wote
- ☐ Sijui
- ☐ Ingingine ainisha

57b. Taja malengo mengine

57c. Kwa maoni yako, je malengo haya yamefanikiwa?

☐ Ndiyo

☐ Hapana

57d. Kama hapana elezea kwa nini?

☐ Haina faida yoyote kwa wanakijiji

☐ Bado kuna uwepo wa shughuli za uharibifu wa misitu ndani yam situ wa jamii wa SULEDO

☐ Hakuna ushirikishwaji wa wanakijij wote katika usimamizi wa msitu wa jamii wa SULEDO

☐ Ingingine aininsha

57d. Ainisha sababu nyingine

58a. Je shauku/ moyo wako wa kujitoa kushiriki katika kusimamia msitu wa jamii wa SULEDO una hali gani tangu kuanzishwa kwa msitu huu wa jamii wa SULEDO?

☐ Umeongezeka

☐ Hakuna mabadiliko

☐ Umepungua

58b. Tafadhali elezea jibu lako

59. Je bado uko tayari kuendelea kushiriki katika usimamizi wa msitu wa jamii wa SULEDO?

☐ Ndiyo

☐ Hapana

59. Elezea jibu lako

60a. Je mafanikio ya usimamizi wa msitu wa jamii wa SULEDO unaweza kuyaweka katika kiwango kipi? (Inapimwa kwa kutunika Likert scale 1 hadi 5, ambapo

☐ Vibaya sana

☐ Vibaya

☐ Kawaida

☐ Vizuri

☐ Vizuri sana

60b. Tafadhali elezea jibu lako

61. Je unamapendekezo yoyote, kuhusu ni kwa jinsi gani sera ya ushirikishwaji au kamati ya mazingira inaweza ikaboreshwa?

TAFADHALI ZIMA KINASA SAUTI

Umefika mwisho wa dodoso, asante kwa ushrikiano

Weka jina katika form hii



Jaza kama form imekamilika

APPENDIX 21: QUESTIONNAIRE SURVEY (MAASAI VERSION)

Esaa ne kinderunye engigwana

Hh:mm _____

Engarna engejiji: _____

Engarna engetongoji: _____

Engarna ewilaya : _____

Engarna emukoa: _____

Engarna omwalimwi: _____

O tarehe letata : _____

Irukto mayikilikwanihore engwana?

- ☐ Eeh airuko
- ☐ Mayeu

Mae tu ai kilikwana ilomon

- ☐ e ngutku
- ☐ e sirare

Awa engigwana elomon laata nanu o mwalimwi

- ☐ Eeh airuko
- ☐ Mayeu

Aewo aikilikwani

- ☐ Engarna engan
- ☐ Olomon lawaa

1a. Kanyoo iye engasino tengaino?

- ☐ Papa
- ☐ Engitok naitera ariku
- ☐ Engerai naikao olayeni
- ☐ Engerai naikao endito
- ☐ I ndoiwo
- ☐ Ilomoni kulye

1a. Kanyoo engasino neata tiatwa engera inono

2. Engitok nagirai ai kilikwani hore

☐ Olee

☐ Engitok

3. Elarin londung'an _____

4. Kaja etyu engiama londung'an _____

- Ayama
- Ayamihe
- Engolyayai
- Atung'wa yeki
- Kitapalate
- Etu aiyami/Nitu ayamiho

6. Kaja elarin litijeng'a tee shule

- Ituaikata alo shule
- Ilarin ong'wan (miaka 4)
- Ilarin napishana (miaka 7) ○
- Ilarin isheti (miaka nane)
- Ilarin tomon oobo (maika 11) ○
- Ilarin tomon ookuni (miaka 13) ○
- Ilarin tomon ooimyet (miaka 15) ○
- Ilari tomon ooilee (miaka 16) ○
- Ilomoni kulye

5. Toolimu ilarin_____

6. Kaabila enino? _____

KANYOO ENGASII NEASITAA TIATWA INDUNG'ANAK

7a. Kekito iwok tana kijiji?

- Eeh
- Mayeu

7b. Mee tene, atoiwoki? _____

7c. Etu aine tana kijiji, kanu indera amanya tana kijiji? _____

8a. Amaaye iramwanachama ongikundini aho enchama ngai? (Eeh kitii poken; papa,yeyo,wongera,wengitoku,womoruo)

- Eeh
- Mayeu

8b. Enjoo pee sepa eyaata mahusiano enjama (Enganya engasii neata tengikundi ahuu enchama)._____

9a. Amaaye iyata engasii neasita tiatwa endung'anak ? _____

- Eehh
- Mayeu

9b. Enjoo pesi paa eyata mahusiaono wolelo tung'anak lengasi? _____

E Mali & ingihuu o ndajiri

10. I miliki engaji nimanyita?

- Eeh
- Mayeu

11. Kanyoo indibirye engaji?

- Korubati
- Kitibiryek esidayi torukujita
- Kitibiryeki esidayi torukujita otumute
- Kitibiryeki ilomu woloipurdllomoni kulye

11. Tolimu ilomon kulye lemetii ine _____

12. Kanyoo etehetyeki engaj ino?

- Isoitok oo pejo neohi elip
- Isoitok leme pejo meata plasta
- Isoitok loloipord meata plasta ○
- Etehetaki esidayi too ilom
- Etehetaki endorono too loyi purd

12. Tolimu ilomon kulye esundaye _____ -

13. Kanyoo iyeerye endaa tengaj ino?

- Eumeme
- Keilata endaa
- Kemodyok olowarak
- Kenguk
- Kerikkeyk
- Ilomoni kulye

13. Tolim ilomon engaitok nilyerihore tendaa enitu elimun tene _____

14. Kanyoo ilang'i horere kiwarye?

- Keilata endaa
- Keumeme
- Kemshumaa
- Kesitimu
- osoitok ○ Kesitimu
- esola ○ Ilomo kulye

14. Tolimu engaytok nitumie embesai _____

Engurukon wongihu

15. Kanyoo itumyemye imbesai tengangino?

- Kendurore
- Kengihu ○
- Ke uvuvi

- Kenguk
- Ilomon kulye

15. Tolimu engaitok nituelimun

tene? _____-16a. Imiliki e ngulukoni?

- Eehh
- Mayeu

16b. Eeh aimiliki engulukoni wewi nimanyak? _____

16c. Engulukoni nabaya imiliki tok tendurore?

17. Amaa tekunak kanyoo imiliki tok?

- Kendukutuk
- Kebasikeli ○
- Ke garim
- Ke mashine naisagiho ○
- Ko nderegeta
- Ke garim longihu ○
- Korkembe longihu ○
- Ilomon kulye

17. Tolim endokt kulye niata tiang _____

17 Tolim endukutukni niata _____

17. kaja ibasikelini niata _____

17. Kaja ingarimi niata _____

17. Kaja imashine niata _____

17 Tolim inderegeta niata _____

17. Kaja ingihu niata _____

17.Kaja irkemben niata longihu _____

18a. eyata ingihu kulye ahuu ilowalak ahuu irmontonyk _____

- Eeh
- Mayeu

18b. Imilikitok ingihu, womotonyik wolowarak

- Ingihu
- Ingeraa
- Kosikilya
- Kendare
- Kengukunu
- Korbata

18b. Kaja Ingihu niata_____

18b. Kaja Ingeraa niata_____

18b. Kaja indare neata_____

18b. Kaja ingukunu niata_____

18b kaja irbatai niata_____

19. Kaja ingihu niramaita naai endare

- Ingulukoni wondung'anak weramatare
- Eng'op natung'wayek
- Inguruman natigilaki
- Ewi nadare ingihu ronjoo ○
- Ewi nadare engishu ayi ○ Ewi
- endim o msitu
- Endim orndung'anak e SULEDO

KANG'AI NAITAHEKITOK SULEDO

20. Kaa saa itumia tenipuku tiang alo endimu e SULEDO?

EGELARE ONKAMATIN ENGI JIJI E MAZINGIRA

21. Kang'ai naitahekito endimu e SULEDO

- Enkamati e mazingira engijiji
- Enkamati e mazingira enkanda ○
- Eserikali engijiji
- Mayolo
- Ilomon kulye

21. Tolimu ondung'ani oitahekito endimu ondung'anak le SULEDO?

22a. Ira injumbei enkamati engijiji?

- Eeh
- Mayeu

22b. Ira iye ejumbei enkamati e mazingira enkanda?

- Eeh
- Mayeu

22c. Ira iye enjumbei enkamati ntendaji

- Eeh
- Mayeu

23. Kai ingununo pee eta emjumbe enkamati e mazingira engijiji?

- Ategelwaki e viongozi le serikali engijiji
- Ategelwaki e halmashauri engijiji

- Ategelwa orktok bwana misitu le wilaya
 - Ategelwaki erong'anak le mkutano mkuu lengijiji ○
- Ategelwaki tengitongoji to mkutano lengitongoji

24a. Kai kununo pee tumu enjumbei enafasi engijiji

- Etegelwaki temuktano mkuu engijiji
 - Iteuwaki I serikali engijiji
 - Etegelwaki engarr nimyeke e serikali engijiji ○
- Ilomon kulye
- Mayolo

24a. tolimu engo itoyi ngayi nitumye ijumben enkamati

24b. Amaa pee ge luni kanu mwisho egelare

25a. itoho kura pee ge luni enjumbe enkamati e mazingira engijiji

- Eeh
- Mayeu

25b. Kanyoo pee itulo egelare e mazingira

- Itualo egelare enkamati ya mazingira
- Atabaraka itu alo
- Ilomon kulye

25b. Tolimu ilomon kulye

26. Kamaa enjumben enkamati ketoni elarin aja _____

27. Kanyoo idamu tegelare naima pee ge luni enjumbe enkamati emazingira _____

- Eeh
- Mayeu
- Mayolo

28a. Iloyo enkamati emazingira enkijiji ajo kaja enjumben?

