

PAY BACK ANTICIPATION: A DRIVING FORCE IN COMMUNITIES PARTICIPATION IN FOREST MANAGEMENT

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Abstract

Participatory Forest Management (PFM) is recognized as a more feasible approach to sustainable management of forests as it has a focus on livelihood improvement and forest conservation through the participation of local communities. Decentralization of forest management in Kenya has been effected through Community Forest Associations (CFAs) which are used as entry points for management activities within prescribed forest area or jurisdiction.

Data was collected in Mau and Kakamega forests using IFRI /SANREM (www.umich.edu/~ifri) methods (tools) to analyze economic and ecological factors influencing community participation in management. Results indicate that the following CFAs, Londiani Community Forest Association (LOCOFA) in Mau- Londiani, Muileshi in Kakamega, Mukogodo in Laikipia and Ramogi in Bondo, show high dependence on forests. Results also show that payback/remuneration gained from the forests has a significant correlation with community participation. The participation of communities in forest management is limited to protection activities but with little elements of other silvicultural practices. The low level of participation by communities in forest activities has lowered their anticipation of returns from the resource. This in return makes members lose their sense of ownership and responsibility resulting into reduced participation.

The research concludes that value addition to forest products; marketing and incentives by the government that are directly beneficial to communities could strengthen the CFA's and contribute towards improving their participation in forest management.

Key words: Community participation, pay back, marketing.

1. Introduction

Forests make up about 30% of the global total land area which sums up to almost 40 million km². (Nadkarni, 2005). Forests in Kenya cover a total area of 37.6 million hectares out of which 2.1 million hectares are woodlands, 24.8 million are bush land and 10.7 million are wooded grasslands. Only 1.7 million hectares of the total forest cover are gazetted and managed by the Kenya Forest Service. A total of 9.4 million hectares of a variety of tree coverage exists on farmlands, settlement areas and urban centers. (Mathu, 2007)

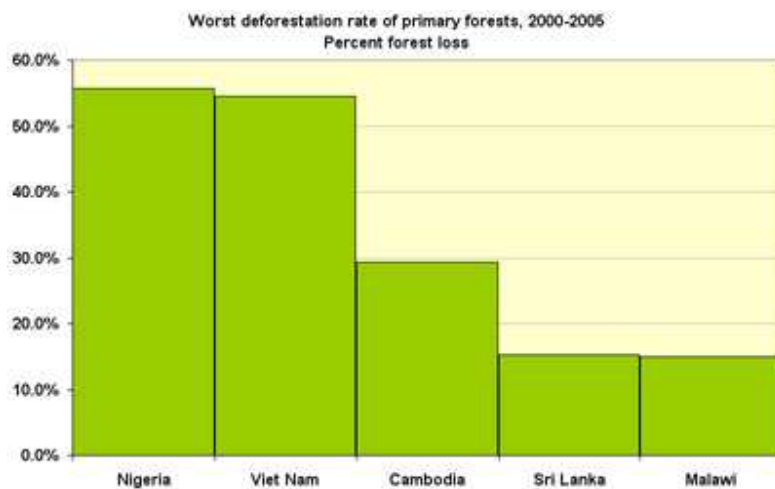
Over the years, there has been widespread degradation and deforestation which has reduced the forest cover. History shows that human beings have most often considered the forest as a space that must be cleared to pave way for other development activities such as farming (Lanley, 2003). The world conservation lobby acknowledges that rates

of global forest loss are excessive and recognizes the need for greater attempts to reduce that loss (Rodgers, 1997).

During the period 1990-2000, forest area decreased worldwide by 0.22% annually and 0.18% every year between 2000 and 2005. According to FAO (2005), some 13 million hectares of the world's forests are still lost each year, including six million hectares of primary forests².

Africa suffered the second largest net loss in forest after South America with 4.0 million hectares cleared annually. South America is reported to have lost 4.3 million hectares annually between 2000 and 2005. Nigeria and Sudan were the two largest losers of natural forest during the 2000-2005 period, largely due to subsistence activities. According to the figure below Nigeria has the highest deforestation rate at 11.1%, if not addressed it could lose virtually all of its primary forests within a few years. Vietnam lost a staggering 51% of its primary forests between 2000 and 2005, while Cambodia lost 29% of its primary forests between 2000 and 2005. Malawi and Sri Lanka have the world's fourth highest deforestation rate after Nigeria, Viet Nam and Cambodia. (Butler, 2006)

Fig 1: World's deforestation rate of primary forests 2000-2005



(Butler, 2006)

Most of the world forestry organizations recognize the current loss of forest as a significant problem (Tarasofsky, 1995). This problem is expressed in terms of loss of natural resources, in loss of ecological function (for example carbon sequestration and hydrological function) and biodiversity.

