

# Analysis of Institutional Inducement in Collaborative Forest Management: A Case Study from Masindi District, Uganda

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**Abstract** Starting from the pre-colonial, colonial and up until present, government of Uganda has been devising different forest management approaches in order to promote sustainable management of the resource. Collaborative Forest Management (CFM) is a form of participatory forest management approach which has been recently implemented in Uganda. Since the start of its implementation, there have been polarized arguments concerning the contribution of this approach towards sustainable forest management. This study was conducted to examine CFM based institutional inducements comparing with the conventional state based forest management approach within Budongo forest reserve, Masindi district of North-western Uganda. Both survey and qualitative data collection methods were employed to collect data for this research. Given the current prevailing situation in the study area, the study found out that CFM has been relatively favored both from socio-economic and Ecological perspectives mainly because of its institutional innovations.

**Keywords** Collaborative Forest Management, Institutions, Participatory Forest Management

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## 1. Introduction

### 1.1. Thematic Background

Recognition of the role of forest in economy, ecology and environment is momentarily increasingly from time to time. Forests are source of income, food and energy in most developing countries, provides enumerable functions in reducing desertification and climate change, and is among the prime sources in hosting biodiversities. However, enough to its multifaceted roles, deforestation and forest degradation is skyrocketing in different parts of the world. To effectively realize the potential benefit of forest resources at micro, national and global level, there is unquestionably the need for the right policy, and the right institution. It is only through the right institutions<sup>1</sup> that natural resource policies in general and forest management plans in particular are properly implemented. Institutions provide a basis for coordinated actions of the society towards the desired goals.

In the state-alone forest management approach, which is

It also shapes human behavior towards the sustainable management of the forest as it provides an incentive for the change in behavior[9]. This is one of the motives for which participatory forest management approach took the front stage right at the failure of top-down or policing approach. based on the linear command from the center to periphery, it is evident from most third world countries that the rate of deforestation has increased. With the failure of exclusion approach, the more inclusive approach emerged as the best mechanism in the area of forest and other resource management. This is due to the belief that the success of forest management is highly dependent on the level and forms of community participation[9]. Therefore, the shift from this command and control forest management approach to more participatory approach is considered as a positive development in forest management[1].

In the contemporary era which favors community participation in forest management, the level and forms of stakeholders' participation, and institutional arrangements varies across participatory forest management (PFM) approaches. Although total community control is advocated by the pro-community popularists, multi-stakeholder approach which is the essence of CFM is believed to be reasonably important in the management of forest resources. Among various participatory forest management arrangements in Uganda, CFM is one in which the state, local people and other development partners make cooperation at the level of partnership to manage the central forest reserves. CFM is a new type of participatory forest

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<sup>1</sup> *Are the rules, regulations that determine the dos and don'ts of stakeholders and strategy that create incentives for the behavior of actors in forest management. Is formally described in the form of a law, policy, or procedure, or they may emerge informally as norms, standard operating practices, or habits (Gibson et al 2005).*

management approach in Uganda and formally introduced in 2005 in the study area. The approach aimed to promote sustainable forest management and livelihood improvement through multi-stakeholder involvement in the management.

Studies are polarized in both streams (in-favor and against) as to the success of the new forest management approach. In Uganda, With-in Budongo forest reserve, Otieno and Buyinza (2010), reported that deforestation and forest degradation have reduced, forest restoration has improved, and income for the local people has increased as a result of introduction of the CFM approach. However, Kunga[11], basing on Mpanga forest reserve in Uganda, reported a different perspective in which CFM approach seldom attained its original objectives. In order to make improvements and adjustments in CFM, identifying the success and failure factors are crucial. Like other forest management approaches, the success of CFM depends on biophysical, community attributes and institutional factors of which institutional factors are the most decisive factor shaping the others. While this paper presents the institutional attributes of CFM, the remaining aspects will be addressed on other subsequent papers. Specifically, this paper elaborates on the institutional factors that are considered to be the reason in success of CFM.

## 1.2. Overviews and Essence of Collaborative Forest Management

### 1.2.1. Overview of Collaborative Forest Management

CFM is an approach in which different stakeholders work together to manage a given forest (central reserve, or communal forest,) at a given time. Carter and Gronow[4] defined CFM as a working partnership between stakeholders' for the management of a given forest. Similarly, (Gombya and Banana, (no date); Kunga, 2002[11]; Kelbessa and De Stoop, 2007[12]; Otieno and Buyinza, 2010[19]) defined CFM as the management partnership agreement between the responsible body and the local people for the management of previously state reserve forest.