- Eeh
- Mayeu

28b. Enjoo pee sipa tolimu esiana

28c. Kaja ingituwak natii enkamati emazingira enkijiji

28d. Tolimu engarr ongituak natee enkamati emazingira engijiji tata

28e. Kaja ilewa otii enkamati emazingira engijiji

28f. Tolimu engarr oolewa otii enkamati emazingira engijiji

29. Kaja ikoni pee tumi enjumbe lemazingira enkanda

- Etegelwak tengigwanak emkutano mkuu lengijiji
- Etegelwak taserikali engijiji

- Imyeki engarr engijij wo mkutano mkuu lengijiji
- Etisiraki tee mpango kazi omwenyekiti le kamati ya mazingira engijiji workatibu o mweka hazina
- Tolimu ilomon kulye

30b Kang'ai iyolo ajo enjumbei enkamati ya mazingira naing'waa engijiji ino.

- Eeh
- Mayeu

30b. Injoo pee esipa tolimu engarr_____

KANYOO ENGASII ENKAMATI EMAZINGIRA

31. Kamaa enkamati emazingira kang'ai naihoji inje

- Engijiji pookin
- E serikali engijiji
- Halmashauri e wilaya womkurugenzi ○
- Orkitok le wilaya
- Tolimu ilomon kulye

31. Kang'ai naihoji enkamati emazingira engijiji

31. Kai iko peesi ho

32a. Kai ngo pee doli enkamati emazingira anake eesiho

- Mee siho opii
- Mee siho
- Ee siho peno ○ Ee siho esidayi
- Ee siho esidayi tukul

32a. Tolimu ojibu lino

33a. Kamaa enjumben enkamati emazingira engijiji esi ho esidayi engijiji

- Mee siho esidayi ana ina nayeuni
- Mee siho
- Eeh siho peno ○ Eeh siho esidayi
- Eeh siho esidayi naleng

33b Tolimu ojibu lino

34a (Ore eleswali kwajili ojumben nemet ankamati emzaingira engijiji)Kai ngo pee eyamini mita heki intokiti emsitu e SULEDO natii atwaendung'anak.

- Aiyamin peno ○
- Aiyamin enginyi ○
- Mayamin opii ○
- Aiyamin nalen'g

34b. Tolimu ojibu lino

ILOITO ENGIGWANA NAIUSU ENDIM E SULEDO

35a. Eeh aloito engigwana naiusu e ndim e SULEDO

- ☐ Eeh
- ☐ Mayeu

35b. Kanyoo pee itu ilo engigwana nabo

- ☐ Itu aikata aihori alo engi
- ☐ gwana ☐ Nanu nemeyeu
- ☐ Tolimu ojibu lino

35b. Tolimu e sababu ngai

36a. Ihomo aikata aihudhuria engigwana olotoro anaa niterwak SULEDO?

- ☐ Eeh
- ☐ Mayeu

36b. Amaa pilo mafunzo kengolong'l aja etobiko tengigwana?_____

36c. Kanyoo piitu ilo aikata engigwana?_____

- ☐ Ituu aikata atumu eng'asyata nalotye engigwana
- ☐ Nanuu nemeyeu
- ☐ Tolimu ojibu lino

36c. Kanyoo pee ituai kata ilo engigwana_____

KANYOO ENGASI E SULEDO TONDUNG'ANAK

37a. Kamaa engigwanar e SULEDO keyeu o mkutano mkuu lengijiji

- ☐ Eeh
- ☐ Mayeu
- ☐ Mayolo

37b. Amaa tene sipaa kanyoo edung'oto engigwana lemcutano mkuu lengijiji(tegeluu ororei obo)

- ☐ Kai ingoko tenelo matata endim SULEDO
 - ☐ Kamaa tenedanyi irkeeki kanyoo itumu indong'anak
 - ☐ Kai ingoko teneori imbesai naingwaa SULEDO
 - ☐ Kiimyeki ingigwanat kunyinyik e SULEDO ☐
- Tolimu ojibu lino

37b. Tolimu ilomo kulye_____

38a. Ihomo aikata engigwanar e serikali engijiji naiusu SULEDO

- ☐ Eeh
- ☐ Mayeu

38b. Kaja ingigwanat nihomo iiye_____

38c. Kamaa pilo kanyoo etejoki tengigwanar_____

38d.Enjoo pee siipa ihomo ingigwana e mwisho olapa kanyoo etejoki (Tolari)_____

38e. Kanyoo aikata piitu lo engigwanar naboo

- Itu aikata atum eng'asyata nalotye engigwanar
- Nanu nemeyeu
- Tolimu ojibu lino

38e. Tolimu ilomo kulye

39. Eeata eng'asyata nilotye engigwanar e SULEDO?

- Eeh
- Mayeu

40. Eeta eng'eno nilotye engigwanar endim e SULEDO

- Eeh
- Mayeu

41a. Kamaa SULEDO kanyoo etoponoo tengijiji e SULEDO

- Eeh
- Mayeu

41a. Tolimu ilomo kulye

42a. Kamaa SULEDO kanyoo ilomon osiita?

- Torrono naleng
- Torrono
- Torrono peno ○
- Sidai
- Sidai naleng

42b. Tolimu ilomo kulye

KANYOO ETUMITO INDUNG'ANAK

43a. Itumi toto faida te SULEDO

- Eeh
- Mayeu

43b. Enjoo pesii pa itumitoto faida e SULEDO ?

- Indokiting enjatare
- Ewi nadare enginhu ○
- Kesi sidai engai
- Irkeek
- Irkeek (kuni) ○
- Inguku
- Imbesai

- Ingasii
- Irkeek lenguruma
- Tolimu ojibu lino

43b. Tolimu ilomo kulye_____

43c. Injoo pee meetii faida tolimu kanyoo?

- Eyaenkamati imbesai kulye pee eyasyiki ingasi engopesi
- Imitahek SULEDO engasin endim esidayi
- Kamaa imbesai napuku te SULEDO kelakyeki ilaisungun ○
- Tolimu ojibu lino

43c. Kanyoo pee itu etum faida?

44a. Kamaa inyorhinyorho engasi ombesai enikoni te SULEDO

- Me sidai opii
- Me sidaii
- Peno ○
- Anyor
- Anyor naleng

45a. Kamaa iyolo imbesai napwoo engijijini e SULEDO

- Eeh
- Mayeu

45b. Kaja imbesai nainotoki te SULEDO_____

46. Kaja ikunakin nenapesai teneori_____

- Etoo roki engijijini
- Ketalakyeki esile
- Etalakyeki esile oongamatin enkanda ○
- Tolimu ojibu lino

47a. Kang'ai nainoto faida sapuk te SULEDO

- Kenkamati nainoto faida e SULEDO
- Kenkamati engijiji
- Kengijiji pii ○
- Kelaisungun ○
- Kewilaya
- Keserikali sapuk ○
- Keserikali engijiji

47b. Tolimu ilomo kulye_____

48a. ketiyii olomon oewo aing'uraa imbesai naapuku te SULEDO

- Eeh
- Mayeu

- Mayolo

48b. Kaja ingolonyi naewo ondung'an aiteng'eniho te SULEDO tangu pee iterun _____

49a. Igirara apokyee endim e SULEDO

- Eeh
- Mayeu

49b. Amaa tenesipaa kanyoo itumi toto?

- Kewii nadare
 - ingihu ○ Irkeek (Kuni)
 - Ing'opeta
 - Irkeek(mbao)
 - Irkeek lenguruma ○
- Tolimu ojibu lino

49c. kanyoo indokit nitumitoto te SULEDO _____

49c. Kanyoo pee mitu mitoto onyoo te SULEDO

- Anake miruhusuno te SULEDO
 - Kelakwaa endim e SULEDO
 - Katuum endokiting endim naing'wa ingulukon ○
- Tolimu ojibu lino

49c. Tolimu ilomo kulye

50a. Kamaa SULEDO kitumia e sheria kinyii

- Eeeh
 - Mayeu ○
- Mayolo

50b. Tolimu endoki niyolo tesheria e SULEDO _____

51a. Iyoolo adhabu naihoru ondung'ani oitarweye endim

- Eeh
- Mayeu
- Mayolo

51a Injoo pee sipa kanyoo eeyarata _____

- Eeh
- Mayeu
- Mayolo

51b. Napiki ondung'ani oitarweye endim _____

52. Ketii ondung'ani oihokii adhabu

- Eeh
- Mayeu

- Mayolo

53a. Kaa sheria itumitai te SULEDO kaabarakinoto nasetai _____

53b. Kang'ai naiitibiru e sheria endim?

- Kelaisungun
- Kenkamati enkanda endim ondung'anak e SULEDO
- Kenkamatiengijiji endim e SULEDO
- Kesorikali engijiji
- Kesorikali sapuk
- Kengijiji pii

54a. Kamaa engijiji keyolo sheria kiinyii wobarakinot engijiji e SULEDO

- Eeh
- Mayeu
- Mayolo

54b. Injoo pee sipa ihomo ingigwana?

- Aihokii embalani
- Atiyakakii tolimu sheria kinyii
- Ahomo engigwana engelale niruki
- Ahomo engigwana oobarakinot e SULEDO
- Ahomo aasi engasin pookin endim
- Ahomo aasi embarakinot endim

54c. Kanyoo pee itu ilo engigwana

- Ituu aikata aihori embalane
- Nanu nemeyeu
- Tolimu ojibu lino

54c. Tolimu ilomo kulye

55a. Kamaa e sheria endim e SULEDO kanu etibirwak toondu ng'an?