² Primary forest refers to untouched, pristine forest that exists in its original condition. This forest has been relatively unaffected by human activities.

It is estimated that Kenya lost 5% of its forest cover between 1990 and 2005. Deforestation rates in Kenya have however decreased slightly since 1990. A total of 186,000 ha of forest land in Kenya have been lost since then (FAO, 2005). It is projected, that charcoal related offences (illegal burning, transportation) make up about 50% of forest clearance illegal logging 15% and others illegal activities such as unlicensed grazing, illegal cultivation, forest fires and illegal hunting make up 35% of the destruction facing the forests in Kenya (Mathu, 2007). The forest cover in Kenya has therefore reduced to 1.7% of the total land area. This dwindling forest cover has a severe effect on the climate, wildlife, streams and human population.

Nevertheless most degraded natural forests retain structural characteristics of their former primary nature and can regenerate naturally or with some interventions. This process can be long in coming but over a period of time with cooperation from all sectors the forest would recoup its previously closed canopy form. It is for this reason that community members should be at the fore front in ensuring the closed canopy nature that once existed in natural forests is regained.

1.1 Forest Management in Kenya

Management of natural forests in Kenya was initially left in the hands of the government. Even though community members had a stake in the forest resources, they were not adequately involved in its management. It was later realized that the centralized system was not effective and communities needed to be involved in effective management of forests (Mbuvi et al, 2009).

There was therefore a move to develop a new forest policy and law that started with the preamble of the Tropical Forests Action Plans that led to many countries developing new strategies to improve forestry governance and hence reduce forest degradation especially in the tropics (GOK 1992). Kenya's first forest policy was formulated in 1957 and revised in 1968 (sessional paper no.1). This policy focused on conservation and management of forest resources on government land. Its main weakness however was that it did not adequately recognize or reflect the role, rights or responsibility of communities adjacent to or living in the forest (Mathu 2007). As a result it did not adequately address the problem of massive forest degradation. Kenya therefore developed another strategic plan for forestry development in 1994 (GOK 1994). The plan recommended various management strategies including the development of a new policy and law that would make forestry governance all inclusive and not a preserve of the Government. However it took ten years before it was put in place and a further three years before the Forest Act came into being (GOK, 2007: Walubengo, 2007). The new policy was released in 2005 and the new legislation came into effect in 2007.

The new policy recognized the need of involving communities in forest management as co-workers alongside the government and other stakeholders. It contained a clear framework and incentive for communities and private sector participation in management of forests. The goal of the Forest Policy 2005 was to 'enhance the contribution of the forest sector in the provision of economic, social and environmental goods and service. This new policy therefore led to the introduction of the Participatory Forest Management (PFM).

1.2 Participatory Forest Management

Participatory Forest Management (PFM) heralded new thinking in the forestry sector; local communities would be involved in the management of forests through community forestry, participatory forestry and joint forestry. Its main aim was to devolve forest governance to the local levels. If well implemented, through the new policy it was likely to benefit local communities and other stakeholders. (Ongugo et al, 2008). For instance the act proposed the following measures to enhance community participation in forest conservation: 1. encouraging sustainable use of forest resources 2. supporting the establishment of community forests associations through which communities can be able to participate in the conservation and management of forests and 3. protecting the traditional interests of local communities customarily resident within and around forests.

PFM was introduced as a result of pressure from forest adjacent communities and civil society organizations led by research scientists who had been working on alternative approaches to reduce forest destruction. This was at a time when there was massive forest encroachment by the community members leading to destruction of the forest sector at such a high rate. Participation of the locals therefore became a prerequisite for sustainable forest management. This was mainly due to the benefits accruing from the management approach that had been employed in Nepal and India (Ghate 2004). The alternative approaches were to be a major departure from the government-centered approach that basically targeted the production of industrial wood as opposed to provision of forest goods and services for the benefit of local communities. These people depend on the forests to meet their livelihood needs such as fuel wood, construction poles, fodder, medicinal plants and fruits (Ghate 2004).