### 1.2.2. Differences between CFM and other PFM Approaches

In principle, the concept of CFM is to some extent different from the other participatory forest management arrangements. In CFM approach, the stakeholders form a partnership where the memorandum of understanding are signed between the parties and roles and responsibilities are shared among the involved actors. It is centered on level of partnership while most PFM are based on the notion of participation with varying degrees of local peoples' involvement. The main difference between partnership and participation is that the former is more inclusive and involving than the classes of the latter approach[4]. CFM is concerned with the type of partnership in which "equitable partnerships, drawing upon the complementary strengths of forest departments and local users' in the co-management of forest resources"[4]. In Equitable partnerships, each partner will share responsibilities and benefits of forest management

which is adhered by clearly set agreements and proper reverence to each other's rights and entitlements (Berkes, 1997[3] quoted by Carter and Gronow, 2005[4]). Fischer, (1995)[7] and Arnold, (1993)[2] used the concept of CFM analogous with the Joint Forest Management (JSM) concept. However, according to Carter and Gronow[4], while CFM is formed either on central forest reserve or community forests, JSM is restricted on local people's participation in the management of central forest reserve. In Ugandan context of CFM and JFM, the former denotes a partnership between Uganda National Forest Authority (NFA), local people and other partners, while the latter is a joint formed between the lead agencies and the local people with or without recognition of other partners[5].

## 2. Research Methodology

### 2.1. Description of the Study Area

Masindi district is one of the districts which are found at the north western parts of Uganda. It is bordered by Gulu in the North, Kiboga in the South and Apac in the East and Democratic Republic of Congo in the West. It is also bordered by Nakasongola in the South-East and Hoima in South -West. The annual average temperature of the district is 25°C and the average annual rain fall of 1304mm. The district is divided into three major climatic (rainfall) zones: high rainfall (>1000mm), medium rainfall (800-1000mm) and low rainfall (<800mm). The total population of the district is estimated to be 469,865 with almost equal share of males and females (50.1% males and 49.9% females) respectively[15]. Budongo Forest Reserve (BFR) is located in the kingdom of Bunyoro<sup>2</sup>, western part of Uganda, within the district of Masindi and Hoima. The largest part of the forest is found in the former district.

### 2.2. Sampling and Data Collection Methods

A multi stage sampling procedure was employed for the selection of respondents for survey. The first stage involved purposive selection of Kapeka community from the rest of communities adjacent to Budongo forest reserve based on accessibility and relevancy of the site for the study at hand. Following its administration unit, respondents were stratified in to members and non-members of CFM in the three administrative units of Kapeka village. From the stratified units, a total of 200 respondents were proportionally selected by using systematic random sampling method. The selection of the discussants for Focus Group Discussion, and interviewee for Key Informant Interviews were made purposively to get necessary, timely and accurate information from those who have firsthand knowledge and experience in the area. Accordingly, thirty discussants and thirty interviewees were selected by considering group composition and participant characteristics.

<sup>2</sup> Bunyoro is the name of a kingdom or tribe who populated in the Budongo forest reserve from the beginning.

The study employed various data collection methods and data were gathered from various sources. First, focus group discussions were held in order to have an in-depth understanding of the subject. It was followed by Transects, Key Informant Interviews, Trend analysis, group discussions, personal observations and formal questionnaire. In order to ensure the validity and reliability of the data, source, and method triangulation were employed.

### 3. Results and Discussions

#### 3.1. General Characteristics of Sample Respondents

The gender distribution of sample respondents both for members and non-members of CFM respondents were similar that male accounts for 85% while the remaining 15% are females in both strata. Even though the CFM approach is gender sensitive, most of the female headed households are not member of CFM because of cultural and resource barriers. The age distribution of the sample respondent shows that majority of them are found on the working class which is 70% and 100% for members and non-members respectively. This age class is the class which is considered the most productive and responsible for the household as well as social responsibilities. From the total of CFM members sampled, 95% of them are native to the village while it is only 60% of the non-members who are original to the village. The rest of sampled respondents migrated to the village from other neighboring villages and countries; Southern Sudan, and Democratic Republic of Congo. Comparatively, the numbers of migrants are higher in non-members than the members of CFM. One of the reasons for the less participation in CFM of the non-native is that they are viewed by the natives as less responsible and less curative about the management of the natural resources. Moreover, among the illegal encroachers, majority of them are the migrants which is mainly due to absence of inherited farm land.

Majority of the sample respondents are illiterate (has no formal education) with illiteracy greater in non-members accounting 70% while it is only 55% for the members. Having greater family size is culturally considered as a pride and human resource in the study area. Therefore, the family size ranges from the smallest 6 to the largest 17 family members with the average of 8 and 10 household members for members and non-members respectively.