- Eeh
- Mayeu

55b. Enjoo pee sipa kang'ai naitibirwa

- Kengijiji omkutano mkuu
- Kehalmashauli e wilaya
- Kenkamati enkanda a mazingira endim e SULEDO
- Kenkamati enkijiji
- Kesorikali engijiji
- Kemkurugenzi we Idara endim olotorok
- Tolimu ojibu lino

55b. Tolimu tenetii ondung'an oimye sheria _____

56a. ihomo aikata engigwana nabo esheria kinyii endim e SULEDO

- Eeh
- Mayeu

56b. Kanyoo aikata pee itulo engigwanar

- Ituu aikata aihori embalani engigwana
- Nanu nemeyeu
- Tolimu ojibu lino

56b Tolimu ilomo kulye

KANYOO ITUMITOTO TESULEDO POOKING

57a. iyolo ibarakinot endim e SULEDO

- p Eeh
- Mayeu

57b. Kanyoo ibarakinot apaa e SULEDO

- Kenju mataa endim
- Petuu mi poking embesai
- Mayolo
- Tolimu lomon kulye

57b Tolim indokiting kulye_____

57c. Inotokityo ibarakinot

- Eeh
- Mayeu

57d. Kanyoo pee itu ipopo

- Meeata faida tongijijini
- Inyalitai endim lapurko aya imbaai e SULEDO
- Metii ilaitahekino lendim e SULEDO
- Tolimu lomon kulye

57d Tolimu lomon kulye_____

58a. Kamaa ondau lino keyeu nepuku tengitaheknoto e SULEDO anaapa ee iterunii endim e SULEDO

- Itoponee
- Metii imbonoto
- Itong'oro

58b. Tolim lomon kulye_____

59. Kaaton iyeu nijingi atwaa obarakinoto e SULEDO

- Eeh
- Mayeu

- Tolim lomon kulye

60a. Kamaa imbesai nitumi toto tendimu e SULEDO ketabaitye aja otarehe obo olapa imyeti

- Torono
- naleng ○ Torono
- Peno
- Sidai
- Sidai naleng

60b. Tolimu lomon kulye_____

61. lyata endoki nilimu kuhusu enkamati e mazingira engijiji itibirayo_____

TAARA ENDOK NAIHIRITA

Atabaye tengasii nekinjoo ng'ole ashee

Tipika engarna ino atwaa enee

- Inganya embalani ino.

APPENDIX 22: CHECKLIST FOR KEY INFORMANTS AT LOCAL LEVEL

1. How was the CBFM process started in SULEDO?
2. How do members of Village and Zonal Environmental Committee assume their positions?
3. How were SULEDO VLFR by-laws formulated and who approved them?
4. What were the objectives of establishing SULEDO VLFR and did the objectives changed over time?
5. To whom are VEC and ZEC accountable and how?
6. What is the mechanism of sharing benefits from SULEDO?
7. Have VEC/ZEC been able to process cases of larger encroachments?
8. Who is responsible for managing SULEDO VLFR assets?
9. How do local communities benefit from SULEDO VLFR assets?
10. Are there any challenges/ constraints you have faced during implementation of SULEDO VLFR?
11. Do you have any suggestions on what should be done to improve the management of SULEDO VLFR?

APPENDIX 23: GUIDE FOR FOCUS GROUP DISCUSSION

1. How were SULEDO VLFR by-laws formulated and who approved them?
2. Forest by-laws awareness
3. How are the decisions of SULEDO VLFR made and who is involved in making decisions of SULEDO VLFR?
4. How do you benefit from SULEDO VLFR?
5. Awareness of SULEDO VLFR revenue and expenditure
6. Training about management of SULEDO VLFR
7. How do local community access timber from SULEDO VLFR?
8. How do members of Village and Zonal Environmental Committee assume their positions?
9. Awareness of term for VEC members election
10. What is the status of your commitment to implement PFM approach?
11. Is there any challenges/ constraints you have faced during implementation of SULEDO VLFR?
12. Do you have any suggestion on what should be done to improve the management of SULEDO VLFR?

APPENDIX 24: MODEL-AVERAGED COEFFICIENTS

		Estimate	Std.Error	Adjusted SE	z value	Pr(> z)
Participation in village assembly	Age	0.010	0.002	0.002	4.261	2.04e-05 ***
	Education	0.018	0.010	0.010	1.888	0.059 .
	Gender	0.207	0.058	0.058	3.538	0.000404 ***
	Organisation	0.130	0.076	0.076	1.695	0.090 .
	Wealth	0.081	0.103	0.103	0.781	0.435
	Committee	0.052	0.073	0.073	0.714	0.475
	Immigration	0.004	0.029	0.029	0.124	0.902
Adjusted R-squared: 0.20 AICc: 266.29 delta AICc: 0.00 AICc Weight: 0.17						
Participation in election	Committee	0.448	0.067	0.068	6.617	<2e-16 ***
	Age	0.001	0.002	0.002	0.558	0.577
	Education	-0.003	0.006	0.006	0.487	0.626
	Immigration	0.022	0.045	0.045	0.485	0.628
	Gender	-0.013	0.036	0.036	0.364	0.716
	Wealth	-0.012	0.049	0.049	0.253	0.8
	Organisation	0.007	0.030	0.03	0.224	0.822
Adjusted R-squared:0.16 AICc: 237.09 delta AICc: 0.00 AICc Weight: 0.09						

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

APPENDIX 26: STRATIFICATION OF RESPONDENTS ACCORDING TO GENDER AND WEALTH CATEGORY

Sunya village

Mnadani sub village				
Wealth category			Gender	
	Male		Female	Total
Poor	17		26	43
Medium	14		12	26
Rich	2		2	4
Total	33		40	73
Lendoru sub village				
Poor	25		23	48
Medium	8		10	18
Rich	3		4	7
Total	36		37	73
Engang'ungare village				
Longungu sub village				
Poor	2		1	3
Medium	5		6	11
Rich	1		2	3
Total	8		9	17
Mтуру sub village				
Poor	1		2	3
Medium	3		7	10
Rich	1		3	3
Total	5		12	17

APPENDIX 27: WEALTH INDICATORS

Name of village	Sub village	Wealth category	Wealth indicators
Sunya	Mnadani	Rich	Car
			Cattles >=100
			Guest house
			Wholesale shop
			Tractor
			Three meals per day and soft drinks
			House with burn bricks wall and floor with cement, roof of iron sheets
			Farm size >=100
		Medium	Small shop
			Kiosk/ restaurant
			Government employment
			Farm 1-99 ha
			Cattles 1-99
			Goats 1-30
			chickens 1-20
			Rabbit 1-20
			Ducks 1-6
			Three meals per day
			Ex cut at least 2
	Lendoru	Poor	Widow, older
			Meals 0-1 per day
			Roof, Dilapidated thatched grass wall, poor-constructed poles and mud
			No livestock/poultry
			Farm >=70ha
			Cattles >=200
			Sheeps >=150

			Tractor
			Three meals per day
		Medium	Cattles <=199
			Goats<=199
			Sheeps<=149
			farm size <=69ha
			Three meals per day
		Poor	Poor-constructed poles and mud wall, Dilapidated thatched grass roof
			No livestock
			Poultry <=10
Name of village	Sub village	Wealth category	Wealth indicators
Engang'ungare	Mturu and Longoongu	Rich	Cattle >=200
			Farm size =>20
			Goats >= 200
			Sheeps>=200
			Donkeys>=4
			Chicken>=10
			3-8 Wives
			Guest houses
			3 meals per day
		Medium	Cattle 3-199
			Farm size 6-19
			Goats 2-199
			Sheeps 3-199
			Donkeys 2-3
			Chickens 5-9
			1-2 wives
			2 meals per day

	Government employment
Poor	Cattle <=2
	Farm size <=5
	Goats <=2
	Chickens<=4
	Donkeys<=1
	2 meals per day

APPENDIX 28: DETERMINANT OF SATISFACTION RATE WITH MECHANISM OF BENEFITS SHARING

	Estimate	Std. Error	t value	Pr(> t)
Wealth	-0.022	0.269	-0.080	0.936
Gender	-0.247	0.161	-1.529	0.128
Age	-0.003	0.006	-0.382	0.703
Immigration	-0.552	0.168	-3.283	0.001 **
Organisation	0.435	0.176	2.465	0.014 *
Committee	-0.221	0.202	-1.099	0.273
Education	0.003	0.023	0.023	0.911

Adjusted R-squared: 0.06

AICc: 726.59

delta AICc: 0.00

AICc Weight: 0.17

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

List of Key Informants RQ 3

1. Staffs at Ministry of Natural Resources and Tourism who were involved in the process of PFM policies formulation
2. Academic institutions (e.g. Sokoine University of Agriculture ;)
3. Research Institution (e.g. Tanzania Forestry Research Institute)
4. Agency (e.g. Tanzania Tree Seeds Agency)
5. Local Government (e.g at District level)
6. NGOs (e.g. SIDA)

Chapter 4; RQ 3; How PFM policy/strategy was formulated

(A) Where the idea of PFM policies came from?

1. To start with I'd like to know more about what your involvement has been in the formulation of PFM policy
2. Can you explain on how PFM policy was designed and what influenced the design (aim is to see if the design of PFM policy borrowed any experience from other countries/pilot projects/previous forest policies but also this will be used as prompts question when respondent fail to respond to question)
3. Do you remember what other stakeholders were involved in formulation of PFM policies, and what roles did they play?

(B) Which stakeholders had greater/lesser influence or power over policy formulation (Whose views and interests prevailed?)

4. During the design of PFM policies, who did you think should have a right to be involved in PFM, what powers did you think they should be given, and to who and how did you think they should be held accountable.
5. Can you remember the views and interest of other stakeholders (Individuals/ institutional/ international frameworks and agencies) on these matters?

6. Who do you think should be involved in forest management?
7. Which stakeholder (Individuals/ institutional/ international frameworks and agencies) had more power or influence in PFM policy formulation?
8. Can you remember why that individual / institutional/ international frameworks had more power? Please can you give evidence to prove that?