The initiatives for change had been necessitated partly by the need to stop the escalating destruction of natural and plantation forests that had been increasing under the old forest policy and law; and partly the need to open devolve governance to accommodate local communities and other stakeholders to take part in forest governance. A major reason presented for the increase in forest destruction was lack of community involvement in the management of the country's forest resources especially people who lived adjacent to them in the perception that the forests belonged to the government. Due to demands from local communities, the government succumbed to their pressure and allowed local communities and civil society organizations to try alternative management approach.

Participatory forest management recognized the role of communities in the management of the country's forest resources and encouraged their involvement as co-managers of the forests. Mbuvi et al (2009) states that the emerging PFM system is where the state through Kenya Forestry Service (KFS) and communities are both involved in the development of forest management guidelines and agreements.

The government's main objective for starting PFM was to promote the participation of the private sector, communities and other stakeholders in the forest management to conserve water catchments areas, create employment, reduce poverty and ensure the sustainability of the forest sector. Participation Forestry Management (PFM) has been

adopted widely in many developing countries as an alternative method of managing forestry resources (Wily, 2002).

1.3 Community Forest Associations

Community Forest Associations (CFA) created an entry points for individuals within the community to undertake in forest management. Article IV, Section 46 (1) of the Kenya law states that communities that are the users of certain particular forests can be involved in the management of such forests by forming CFAs. All important forest regions in Kenya have therefore over the years formed CFAs in which community members are urged to join so as to ensure their issues are articulated and they have a say in the management of the forest. CFA are considered as second level community based organizations formed by several community based organizations with stakes in particular converging forests. The CFAs are expected to converge and form what is referred to in the country as national organizations that can also grow to become Non-governmental organizations capable of raising funds either locally or even outside the country (Ongugo,2007).

Most CFAs have not attained their goals due to many challenges that they face. Some of these challenges include benefit sharing , transparency among leaders, some members refusing to contribute the given mandatory fee, conflict of interest to dictatorial tendencies. Community members are motivated to join CFAs owing to the tangible benefits they hope to get from such involvements. However if the benefit sharing is not transparent or is not equal members tend to shy away from such associations as they do not have a motivating factor that binds them to that group.

The new approach in forest management has no uniformity on how the communities participate but varies from situation to situation dependent on the user groups. This paper discusses the situation in Kenya and specifically looks at the Community Forest Associations in Londiani, Kakamega, Mukogodo and Ramogi.

1.3.1 Londiani Community Forest Association

Londiani Community Forest Association (LOCOFA) is found in Londiani. It was formed in 2007 with the main objective of lessening the work of the forester and to come up with projects to guarantee development among the members even as they ensure forest conservation. Community members were motivated to join owing to the laid down development plans and clearly stipulated objectives. Some of the activities done within the CFA include; bee keeping from which products such as honey are marketed and sold, sensitizing the community on issues regarding forest conservation, establishment of tree nurseries, ecotourism and PELIS (Plantation Establishment and Livelihood Improvement Schemes) from which members would have the chance to graze and prune for free. Members are also involved in writing good project proposals with the hope of getting donors to support their ideas. Members are challenged to come up with ideas to better their chances in development both at a community and personal level.

The CFA has recorded remarkable tendencies in ways of benefit sharing and transparency in its organization ensuring full participation and commitment from its members.

1.3.2 Muileshi Community Forest Association

Muileshi CFA is found Kakamega district. The CFA was formed in 2005 and registered in 2009. Some of the activities the CFA is involved in include; tree planting, nursery establishment, bee keeping, provision of health related services in a local VCT clinic, assisting in forest policing and training other community members on nursery management. The CFA earns its source of income from selling different tree species available in their tree nurseries. It has also established a snake park and gift shop. The CFA has strategically marketed its products from the forest which are available in local stores. Members are also involved in writing proposals with the main aim of sourcing for funds to support their different development projects.

The CFA however faces major challenges. Members are motivated to join and support the CFA due to the well organized system of management that ensures benefits trickle down to them in equal measures depending on one's involvement.

1.3.3 Mukogodo Community Forest Association

Mukogodo CFA is found in Laikipia district. The CFA has managed to allure community members into joining it owing to remarkable success it has achieved overtime. The CFA is involved in many activities from which members benefit. Some of these activities include tree planting, nursery establishment, educating members on the importance of natural resource conservation and ecotourism. Members benefit from selling seedlings as well as from the proceeds of tourist lodges and safaris which have improved livelihoods.