Majority of sample respondents in both categories have small land size (below 1 acre). The mean land holding for the CFM members is 2.55 acres while it is 1.5 acres for non-members. The number of households who do not possess land is greater for the non-members than those of the members. Conversely, the number of household with larger land size (> 6 acres) is greater for the members than the non-members.

#### 3.2. Emergence and Introduction of CFM

The national forest policy of Uganda which was declared

in 2001 widely demands the government to find and implement an innovative approach for involving the community in the management of the forest which is found on the hand of the state. In addition, the national forest and tree planting act which was declared in 2003 provides framework for the implementation of the CFM with in the country. Based on the framework of national forest policy and national forest act, the government of Uganda has been implementing various types of decentralized forest management approach. The agreement for the partnership under the framework of the CFM was started in the study area between the responsible government body (NFA) and the local people in 2002. After three years of continuous negotiation, the formal agreement was made effective in 2005.

In addition to the policy framework, it was reported that the prior mutual management of an eco-tourism site contributed for the emergence of passion to work together. This experience assisted the parties to develop trust among each other and the result of eco-tourism site management was encouraging in terms of income and resource conservation. Moreover, the reduction in deforestation and forest degradation, restoration of degraded forest land, and continued income benefit by the neighboring CFM member communities has aroused interest to accept this new forest management approach. Furthermore, the issue of CFM came in to table during which stakeholders concern about deforestation was at its pick. Generally, the national forest management policy framework, the popular demand of the local people to have a stake in the forest management, restoration of the lost trust between the stakeholders, gradual recognition of benefit of CFM and arousal of concern to overcome deforestation and forest degradation were the prime reasons for the introduction and implementation of CFM approach.

#### 3.3. Forest Condition and Local Livelihood Before and After CFM

Based on the analysis from sample respondents, taking the shift in forest management approach as reference point, all member respondents revealed that forest condition has improved with the introduction of CFM. It was also said that the legitimate income of the local people has been increasing with the contemporary forest management approach because of addition of various income generating schemes.

Compared with the top-down forest management approach, the CFM has improved the stake of local people in forest management which in-turn improved local peoples' feelings of ownership. All respondents agreed that forest cover and income of local people has become better after the introduction of CFM in the area. This is mainly credited to change in the institutional setup of CFM from the conventional approach. Recognition, involvement and empowerment of concerned stakeholders, shared responsibilities and benefits, patterned operation within the forest, mutual rule devising and enforcement, other additional income collection mechanisms and public

awareness campaign are among the additions by CFM over conventional forest management approaches.

### 3.4. CFM Operational Strategy

Operational strategy dignifies the philosophy behind forest management approaches and it directs and guides course of action. Moreover, it determines who and how this action can be taken in the forest management. In the conventional state based unitary forest management approach, NFA reserved absolute power and orders and directives trickle down from the central to periphery. In the new (CFM) approach, the decision making power, responsibilities, costs and benefits are shared among various stakeholders clustered according to their roles and their degrees of involvement are mutually agreed. Accordingly, CFM encompassed three groups of actors with delimited area of action made on the consensus of parties. Table-1 depicts the roles and responsibilities of stakeholders under CFM arrangement.

Although basic decisions like rule making is made jointly by the partners, each groups of actors play different yet interrelated roles in the management of the forest. This makes it simple for the parties to discharge their responsibilities and improve their accountability to their action. Moreover, coordinated action of actors eases the cost of monitoring and enforcements of rules which in turn pave the way for an early correction of irregularities. All of the sample respondents (members), discussants and interviewees agreed that their involvement in the management of the forest is one of the reasons for which deforestation and forest degradations are declining.

The pattern of interaction and communication between stakeholders and among various level sister CFMs facilitates

the success in the forest management. It determines the access of information each actors have on the decisions of the other up on which actors decide and act on the basis of the information they posses. Under the scheme of CFM, the communication mechanisms have two modalities. On the one hand, signatories (NFA and Local Community) and other stakeholders periodically share status information's, experiences, successes, and problems for an early action. Besides its monitoring functions, such communications build trust among stakeholders which is the core of success in partnership. Moreover, periodically evaluating the work of each other and monitoring of proper implementation of plan depends on the intensity and smoothness of communication between actors. Under the same communication pattern, each actor's have their own distinctive information sharing platform. This operational communication platform is designed to share responsibilities and closely monitoring of the action of each member's within distinct actor.