(C) How did the formulation of PFM policies consider to include the different interests and issues from different stakeholders? (Key aspect is inclusion and representation of common citizens and local people in the decision making process)

9. Can you remember stages involved in the process of PFM policy formulation?
11. Could you explain on how local communities were involved in each the stages of PFM policies formulation?
10. What were the advantages and disadvantages of involving local communities in formulating PFM policy?
11. Can you tell me about any challenges/issues you faced during PFM policy formulation and how you resolved them?
- 12a. Of the local people living near to the forest reserves (JFM and CBFM) who do you think should be involved in forest management?
- 12b. How should they be involved?
13. In your opinion is PFM policy effective at improving forest governance? If effective can you explain how has PFM policy improved forest governance?
-If not currently, could it be improved, and how
14. Are there any documents about PFM policy formulation that could be useful for me? (If yes please indicate which documents)

(E.g. minutes available, review meeting notes etc.).
15. Is there anything else you would like to add that you think are necessary to what we have been talking about? /Ask me?

APPENDIX 30: SUMMARY OF RESULTS FOR RQ 3

Question	Quotations
Where the idea of PFM policies came from?	Swedish government under SIDA project in early 1990s brought the idea of PFM strategy in Tanzania, where by PFM pilots projects first established in Duru Haitemba and Mgori Forest reserves in Manyara and Singida regions respectively. After the government recognised that PFM pilot projects perform better in improving forest condition, in 1996 the process of incorporating the PFM into national Forest Policy started (Respondent 1).
	The idea of PFM originated from the way forest resources was, in the sense that Tanzania had a heavy loss of state forests before 1990s, and the government was not able to manage forest resources (Respondent 2).
	The idea of PFM originated from the project called Community Forest that operated in Tanzania from 1988-2002, funded by SIDA. SIDA brought different technologies to different countries across the world including Tanzania BUT some of the technologies brought a lot of resistance including Community Forest. I was working as a head of in-service training unit in Community Forest projects (Respondent 3).
	It was my own initiatives to start involving local communities in forest management, in 1995 by that time I was working as a forest officer in Hanang' district. I started to involve local communities in forest management due to lack of resources to manage forests. (Respondent 4).
	The terminology PFM came around 1990s through LAMP project that started with pilot projects in Duru Haitemba and Mgori forest reserves in Manyara and Singida regions respectively. However, even before that it seemed that the approach was practise in different forms, though there was no clear term. The terminologies used before PFM were Social Forestry and Village Afforestation that started in 1970s (Respondent 5).
	The idea of PFM initiated by top leaders within the forest sector. The reasons for initiating the idea

	was due to lack of enough human resources to take care of the forest resources. Therefore, forest sectors found the best solution was to involve local communities in order to overcome the challenge. (Respondent 6).
	In 1970-1981 Tanzania implemented Village afforestation or social forestry project funded by SIDA. Followed by Community Forest project in 1992-1987. Community Forest project emphasized also in situ conservation, whereby communities were emphasized to participate in conservation of natural forests. It was from this time PFM pilot project for in-situ conservation was established (Respondent 7).
	I was only involved during PFM guidelines formulation, so I don't know where the idea of PFM came from (Respondent 8).
	Before 1990s forests in Tanzania was under state management. However, many reports showed that the rate deforestation increased. In addition, local communities treated the forest reserves as open access. While government had, shortage of resources e.g. staffs and fund to take care of the forests. This situation led the government of Tanzania to opt that more power in management of the forest should be devolved to local communities. (Respondent 9)
	The idea of PFM was pushed by donors but most of the stakeholders that were involved in the process of the policy formulation were not happy with this idea (Respondent 10)
	The whole idea was brought by me but to be honest we did not do with what anyone was doing, it was the practical experience me with very good district forest officers in the PFM pilot project. (Respondent 11).
Where did design of PFM policy borrowed experience	The process of formulating PFM strategy borrowed some experience from these pilot projects but also forest staffs from Forest and Beekeeping Division were facilitated by the government to visit other countries e.g. Zimbabwe so as to learn from them on how PFM strategy work. Likewise, some studies were conducted by SUA and TAFORI to see how PFM

	strategy can work in Tanzania. All these provided inputs to PFM policy. In connection to that, greater consultancy for the policy formulation process was Finland (Respondent 1).
	The PFM policy design borrowed experience not only from PFM pilot projects that established in Tanzania but also from other countries such as India that had already experience on PFM. Respondent thought that there was some correspondence, because some of the forest staffs went to India for short visit to learn how PFM work, other experience obtained from literatures (Respondent 2).
	LAMP projects in Dodoma, Singida (Mgori Forest Reserves) and Arusha (Duru Haitemba) brought the idea of involving local communities with the element of ownership. Achievement of PFM pilot projects influenced most of individuals to change their mind and support the idea of using local communities with their local knowledge to make sustainable forest management. After the pilot projects gained achievement and the government found that there is achievement in forest management when local communities are involved. After seen that achievement, Directors within forest sector started to have short visit to another countries e.g Nepal to see how PFM works. However, they found that Tanzania was not far from Nepal, the problem of Tanzania was lack of system that was formalised in forest policy (Respondent 3).
	The formulation of PFM strategy borrowed experience from other forests that practising PFM informally and some experience obtained from literature review. On the other hand, I used field experience because I was practised the approach informally.(Respondent 4).
	The process was a consultancy process, and borrowed experience from PFM pilot under LAMP project supported by SIDA, NORAD and DANIDA for about 8 years before formalizing the strategy into the Forest Policy and Act. Likewise, during the process, consultancies borrowed experience from Asian countries. E.g. India. In addition, some

	other experience obtained from literature review (Respondent 5).
	During PFM strategy formulation, experts borrowed experience from Asian countries e.g Thailand, on how PFM work (Respondent 6).
	The strategy was designed mainly based on the experience from the PFM pilot projects. On the other hand, experts from Tanzania borrowed experience from different countries such as Kenya, experts from Tanzania visited KEFRI in Kenya to get experience on how Kenya was implementing Social Forestry. Likewise, the experts visited Thailand to get experience on implementation of community forestry in Thailand. Some experience borrowed from Eastern Asian countries. Therefore, experts from Tanzania used these experiences to localize the PFM strategy into National Forest Policy (Respondent 7).
	The process of PFM strategy formulation borrowed experience Asian countries BUT I don't much detail because my involved was during Guidelines and Policy formulation (Respondent 8)
	The process of PFM strategy formulation borrowed experience from India. Respondent 9 visited India during the process to get experience on how PFM work"(Respondent 9).
	"The design of the PFM policy borrowed experience from SIDA experts, The introduction of the PFM in Tanzania was pushed by donors (SIDA). Most of the Stakeholders that were involved in the process of the policy formulation including me, were not happy with the idea, because we knew that the implementation of it will not be sustainable since it's depend on donor support. At the end PFM will not be sustainable and by that time and our original ways of managing the forests will be suppressed. (Respondent 10).
	But to be honest we did not do with what anyone was doing, it was the practical experience me with very good district forest officers in the PFM pilot projects (Respondents 11).

During the design of PFM policies, who did you think should have a right to be involved in PFM,	<p>Actors</p> <p>I was a director of FBD so I was responsible to say on behalf of the division and give final approval of policy at division level. Therefore, respondent agreed with all the opinions that were in the draft policy. Respondent 1.</p>
	I proposed farmers to be foremost stakeholders in PFM, especially those adjacent to forest resources Respondent 2
	All local communities should be involved but establishment of CBFM should consider different categories e.g. Village, Group or individual it depend on the type of forest resource, In JFM, all local communities should be involved at Village level but through Village Environment Committee (Respondent 3).
	I proposed youth that are trustful to be member of VEC, within those youth female should be considered. (Respondent 4).
	All local community should be involved through a certain group (Village Natural Resource Committees) to make sure that the committee work within the Village government structure. Composition of the Committee; age class, cut across gender category (female and male) (Respondent 5).
	All members at the village level should be involved but vulnerable groups (e.g. Women, disabled, and youth) should be given more priority in the PFM activities and their rights should be taken into consideration. The composition of the committee should be gender balanced and represent all groups at the community to ensure consideration of their rights during implementation (Respondent 6).
	I proposed all villagers should have right to be involved in PFM. Because their main users and they know how the forests resources could be used sustainably. Targeted local institution was Village government, with village government. under Village government, there is different village committees among these committees is Village Environmental Committee 30% of the members of the committee should be women and

	70% should be men. Likewise, the committee should represent different groups (pastoralists, farmers and influential individuals). (Respondent 7).
	All villages adjacent to forest reserve should be involve, however they need to form Village Environmental Committee that will manage the forest on their behalf. Respondent 8.
	All local communities should be involved and women should be considered more on the implementation of the process. However, local communities should form Village Natural Resource committee that will be managing the forest on their behalf. (Respondent 9).
	Central government should continue to manage the forest. (Respondent 10).
	In line with what the current PFM policy is. Respondent 11.
What powers did you think they should be given?	<p>Local communities should be empowered with the sense of ownership.</p> <ul style="list-style-type: none"> - Empowered with rights to utilize forest resources - Power to share any revenue obtained from PFM approach. - Power to create forest by laws to guide forest management. - Power to first approval forest by laws - Whereby district council decline or fail to approve the forest by laws on time local communities should be allowed to adopt the model by laws (Respondent 3).
	<p>Local communities should be empowered with power to utilize all the revenue obtained from the PFM forest</p> <p>-Village government should be responsible to make decision on how to utilize obtained revenue from the forest, but before starting to utilize the revenue, the proposed decision has to be send to District Forest Manager. In addition, all the revenue should be spend on village development projects e.g-building schools.</p> <p>-Capacity building should be given to local communities on report writing, records keeping.</p>