1.3.4 Ramogi Community Forest Association

Ramogi CFA is found in Bondo district. Community members living adjacent to the forest are not motivated to join owing to the fact that there has been no proper system in place to practice PFM therefore there are no tangible benefits members get from their involvement to the group. Greed within the leaders ensures that nothing trickles down to the members at the grass root. This discourages members forcing them to pull out of the group that was initially formed with the aim of improving their life standard even as it seeks to sustain the forest.

Since its formation the CFA has not been registered. In order for the CFA to survive there is need to strengthen the principle of benefit sharing. Members need to be involved in decision making as well as coming up with goals that must be achieved within a definite period of time.

1.4 Study Objectives

The study was set to achieve the following objectives.

- To find out the underlying factors affecting community participation in forest management;
- To investigate the challenges faced in benefit sharing; and,
- To find out the role of the other stakeholders in ensuring equity in benefit sharing.

1.5 Justification of the study

It is widely assumed that all community members would be interested in joining CFAs. Community members can be considered as primary stakeholders in the management of the forest because they use the forest on a day to day basis. However in order to attract members in to management of natural resources it is important that their subsistence needs are met and they are fully represented in any decision making forum that would affect the forest. Benefit sharing must also be in proportion to the labor contribution from an individual towards forest conservation and management. There should be transparency on how the management of the forest is run.

The study attempts to understand if benefits expectation serves as a driving force towards communities' participation in such groups and whether equity in benefit sharing should be addressed for the success of any CFA. Ensuring equity would entail fair distribution of resources, decision making, rights, opportunities and wealth among people overtime.

2. Methodology

The unit of analysis in this study was community members living adjacent to forests and their participation in CFAs. These CFAs include Mukogodo in Laikipia, Muileshi in Kakamega, LOCOFA in Mau-Londiani and Ramogi in Bondo. The study involved the use of both participatory rural appraisal (PRA) and rapid rural appraisal (RRA) methods. PRA methods involved the use of questionnaires, semi-structured interviews and focused group discussions in which key informants such as village elders and community members living adjacent to the forest were involved in collecting specialized knowledge on factors that motivate individuals to participate in management of the forest. Household representatives were randomly selected for personal interviews.

RRA methods were also used in which communal meetings were held at the chief's barazas³ with the main aim of obtaining a general perspective on the community's participation in the management of the forest they are adjacent to. Participant observation was also done to understand the communities' involvement in the management of natural resources.

Different IFRI forms were used to collect data on the site, the settlement, user groups, products extracted from the forest and associations formed by community members living adjacent to the forest.

³ Baraza is a place where public meetings are held.

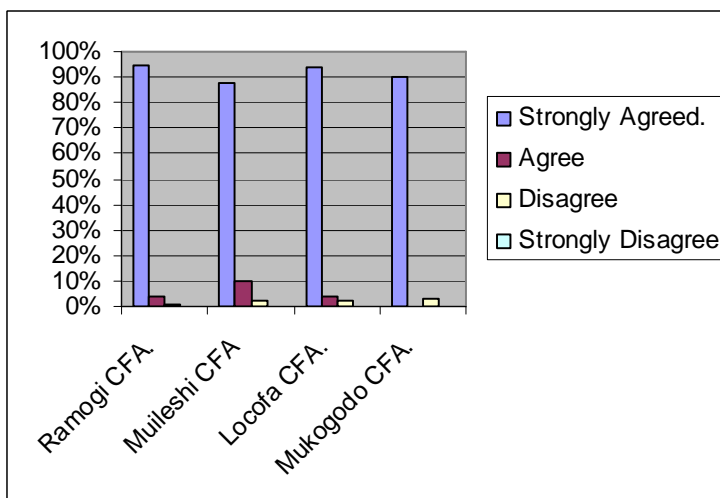
3 Results and Discussions

3.1 Factors affecting communities' participation in forest management

From the study it was clear that three factors attracted communities to participate in forest management.

3.1.1 Community perception on forest management

Fig 2. Perception on forest management



Participants were asked to select a response ranging from strongly agree to strongly disagree on whether or not they were motivated to participate owing to the benefits they perceived they would receive from their participation in forest conservation. Fig 2 above presents the participants response from all the four CFAs under study. From the figure above it was evident that a greater majority of community members from all four CFAs strongly agreed to fully participate in a CFA that they perceived would offer them benefits for their contribution. Members showed high commitment to any CFA if the benefit they perceived they would accrue from their membership is directly proportional to the amount of labor they would offer to the group.