	<p>-Forest by-laws under PFM, should be prepared by local communities with facilitation from forest staffs. First the by-laws should be prepared by Village Government, then approved by Village assembly, then endorsed by District council and villagers should be empowered to dismiss committee members who act against the forest management plan (Respondent 4).</p>
	<p>Utilization rights-local communities should have rights to access forest resources on the buffer zone (JFM)</p> <p>-Local communities should be supported with income generating activities (e.g. Fishing and Beekeeping activities), specifically those forests on JFM, because the forests under this arrangement are catchment no harvest of forest products.</p> <p>-Management capacity,-Local communities should be given working tools e.g. boots, bicycles</p> <p>-VNRC should be trained on how to work with PFM and then VNRC should train other non-members of VNRC.</p> <p>-Forest by-laws under PFM, should be prepared by local communities with facilitation from forest staffs. first the by-laws should be prepared by Village Government, then approved by Village assembly, then endorsed by District council (Respondent 5).</p>
	<p>-Local communities should be empowered with only utilization rights and management capacity. For example, respondent 6 proposed that all groups that depend on forest resources should be allowed to access forest products. E.g. women should be allowed to access wild vegetables, traditional healers should be allowed to access medicinal plants, beekeepers should be allowed to keep their beehives in the forest.</p> <p>-Awareness to local communities and committee on their roles and responsibilities with regard to PFM implementation</p> <p>- Provision of training on forest governance, creation of forest bylaws to local communities and committee.</p> <p>-Awareness creation on local communities on how they will benefit from the approach (Respondent 6).</p>

	<p>VNRCs should be empowered with skills on record keeping, forest patrol. Likewise, VNRCs should have power to formulate by laws with facilitation from forest officers. In addition, local communities should retain 100% of all revenue obtained from the approach. In JFM local communities should retain 40% and 60% to government (Respondent 7).</p>
	<p>VEC should be empowered with management capacity</p> <ul style="list-style-type: none"> -Forest official should facilitate VEC during preparation of harvesting and management plans and guide to operationalize them -VEC should be empowered with skills on how to formulate by laws and operationalize them. -VEC need to be trained on how to manage finances because sometimes the village government can get some money out of confiscated timber -There should be a closer monitoring and closer partnerships between Village Environmental Committee, Village government with experts at district level (CBFM) and central government (JFM). -There should be proper and clear mechanism for sharing benefits and this has been a discussion for long time, not sure if this has been resolved. - In CBFM local communities should charge and retain the all money for them to manage the forest (Respondent 8).
	<p>Experts should create awareness to local community on ownerships, local communities should be aware that they own forest.</p> <ul style="list-style-type: none"> -Government should provide skills to local communities on forest patrol, together with equipment's -Local communities should be empowered with utilization rights e.g. access to tangible benefits -Funds obtained from the approach should contribute to individual or household income and not village development projects. This was the experience borrowed from India (Respondent 9).

<p>To who and how did you think they should be held accountable.</p>	<p>In JFM, local community should be accountable to the owner of the forest, which is central government, because in JFM local communities are invited in managerial issue but not for ownerships</p> <p>-In CBFM, local community should be accountable to the director of Forest and Beekeeping division, because the power devolved from Director of FBD to local communities but Director has empowered DFO to make sure all the forest resources are managed according to PFM policy, Act and guidelines. Therefore, local communities are accountable to DFO by sending update progress quarterly report after each three months (Respondent 3).</p>
	<p>VEC should be accountable to Village government. Because VEC is among small committee under Village government. In addition, in every Village Government meeting Chair or secretary or any member of VEC should attend the meeting to discuss forest management issues.</p> <p>- Village chairperson need to update other local communities about forest progress through village general assembly (Village chairperson) (Respondent 4).</p>
	<p>VNRC should be accountable to Village government so as not to work outside the village government structure. Therefore, Village government represent all local communities</p> <p>-Village chairperson should give forest report to local communities through village assembly (Respondent 5).</p>
	<p>Village Environmental Committee should be downward accountable to Village government and upward accountable to Director of Forest and Beekeeping Division by reporting management progress of the forests (Respondent 6).</p>
	<p>VNRC should be accountable to Village Environmental Committee that is under village government. Nevertheless, in other village where this committee was independent, the committee should be accountable to Village government.</p> <p>- All villagers should elect members of Village Natural Resource Committee through village assembly (Respondent 7).</p>

	<p>In CBFM, Village Environmental Committee should be accountable to Village Government</p> <p>-In JFM, the VEC should be accountable to Village government and Central government through Village government (Respondent 8).</p> <p>-However, the inputs from PFM consultancy came when PFM was on implementation stage. The reasons that cause late implementation of the consultancy, was bureaucracy to Forest and Beekeeping Division to decide who should take the consultancy. Because a number of institutions showed interest to take the consultancy (Respondent 8).</p>
	<p>VNRC should be accountable to Village government while in JFM, VNRC should be accountable to central government (Respondent 9).</p>
	<p>I was not happy with the introduction of PFM idea, because it was seemed that government have failed to take care of the forest resources and wants to involve local communities who were source of illegal activities, I thought about this proverbs if you can't beat them, join them (Titelman 1996). I thought this policy came from abroad and was pushed by donors (Respondents 10).</p>
	<p>-During developments of Forest act, I worked quietly closely with various colleagues of mine, who had been drafting the new land law, so I was sending the draft of forest laws to him ask him for comments (Respondent 11).</p> <p>-The PFM guidelines was developed by me but with a lot of inputs from District Forest Officers and District catchment Officer</p> <p>In developing PFM guidelines I was by then working a lot with District Forest Officers , District Catchment officers, we had meeting in 1998 and 1999 (Respondent 11).</p>
Can you remember the views and interest of other stakeholders	<p>I can't remember who specifically said what but what I remember there was individuals with different opinions but at the end, the idea of involving local communities in Forest Management prevailed. In any process of formulating strategy it's impossible for all stakeholders to subscribe with the proposed issue.</p>

	Therefore we experience this also during PFM strategy formulation (Respondent 1).
	<p>Forest staffs were reluctant to give power to farmers to own and manage the forests. Their main concern was how you can give power to victim of forest illegal activities to manage forest. But after discussing with them, then we agree that if we will create laws then PFM strategy can work effective</p> <p>-how trustful will farmer be to take care of forest resources (Respondent 2).</p>
	Some of the forest staffs under FBD, had negative attitude toward PFM. They wanted forests to continue to manage by central government and some didn't want local communities to get anything from PFM. They wanted local communities to be involved in managerial of the forest resources and not empowered to utilize forest resources or benefits accrued from the approach. Empowered to manage and to utilize other proposed that local communities should not be empowered.
	We get resistance when we started introducing the idea that local communities should be involved in forest management, local communities where complain that you want us to be involved us in forest management is fine, BUT how about those people living far away from the forest and are utilizing forest resources e.g. water how will they participate in helping us to manage our forest?. If possible let them participate also. But it was not possible to accommodate this opinion (Respondent 4).
	<p>Local communities in JFM wanted that each revenue accrued from the forest should be shared between the community and government, which was not possible</p> <p>-Most people suggested that there should be revenue sharing from harvest. But in practise- Most of CBFM forest are established on degraded forests therefore it need long time to be restored and also growth rate of natural trees is slow. So expectation were not met (Respondent 5).</p>

	<p>Other stakeholders (mostly government officials) resisted to empower local communities to manage forest resources, thinking that empowering them will increase the rate of deforestation. Because local community are the main causative of deforestation. -In addition, management of the forest resources is the responsibility of the government and not local community. The issue was resolved by explain to them that, the government have no enough capacity e.g. human resource to take care of the forests. Therefore, local communities should be involved to overcome the challenge.</p> <p>-In JFM local communities wanted to share with government each revenue that would be generated from the approach. However, the government proposed small percent and local communities claimed that the percent is not satisfactory. - Some of the local communities wanted to implement the approach with the absence of forest officials, (Prevailed in CBFM policy doc and is in line with devolution), claimed that forest officers are the sources of illegal activities.</p> <p>-In CBFM local communities proposed that once they will start implementing the approach they should also be allowed to start harvesting the forest products, e.g. Timbers. However this was not possible because local communities supposed first to be trained on how to manage the forest, and then manage the forest for sometimes until the forest become into desired condition.</p> <p>(Respondent 6).</p>
	<p>-Some local communities did want to be involved in implementing the strategy; they thought that the strategy will restrict them in accessing the forest resources free, any day and any time.</p> <p>-Some of the local communities wanted to implement the approach with the absence of forest officials, claimed that forest officers are the sources of illegal activities (forest officers are corrupted and would allow individuals to access the forests illegally), and local communities would not be able to restrict them. Therefore, they</p>

	<p>would not be able to implement the approach effectively with their presence.</p> <p>-There was lack of willing from other stakeholders to empower local communities to manage forest resources, thinking that local communities would not be able to manage forest resources effective, because their sources of illegal activities. However, outsiders caused most of the illegal activities in the village forests. Therefore, empowering local communities to manage forests would enable them to exclude outsiders (Respondent 7).</p>
	<p>NGOs proposed that local communities in CBFM should be full empowered, in such a way they could issue licence on their own and manage harvesting of the forest resources. Because when the District Forest Officers would be allowed to issue license to individuals who want to harvest on Village Forest Reserves. Local communities would not have power to access that money</p> <p>In JFM, most stakeholders proposed local communities should get some percent of approach benefits. However, at that stage stakeholders did not make conclusion on what percent that local communities should get. Likewise, stakeholders proposed that because government want to share with local communities to manage forests, therefore government should devolve most of the activities to local communities (Respondent 8).</p>
	<p>Other stakeholders did not want to empower local communities to manage forest resources, thinking that the forest sector is going back to Ujamaa system. Too much democracy in forest management would led to forest deforestation.</p> <p>-Forest laws should be restricted to make them effective other (Respondent 9).</p>
	<p>Forest officials wanted the forests to continue to be centralised for effective management (Respondent 10).</p>
	<p>Some forest officials were reluctant to involve local communities, not interested in anything on social forest (Respondent 11).</p>