3.1.2 Communities' expectation from participating in CFAs

The study analyzed data collected from four CFAs. A total of 25 households from each CFA participated in the study. This involved an approximation of 100 individuals. Majority of the respondents from all CFAs studied were female farmers. Table 1 gives different products that communities from different CFAs extract from the forest.

Table 1; Products extracted from the forest

CFAs	Mukogodo	Ramogi	LOCOFA	Muileshi
Products Extracted	Firewood, Cultural visits, eco-tourism, seedlings ,	Firewood, herbs, honey, cultural and religious visits.	Firewood, honey, herbs, poles and posts.	Firewood, fodder, herbs, honey.

According to table 1 above, each CFA benefited from the forest through extraction of different forest products. This reveals that each CFA had much benefit to offer to its members.

Participants were required to select a response ranging from high expectation to least expectation on what they expected from their involvement in CFAs.

Table 2: Community members' expectation from the CFA

Expectation from CFAs	Mukogodo	Ramogi	LOCOFA	Muileshi
External Assistance in achieving CFA's objectives.	High Expectation	High Expectation	High Expectation	High Expectation
Transparency at the management level.	High Expectation	High Expectation	High Expectation	High Expectation
Benefits from their participation.	High Expectation	High Expectation	High Expectation	High Expectation
Equity in benefit sharing	High Expectation	High Expectation	High Expectation	High Expectation

From the table above community members' revealed high expectation while joining CFAs. Majority of CFA members expected external assistance in achieving their laid down goals and objectives. In Kenya the government has tried to provide CFAs a

variety of projects such as PELIS (Plantation Establishment and Livelihood Improvement Schemes) as well as offering them funds to achieve their goals. Many CFAs have also benefited from other forest stakeholders such as National Museum of Kenya (NMK), Kenya Wildlife Service (KWS), NGOs and Kenya Forestry Research Institute (KEFRI) that have committed themselves to supporting them thus ensuring forest conservation.

It was also apparent that participants expected transparency at the management level assuring them that sharing of benefits would be equal and on a fair ground.

3.1.3 Communities' involvement in all aspects of forest conservation

Community participation covers four aspects. These include planning, implementation, monitoring and evaluation. It is important to involve the community at all these four steps so as to create a sense of ownership and commitment among the members. Participants were asked to rate their involvement in all the above stages rating from great participation to very limited participation. The table below gives a brief summary of the participants' response.

Table 3; Participation in forest conservation

CFAs	Planning	Implementation	Monitoring	Benefiting
Mukogodo	Great Participation	Great Participation	Great Participation	Great Participation
Ramogi	Very Limited Participation	Limited Participation	Very Limited Participation	Very Limited Participation
LOCOFA	Great Participation	Great Participation	Limited Participation	Great Participation.
Muileshi	Great Participation	Great Participation	Limited Participation	Great Participation

From table 3 above it was noticeable that there was remarkable success in LOCOFA, Muileshi and Mukogodo CFAs. Members were involved at the planning stage which involved decision making and attendance to meetings. At the Implementation stage members were involved in all the CFAs activities. Members contributed in monitoring of CFAs activities which involved follow ups and enforcements of rules and regulations. This resulted to equal sharing of benefits that accrued from their participation.

However in Ramogi CFA this was not the case. Members were least involved at all stages. This was mostly due to the many challenges the CFA faced such as conflict of interest and lack of transparency at the management level.

3.2 Challenges faced in Benefit sharing

Community members were requested to mention some of the challenges they faced as members of Community Forest Associations. The table below highlights some of the major challenges members pointed out.

Table 4. Challenges members face in each CFA

CFAs	Mukogodo	Ramogi	LOCOFA	Muileshi
Challenges faced.	High expectation from members, difference in ideology, external influence, financial management	Conflicts of interest, leadership wrangles, lack of transparency on benefits accrued, differences in ideology, mismanagement of funds.	Lack of finances, conflicts of interest, mismanagement of funds.	Lack of funds, conflicts in ideology, lack of transparency, high expectation from members, mismanagement of funds.

Table 4 above revealed some of the major challenges members pointed out from their participation in forest conservation. Transparency in benefit sharing was considered as one of the major problems faced especially in Ramogi CFA. Members argued that greed and wrangles caused by ideological differences that existed among the leaders was a major cause for this setback. This prevented benefits from trickling down to the community members at the grass root.

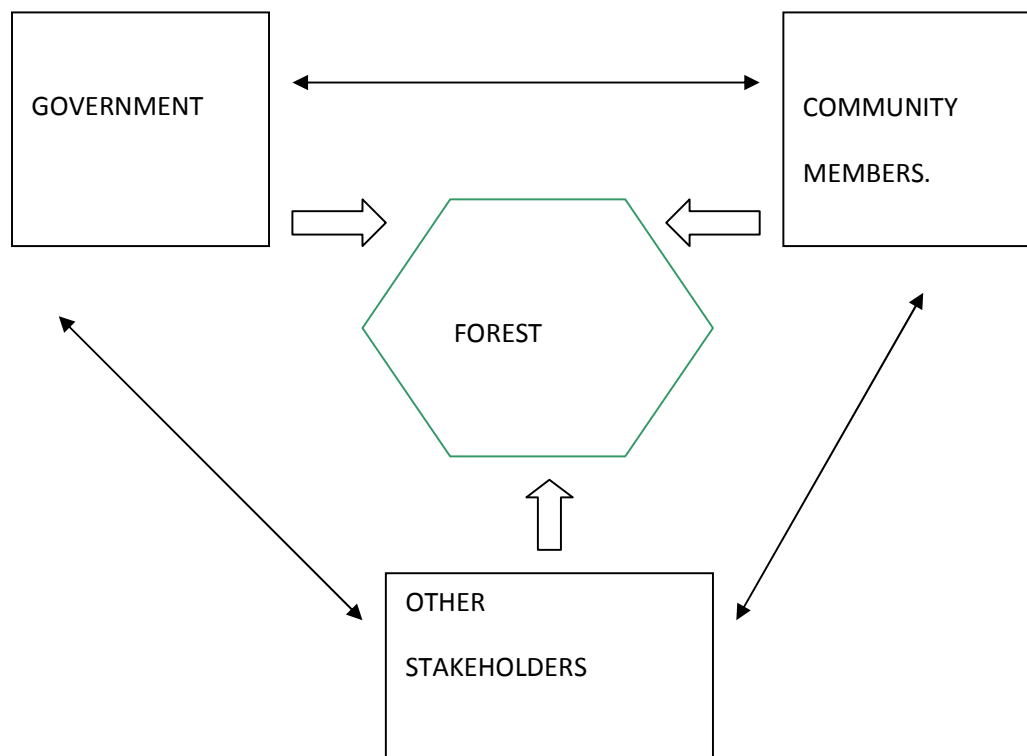
The success of any CFA nevertheless largely depends on good leadership and transparency at the management level.

3.5 Role of other Stakeholders in ensuring equity in benefit sharing

The study revealed the need to strengthen relationships that exists between stakeholders so as to ensure there is a clear level of governance and good corporation in all sectors.

The figure below represents a perfect relationship that should exist between stakeholders whose main interest is in the sustainability of the forest. This can only be achieved if there is enhanced cooperation between the stakeholders that would attract community members into forest conservation practices.

Fig 3: Relationship between different stakeholders to the forest



4 Conclusions and Recommendation

Community participation is still a very new practice among community members and it therefore requires a lot of nurturing. There is need to empower community members through training thus giving them the guidelines in forest conservation as well as financial management which seems to be a major challenge in most CFAs.

CFAs should urge their members to think beyond the normal forestry activities such as bee keeping and get involved in Clean Development Mechanism (CDM) which assures them of many tangible benefits.

Issues of equity and poverty have not been satisfactorily addressed consequently limiting people's participation in management of forest. (Timsina and Lintel, 2003). CFAs can succeed if such issues are addressed and community members' participation appreciated.

From the study, there should be clearly laid down levels of governance that each stakeholder knows the role they play towards conservation of the forest. This would minimize conflicts between and among stakeholders as well as provide clear guidance

to forest associations therefore enticing more members into participating in such groups. Creation of order would also enhance transparency thus ensuring there is no alibi why community members at the grass root should not benefit from there participation. Where co-operation is strong, tangible benefits trickle down to each member.

There is need to also generate proper networks that would ensure different stakeholders can easily reach each other and discuss matters affecting them. This would make certain that information is easily shared therefore providing equal chances for different stakeholders to get involved in safeguarding the forest. Benefit sharing will also be transparent therefore luring more members into participation.

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