Can you remember why that individual / institutional / international framework had more power? Please can you give evidence to prove that?	- FBD had more power on the process, because the division had institutional power to eventually approve any policy or strategy concerning forest resources. However, the division was receiving opinions and advice from different stakeholders but still FBD had more influence on the proposed policy or strategy than other stakeholders did. Therefore in the process FBD was organising and facilitating the process and finally approve the strategy after doing systematic review to see whether the strategy will work in the context of Tanzania (Respondent 1).
	SIDA supported the process financially and provided expertise on PFM (Respondent 2).
	<p>Because a staff from SIDA was an expert on PFM and had a lot of experience on the approach. The first guidelines of CBFM formulated under facilitation of a staff from SIDA. Apart from that a staff from SIDA, was also responsible in creating awareness to implementers of PFM strategy in Tanzania. A staff from SIDA worked in Tanzania since 1988-2002.</p> <p>A senior staff from FBD was more aware about PFM strategy and because he was having power due to his position at Division level to give final say about any forest strategy. He strongly supported the PFM to be formalised in Forest Policy (Respondent 3).</p>
	No stakeholders with more power or influence on the process of PFM strategy formulation (Respondent 4).
	Donors had more power on the process, because they had funds to finance different forest projects including PFM pilot projects. In addition, most of the funds that supported forest sector was from these donors. The government of Tanzania did not set adequate funds to support forest sector because forest resources in Tanzania was not a priority for the national budget. Therefore a lot of revenue was collected by forest sector but only small percent was given back to run the sector (Respondent 5).

	Forest and Beekeeping Division had more power on the process than other stakeholders because they had final say on the proposed PFM strategy. However, DANIDA, SIDA, Norwegian and World Bank had more influence of the process because they provided finance to support the process of formulating PFM strategy (Respondent 6).
	Because LAMP (SIDA) was the one, that established and supported PFM pilot projects before formalising the PFM strategy into the Forest Policy. Likewise, they had experts with a lot of experience on PFM. However the whole process of National Forest Policy formulation supported by Germany (Respondent 7).
	The process was top –down approach, because the idea brought to other stakeholders by FBD. Therefore, FBD tried to influence people to understand the idea instead of collecting opinions to stakeholders. Because the FBD involved stakeholders when the strategy was already formalized or incorporated in the National Forest Policy of 1998 (Respondent 8).
	Religion leaders had more influence in workshops that involved them. Because of the position that they held in the society (Respondent 9).
	Because staffs from FBD were the facilitator of the process and had already PFM experience (Respondent 10)
	LIZY (SIDA), because the whole idea was brought by me (Respondent 11).
Could you explain on how local communities were involved in each the stages of PFM policies formulation?	Local community were involved at stage 3 and 4 to give their opinions through meetings and workshops. Due to shortage of resources, not all targeted local communities in Tanzania were involved, in the workshops local communities represented by village leaders. Apart from local communities giving their opinions on how the proposed strategy should be, the structure of the process did not provide opportunity to local communities to contribute to the final decision making (Respondent 1).
	Local communities were involved after having draft one for them to give their views and make them aware on what that policy is, and through

	village meetings these was achieved (Respondent 2).
	Local communities were involved at early stage of the process of formulating PFM strategy. Local communities were not involved in decision-making, even their representatives were not involved in decision making during the process of formulating PFM strategy (Respondent 3).
	During the meeting local communities were given opportunity to give out their views and interests; Local communities represented by Village leaders in workshops to discuss further the ideal. However, no representation of local communities in the process of decisions making that considered (Respondent 4).
	Local communities were involved in the first stage of the process, which started by changing local communities previous mind-set to PFM. This achieved through village meetings. After creating awareness, local communities requested to insert their inputs on how PFM should be in different issue. This guided by checklist that prepared by expertise. On the other hand, representatives at village, e.g. village chairperson or secretary invited during the national workshops to give their opinions. Generally, all the guidelines for PFM, formulated based on local community opinions (Respondent 5).
	I don't know because I was not in task force team (Respondent 6).
	Local communities were involved in early stages in order to give their opinion on what they think PFM strategy should. Likewise, local communities were involved in workshops concerning making decision of the PFM strategy documents. At local level, there was late adopter to PFM strategy, because some local communities showed resistance to be involved in the process (Respondent 7).
	Local communities were not involved in the whole process. However, local communities participated to some meetings and workshops to give opinions after experts had draft of the strategy but not in decision making (Respondent 8).

	I don't remember at what stage local communities were involved. BUT I remembered that the process involved local communities (Respondent 9).
	Local communities were involved during zone meetings but not national meetings and workshops. Not sure at which stage they were involved because I was not in the task force (Respondent 10).
QN: What were the advantages and disadvantages of involving local communities in formulating PFM policy?	<p>- More supportive and provide valuable inputs to PFM strategy based on their indigenous knowledge</p> <p>-More awareness about PFM to local communities created and make them participate effectively in forest management during implementation of the strategy, this shown through the pilot projects, and local communities were so effective in implementing the strategy and no disadvantages (Respondent 1).</p>
	<p>Advantages</p> <p>-Local communities involvement helped to get inputs from their indigenous knowledge that help to shape the PFM strategy</p> <p>-Motivate local communities to participate in the implementation process, because they feel like their part of decision-making</p> <p>Disadvantages</p> <p>- Time consuming, Involving local communities it take time though it pay (Respondent 2).</p>
	<p>-Involving helped to get valuable inputs for the strategy because local communities recognised that government valued them</p> <p>-It was easy to build trust with local communities to area where pilot projects established rather than to area where there was no pilot projects no disadvantages (Respondent 3).</p>
	<p>Advantages</p> <p>Indigenous knowledge of local communities inserted good inputs on PFM strategy that help to shape the strategy to fit the context of local people.</p>

	<p>Disadvantages</p> <p>When the idea of PFM introduced to local communities, there were some influential people at local level that inserted resistance on accepting the strategy by praying with minds of other local communities. Influential people convinced local communities not to accept the strategy because they will not benefit from it. (Respondent 4).</p>
	<p>There more disadvantageous of involving local communities in PFM strategy formulation than advantageous. Nevertheless, it is very important to involve local communities in the formulating of PFM strategy, because it pays on the implementation.</p> <p>Advantages;</p> <p>- Involving local community is time consuming but help to reduce some resistance on implementation.</p> <p>We got their opinions that helped the strategy to be accepted easily to area that were involved in formulation of the strategy.</p> <p>Disadvantages;</p> <p>Time consuming, it need a lot of funds, Over expectation to local communities (Respondent 5).</p>
	<p>Advantages</p> <p>Local communities had indigenous knowledge shaped the strategy in the context of local community.</p> <p>Disadvantages</p> <p>-Time consuming, experts forced to use a lot of time to explain more to local communities about the strategy because the strategy was new to them.</p> <p>-It was difficult to local community to trust government if the government real need to involve local communities in forest management or the government want to take the village lands (Respondent 6).</p>
	<p>Advantages</p> <p>Local communities had new knowledge that were articulated into the strategy and this helped the approach be valued to local communities.</p>

	<p>- Informal by laws of local communities used as a start to formulated the practical formal forest by laws (Respondent 7).</p> <p>Disadvantages Marginalised groups were marginalised themselves during the process. They thought that they are not part of process and decision making meetings. Even when experts told them to participate, they did not show any interest</p>
	<p>-Local communities helped experts to understand a number of things at local level that helped to shape the PFM strategy. -Local communities added some important things that were missing in the draft document of the PFM strategy -Local communities removed some of the things that were not problems to them while experts thought would be problem. -Local communities increases their awareness on PFM strategy, later it was easy for them to implement the strategy (Respondent 8).</p>
	<p>Advantages Local communities that were involved in the process became more aware and motivated to implement the approach. Disadvantages No disadvantages (Respondent 9)</p>
	<p>Advantages Helped to change their attitudes that management of the forest is not the responsibility of government. As the way also I was thinking. No disadvantages (Respondent 10).</p>
Any challenges/issues you faced during PFM policy formulation and how you resolved them?	<p>There were a number of challenges during PFM strategy formulation but the main challenge was;- -To decide who to support the process of policy review, because two countries were interested to support the process and it was not possible for the process to be supported by two countries. However, the FBD decided to give the opportunity to Germany to support because the Germany had already started to support forest sector in different issues and they had office at Forest and Beekeeping Division HQ. Formally, the FBD supposed to announce tender and interested</p>

	<p>countries can apply and compete, but when the tender floated, Finland won the consultancy.</p> <p>-There was time constraint to undertake the process of formulating the PFM strategy. The review process of the forest policy was done in only six months, January –June 1997. Within this time, the policy were reviewed and new strategies including PFM incorporated. The consultancy and staffs from FBD were forced to work as harder as possible to meet the deadline. (Respondent 1)</p>
	<p>There were reluctant or mistrust of some individuals within forest sector to devolve power to farmers assuming that they will not be able to take care of the forest resources.</p> <p>-Likewise, mistrust of some individuals within forest sector to farmers that they can actively participate in Forest management</p> <p>How you resolved them?</p> <p>The issue was resolved by arranging study tour and take those who were not trusting farmers to demonstration PFM pilot projects so that they can see how farmers were able to take care of the forest resources (Respondent 2).</p>
	<p>- It was difficult to local community to trust the government whether is real want to empower them. A lot of discussion were conducted to ensure local communities become aware of PFM</p> <p>-Resistance from forest staffs and government leaders, because these individual were not sure if local communities would be able to participate effectively in forest Management. Nevertheless, Respondent 3 expressed that demonstration plots that was already established used to show them that local communities could manage well forests (Respondent 3).</p>
	<p>It was difficult to make clear commitment on how to share benefits with local communities especially in catchment forests and this is still a challenge up to this time (Respondent 4).</p>
	<p>-There was misconception of the whole idea to different stakeholders</p> <p>-In addition, there was resistance within the forest sector (resistance within government), some of the forest staffs did not trust if local communities were able to take care of the forest resources.</p>

	-PFM pilot projects used to resolve all these challenges (Respondent 5).
	<p>There was in adequate funds to support the process that make the process fail to involve all the stakeholders as needed. Therefore, due to this the process involve only representatives.</p> <ul style="list-style-type: none"> - There was resistance from some of the local communities to implement the approach, thinking that once they agree the government would take their land. Experts tried to create awareness to these individuals about PFM. - Some local communities showed interest to implement the approach but due to shortage of Land in their village then it was impossible (Respondent 6).
	<ul style="list-style-type: none"> - Local communities were not trusting if they would benefit from the approach. Awareness created on how they will benefit from the approach - It was difficult to develop trust between local community and government. Local communities did not trust whether the government was serious to involve them in forest management. Awareness created to local communities on why government want involve them in forest management. - In CBFM the challenges was how to practices PFM on the land that has different land uses. There was legislation conflicts between different sectors. The government was not going to local communities as single unit. For example Agricultural sector emphasized expansion of farms and Forest sector emphasized forest conservation, all these on the same land. Currently government through ministry of land provide a clear percent for each land use that ovoid overlapping. For example, the government is not allowing local communities to demarcate more than 1/3 of the village land for Village Land Forest Reserve (Respondent 7).
	Elite capture wanted to dominate the process at village level. They tried sometimes to overshadow other people. Elite capture made meetings to start with a lot of confusion until the middle of the meeting, that where people start to understand

	the idea. The challenge was resolved by forming small different groups for discussion that help to reduce the power and influence of elite capture, because the influence spread out. Forming small groups created room for other people to speak out, then each group had topics and area for discussion (Respondent 8).
	There was inadequate financial resources to support the process e.g. paying allowances to forest officials (Respondent 9).
	Forest officials were worried on the sustainability of the implementation of the PFM policy, because it was seemed that the idea has been pushed by donors and its implementation depend on donor support. What will happen when donor will stop to fund the implementation of the PFM, Our state way of managing the forest will have been collapsed and PFM also will collapse (Respondent 10).
	<p>-Political environment was not supportive. There was resistance from president and director. I note president Mwinyi initially when I first started doing some practically example in Duru Haitemba, because the Presidents was curious on our PFM programme and he actually tried to say we will never try not to let back that women in Tanzania. They were several problems one he thought the whole ideal was ridiculous that the local community could manage the forest and because the whole idea come out of the SIDA</p> <p>-The Director just could not believe that Community forestry would work out and he did not want it at all (Respondent 11).</p>
In your opinion is PFM policy effective at improving forest governance?	To some extent PFM is effective on improving forest governance on CBFM. Because those forests under CBFM arrangement are in better condition than those forests that are on village land without CBFM arrangement. However, in JFM, PFM is not effective (Respondent 1).
	No, however PFM has higher potential to forest management, (Respondent 2).
	No, but PFM can be improved (Respondent 3).

	PFM approach is effective at improving forest governance in CBFM but not in JFM (Respondent 4).
	PFM strategy is not effective, because there still many challenges that need to be resolved (Respondent 5).
	In CBFM, PFM is effective but in JFM, PFM approach is not effective (Respondent 6).
	Is effective in CBFM but in JFM, the approach is not effective on improving forest governance (Respondent 7).
	Mhhhh, No, because Tanzania is calming to loose forests and the loss is increasing over 10 yrs, since PFM started to be implemented (Respondent 8).
	Is effective (Respondent 9).
	Is it effective (Respondent 10).

APPENDIX 31: CHECKLIST FOR KEY INFORMANTS RQ 4

Chapter 5; RQ4: To what extent did the implementation of PFM policy at the national and district levels achieve devolution to local communities? (Key informant interviews with forest staffs at national and district levels)

Research question 4 : Checklist for Key Informants

Demographic Information's

1. Region.....
2. District.....
3. What is your current occupation
5. Gender of respondent
6. Level of education.....
7. How many years have you worked in the field of your activity.....

General questions

1. To start with please tell me how you have been involved in CBFM implementation
2. Would you explain that further about CBFM implementation process and at what stage of implementation is the programme in each of the targeted sites?

5.1 (A) How PFM policy was implemented at the national, regional and district levels (actors, accountability and empowerments?).

- Would you give me an example of how you implemented the CBFM programme?

Prompt questions

- What is the local institution in CBFM?
- Who puts local institution members in their positions?
- How members of local institution assume their position
- Can you tell me how marginalised groups are considered in the programme?
- How did you considered building capacity to local institutions and local communities with regard to CBFM

- Would you give me an example on how local institution and local community were able e.g. to utilize CBFM benefits, making decision and enforcing forest rules.

5.2 (B) Did PFM policy achieve policy objectives, what influenced this?

-If not can you tell me about any challenges/ constraints you have faced during implementation of PFM programme?

Prompt questions

-Could you clarify further if there were not enough resources or problems with policy design, implementation, or resistance within government that brought constraints in the implementation of PFM policy?

End up question

-I think that's basically everything I had to ask you to talk about, have you got anything else you'd like to say or any kind of final thoughts or anything you'd like to follow up that I haven't asked you?

-Is there anything else you would like to ask me?

APPENDIX 32: SUMMARY OF RESULTS FOR RQ 4

Question	Quotations
What is the local institution in CBFM?	Local institution in CBFM is UFP which is a private company (DFM, Respondent 8).
	Local institution in CBFM is District Forest Officer (Senior staff from FBD, Respondent 2).
	All villagers are owners and managers of the CBFM (DFM, Respondent 25).
	Village land forest reserves is managed by Zonal Environmental Committee. ZEC is formed by chairpersons of all villages owning the forest. At village level there is a VEC and members in the committee are appointed by village leaders and approved by village assembly. Percentage of women in the committee should be 50% (DNRO, Respondent 17).
- Who puts local institution members in their positions? And for how long are they suppose to be in position	members are appointed by Village council and approved by village assembly (DFO, Respondent 8)
	I don't know how members of VEC assume position and to whom are they accountable (DFM, Respondent no 13)
	Election of VEC members is conducted after every 3years if not 5 years. Member in VEC should range from 9-12 most of the time and there is no specification in the policy about % of women and men that should be in VEC (PFM coordinator, Respondent 3).
	Members of VEC are elected by all villagers through village assembly and VEC should have 12-15 members (DFM, Respondent 25).

	It once members of VEC have been elected they are suppose to stay in their position for 1 year (DFM, Respondent 28).
	CBFM policy require women to be considered in the VEC. At least $\frac{1}{4}$ of VEC members should be women (DFM, Respondent 22).
	Members of VEC are elected by all villagers through village assembly and any villager can be a member of VEC, even Village chairperson can be a member of VEC . The VEC required members of VEC to be at least 12 and not more that 20 members, and $\frac{1}{3}$ of all VEC members should be women(DFM respondent 7).
	VEC required to have 14-15 members and 50% of the committee members should be women and no consideration of poorest individuals because all villagers have the same wealth status(DFO, Respondent 12).
	Percentages of women in the committee range from 40-50 but in some area this is not possible and committee may end up with 100% men. Due to the nature of the VEC responsibilities (DNRO, Respondent 1).
	VEC required to have at least 23 members and Village chairperson and Village executive secretary are included in VEC. $\frac{1}{4}$ of committee members must be female (DFO, Respondent 30).
	Members of VEC are appointed by village government and approved by village assembly and according to PFM policy the number of VEC members should range between 12-15. Members of VEC should stay on position for 3 years (DNRO, Respondent 20).

Can you tell me how marginalised groups are considered in the programme?	-We used to emphasize consideration of women in VEC but we are not considering poorest individuals in the CBFM, and during election of VEC members, poorest individuals are left behind since local communities do not trust poorest in taking care of their forest resources. Normally local communities prefer to elect people with more influence in the society, thinking that these people will help them to achieve the programme goals (Senior staff from FBD, Respondent 2).
	According to CBFM policy there is no specific percent or number of women that are suppose to be in VEC (DFM, respondent 25).
	Implementation of CBFM does not consider poorest individuals since its not among the critical elements/ criteria. What we consiorder is that every one needs to participate in forest management (DFM, respondent 25).
	I think members of VEC required to be 7 and at least ¼ should be women (DNRO, Respondent 29).
	I'm not sure about the number of VEC members but I think they are suppose to be 8-10. I'm not sure for how long local communities required to stay in their position, but I think may be 3 years, I don't know the percentage of women that should be in the committee (DNRO, Respondent 32).
	Members of the VEC should be at least 12. Members of VEC are appointed by Village government and approved by village assembly. Number of women should be ¼ of all VEC members (DNRO, Respondent 8).
Benefits sharing	Local communities required to take 80% of the forest revenue and pay 20% to the district council (DNRO, Respondent 17).

	Local communities required to take 95% of the forest revenue and 5% is paid to the district council (DFO, Respondent 9).
	Local communities required to take 90% of the forest revenue, 5% is paid to district councils and 5% is paid to Non Governmental Organisation for technical assistance (DNRO, Respondent 8).
	At first when we started implementing CBFM, the district council wanted to be given 5% of the revenue from sale of forest products, we wanted local communities to give us this small percentage to facilitate them to implement the approach and enhance the sense of revenue ownership. However, after the donor ended support for the approach in our district, the percentage increased and now local communities are supposed to share with the district council 25% of any CBFM revenue to facilitate forest experts to continue providing technical advice (DFO, Respondent 33).
- Would you give me an example on how local institution and local community were able e.g. to utilize CBFM benefits, making decision and enforcing forest rules. Prompt questions e.g Who formulate by laws, How did you considered building capacity to local institutions and local communities with regard to CBFM.	Provision of CBFM trainings depends on the availability of financial resources and normally we used to provide trainings to members of the village council and VEC (DNRO, Respondent 6).
	According to forest act, Village management and harvesting plan after being approved by the district council, the plan must also be approved by Director of Forestry and Beekeeping Division to the forest to recognised officially as CBFM (DFM, Respondent 25).

	I am not sure of who approve the by-laws of Village Land Forest Reserve. Because the forests were established long time ago (DFM, Respondent, 19).
	I have seen the Village land forest management plan but not the Village land forest by laws , so I don't know how VECs are enforcing the by-laws. I know the Director of Forestry and Beekeeping Division must approve the by-laws. VEC required to be accountable to District Forest Officer. (DFO, Respondent 21).
	Forest by laws are formulated by forest officials from District council and we just consult local communities to comments (DNRO, Respondent 20).
	I am not sure who approve the forest by laws but I know the by-laws are normally brought at the Councillor meeting for them to be known (DNRO, Respondent 29).
	Local communities are involved in by-laws approval but not involved in bylaws formulation (DNRO, Respondent 14).
	I think the forest will be officially known as the Village Land Forest Reserve once forest boundaries has well agreed and established (DNRO, Respondent 32).
	Local communities use 40% of the CBFM forest revenue for managerial cost, 40% for village development projects and 20% paid to district council for technical assistance when required. Most of the time we have been using the forest act to cases of larger illegal activities, since the fines in forest by laws for the Village Land Forest Reserves is very small when compared to destruction caused in the forest (DNRO, Respondent 26).
Did PFM policy achieve policy objectives, what influenced this?	The ideal of involving local communities in forest management was good, because government lacks

<p>-If not can you tell me about any challenges/ constraints you have faced during implementation of PFM programme?</p>	<p>human resources. However the local community instead of managing the forest sustainably, they overexploit, so what support are we receiving from them? That is why I feel that the ideal of Community Based Forest Management policy has failed (Senior staff from Forestry and Beekeeping Division, Respondent 1).</p>
	<p>Lack of legitimacy to VECs leaders affects CBFM implementation, since there some of the VECs leaders are not legitimate, and they just misuse the funds from Community Based Forest Management approach” (Director of Non Governmental Organization, Respondent 35).</p>
	<p>The implementation of Community Based Forest Management depends on donor/NGO support. Since there is no CBFM training that has been conducted to forest staff as well as local communities that are managing forests without donor or NGOs support. There is no sustainable CBFM trainings to implementers due to lack of financial resources (Senior staff from Forestry and Beekeeping Division, Respondent 1).</p>
	<p>“Yes it’s true that VECs are volunteering in CBFM policy implementation, but these individuals have families that depend on them, sometimes they conduct patrol the whole day without being given any allowances because there is no financial resources allocated to facilitate them, this affects their commitments to the approach implementation (DFM, Respondent, 25).</p>
	<p>I’m not happy with the Tanzania Forest Service organisation structure, because for them to be at district level has been a challenge to district councils, as they are more about revenue collection and not conservation (DNRO, Respondent 26).</p>

	<p>There is lack of financial resources to implement PFM approach; this has been contributed by lack of political will to PFM from most of the leaders. Since where there is a political will financial constraints cannot be a big issue, as political leaders may be committed and give priority to the forest sector by setting aside budget that will enhance the implementation of the CBFM approach (Officer from Forestry and Beekeeping Division, Respondent 3).</p>
	<p>I am a village leader but I have never been given any training about CBFM. This has affected my capacity as well as power to implement the CBFM policy (Village Executive secretary, Respondent 37).</p>
	<p>The constraints to implement CBFM is lack of financial resources, there is no budget for example at national level that has been set aside for CBFM. My responsibility is to ensure that all implementing agencies and private sectors adhere to CBFM standards, but due to financial constraints at national level, I have been facilitated by NGOs in term of allowances and accommodation during inspection, this contributes to difficulties in achieving my responsibilities (officer from forestry and Beekeeping Division, Respondent 2).</p>
	<p>The big challenge that affect CBFM policy implementation is lack of financial resources. Our government has no financial capacity to implement the approach, hence this makes the approach implementation to depend on donor support, therefore when the donor projects are phased out and the approach implementation is also phased out. Most of the forests under CBFM arrangements, have not updated/reviewed their forest management plan for a long time. The forest sector is not given priority even the percent of money that is accrued from CBFM that local communities share with the district council are</p>

	reallocated to priority sectors other than forest (DFO, Respondent 33).
	The big challenge that affect CBFM policy implementation is that our government has no capacity to implement the approach in term of financial and physical resources, hence this makes the approach implementation to depend on donor and NGOs support, therefore phasing out of donor / NGOs projects go together with the CBFM implementation (DFO, Respondent 9).
	Lack of financial resources undermine the implementation of CBFM, since most of the forests under CBFM are managed with outdated management plan for a long time, this affects sustainability as well as the successful implementation of CBFM (DNRO, Respondent 20).
	Facilitation of local community in CBFM implementation in term of giving technical support is not among my job description, so I see this is not my responsibility (DFM, Respondent 13).
	Most of Village Executive Officers lack CBFM policy capacity, this affects the CBFM policy implementation, because they want to be overall manager of forest resources at village level without knowing that there is Village Environmental Committee that has been empowered at village level to manage the forest hence this contributed to power struggles and affects the CBFM policy implementation. Village Leaders have not received any CBFM training since they have been in position except in a few areas where there is donor or NGOs support. Sometimes Village Executive Officers after being trained they are transferred to villages with no CBFM approach and that village implementing CBFM policy gets another

	Village Executive Officer who lacks CBFM policy knowledge, this has been a big challenge affecting CBFM policy implementation (DFO, Respondent 24).
	Lack of CBFM Knowledge to Village Leaders affect the effective implementation of CBFM. Because no training that has been provided to village leaders in area that implement CBFM without NGOS/donor support (DFM, Respondent 25).
	Community Based Forest Management policy states clearly that DFOs and DFMs will facilitate local communities in CBFM establishment, but in reality it has been difficult for forest staff to facilitate local communities in CBFM implementation. The government left the facilitation and support role to donors and Non-Governmental Organisations. DFOs and DFMs are thinking that once they facilitate the local communities to establish forests under CBFM, this will result into government losing some forest revenue in forests with CBFM arrangement. Hence, this contributes to difficulties in implementing the PFM (Director from a Non-Governmental Organisation, Respondent 35).
	Tanzania Forest Service has been empowered to implement all forests but why we do not see them supporting the districts to implement Community Based Forest Management policy? (DNRO, Respondent, 14).
	Many of the district councils lack human resources, for example in our district, I am just one forest officer with a diploma in forestry and we have 32 forests under Community Based Forest Management arrangements. It has been difficult for me to provide technical support to all villages implementing the approach (DFO, Respondent, 24).

	<p>The other challenge in our district is a shortage of personnel, for example in this district I am the only forest officer with diploma in forestry, and we have more than 63 villages implementing Community Based Forest Management approach, this affect the approach implementation (DFO, Respondent 18).</p>
	<p>For sure, we have shortage of forest staff, here we have only 3 staff and the districts have 133 villages and 28 wards, so it has been difficult for only 3 staff to work effectively in each village (DNRO, Respondent 32).</p>
	<p>We have never been involved in any VEC election, we normally see men involved but we women we had never been given such opportunity (Focus Group Discussion with Women, FGD 5).</p>
	<p>We are not involved and we had never given information to attend village assembly about VEC election; as well as we are not even aware of whether we are supposed to be represented in the Committee as marginalised group. We used to see ZEC leaders appointing individuals who are well connected to them to be members of VEC, individuals who are not well connected with ZEC leaders had never been given an opportunity (Focus Group Discussion with poorest individuals, FGD 3).</p>
	<p>This is my second time to be a member of VEC, but I have seen there is discrimination from committee leaders to other members in term of who should be given PFM trainings. Due to this situation trainings that are specifically for VEC members has been given to non- VEC members who are well connected to Zonal Environmental Committee leaders (Focus Group Discussion with VEC members, FGD 1).</p>

	As members of the VEC, we have never been involved even had information on the harvest that is going on in SULEDO VLFR, but the forest continue to be harvested (Focus Group Discussion with VEC members, FGD 1).
	Civil servant from Forest and Beekeeping Division reported that REDD+ is an obstacle to PFM 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 individual to access REDD+. REDD+ is only name but all the principles based on sustainable forest management. Nevertheless, the mechanism of REDD+ has a lot of bureaucracy and does not show incentive to make sure that Community Based Forest Management policy succeed. It create frustration to facilitators in promoting the ideal of Community Based Forest Management policy. Complex of REDD+ as a mechanism to promote PFM is not workable. It create over expectation to local community without fulfilling them, hence frustration to local communities (Officer from Forestry and Beekeeping Division, Respondent 4).
	Forest policy lack compensation of any destruction caused by the government to natural forests. Due to this weakness in the policy individuals at village level national wide are influenced to clear natural forests and plant exotic trees or use the area for crop production so that to be compensated later when anything happen, so this inhibit the implementation of Community Based Forest Management policy (Senior officer from Tanzania Forest Conservation Group, Respondent 35).
	There is a lack of financial resources to implement PFM approach; this has been contributed by lack of political

	<p>will to PFM from most of the leaders. Since where there is a political will financial constraints cannot be a big issue, as political leaders may be committed and give priority to the PFM by setting aside budget that will enhance the implementation of the CBFM approach (Officer from Forestry and Beekeeping Division, Respondent 3).</p>
	<p>I am not happy with the Tanzania Forest Service organisation structure, because for them to be at district level has been a challenge to district councils as well as to local communities managing forests under PFM. Since they are focusing more on revenue collection and not conservation (District Natural Resources Officer, Respondent 26).</p>