The second type of communication is the horizontal communication among local, district, national and regional CFM networks. These networks are designated as *area based* and *thematic based* networks. In the area based network, the bi-annual experience sharing network of West Budongo CFM network opens the way for different CFM groups to adopt better experience from each other which they may implement in their respective CFM. In the thematic based network of CFM, experiences with in the country and regional associations (Kenya, Uganda, Tanzania and Rwanda) deliberates on overall achievements, and further issues on CFM which can also be utilized by each CFM projects across each country. Therefore, the presence of inward and outward communication patterns and networks improve sustainable management of forest resources.

**Table 1.** Actors and their roles in KICODA CFM

Collective name	Actors in the category,	Collective roles	Some Specific roles
Signatories	NFA	Responsible for the overall management of the forest. Plays leading roles in rule making, enforcing, monitoring, and sanctions.	Supervising implementation of rules, Provide technical and material support, Manage marketing of forest products, Represent CFM in regional networks Represents the state interest.
	Local peoples' (members of KICODA)	Representing CFM in national and regional CFM networks	Protection of forest through guarding, undertake restoration and afforestation activities, supervise proper implementations of rules and agreements, Regular reporting of forest condition, Represents local peoples interest.
Supportive partners (indigenous and foreign NGO's)	CODECA	Involved in rule making, enforcing, monitoring, and sanctions Provide trainings and educating local peoples	Provides technical, material and financial supports Provide market and other services Mediate between signatories
	Eco-trust,		
	Jane Good All Institute		
	Nyabeyaya Forestry College		
Administrative partners	County administration	Provides overall Legal services. Reconcile between signatories.	
	District administration		
	National administrations		

Source: (KICODA CFM agreement document, 2006)

### 3.5. Enhancing Institutional Factors in CFM

Based on the assessment, in addition to the operational strategy of CFM, the following institutional factors are found to be supportive of sustainable forest management with the dual objectives of forest conservation and livelihood improvements.

**Incentives and incentive structures:** “Forest is mainly lost because the conservation and sustainable management of the forest is less profitable than deforestation at least in the short term” [18]. In order to involve the community in forest conservation, the benefit from the conservation has to be greater than the cost. This can be realized through establishment of institutional mechanisms which offsets the cost of conservation or outweighs the benefits of deforestation.

One of the challenges in sustainable forest management is that the benefit from forest is not realized monetarily in a short term and the environmental value of the forest is intangible. On the other hand, the benefit from deforestation of forest is monetarily tangible at least in a short term. For the people with subsistence farming, striving with poverty and uncertain future due to productivity loss, at least from life sustenance point of view, it will not be justifiable to judge if they tend to value short term benefit at the expense of long term values. However, this neither mean subsistence farmers do not think of long term benefit nor placing ground in favor of short term unsustainable benefit via putting pressure on resources. In principle, however, it is worth to justify that inheriting the degradation to the coming generation as it was inherited by the present generation should be stagnated. Therefore, in order to promote sustainable forest management, in any forest management approach, there should be alternatives which can compensate the livelihood and this was missing from the conventional forest management approach leading to its failure.

Incentives were one of the mechanisms employed by the CFM in order to raise the benefit of the local people by offsetting the benefit gained from deforestation. When it is properly implemented, an incentive provided to the local people reduces the pressure on the forest and promotes sustainable forest management.

Though missing in the conventional approach, the current management approach clearly spells out the incentives that the local people will have to obtain as they engage in agreement to successfully manage the forest. It is dually justified from conservation and livelihood objectives of CFM approach. The incentive was designed in such a way that it replaces the product the local people were exploiting from the forest. In addition, it is an alternative form of assistance to reduce the pressure on the forest and motivate the local people for future investment. Therefore, members of CFM are entitled with material, economic and organizational incentives for being involved in forest management. In addition to local people, NFA are also benefited from the incentive structure as the cost of forest management reduced and covered by the local people.

The study revealed that members of CFM freely obtained open land areas around forest boundary on which they plant trees for domestic utilization and income generation with the purpose of protecting forest and replacing benefits obtained directly from the forest reserve. In addition to the boundary land, they were also provided and engaged with various types of income generating activities (IGA) (nursery site establishment, freely provision fruit tree species and vegetables to be planted around home, bee hive, poultry farming, engagement in small cottage industries) in order to get income with the aim of rising local peoples income and forest protection. Moreover, though not implemented, signatories are entitled for environmental service payments.

All members reported that the incentive scheme of the CFM is very important for the forest conservation and improvements of the local livelihood. These have a dual positive outcome of livelihood improvement and the better management of the forest. However, to realize the full benefit of such schemes, the issue of equity between members and non-members, free riders and products market demand strong emphasis.

**Stakeholders Participation:** The participation of the local people and other stakeholders in different meetings, responsibilities and decision making have its own contribution on the better management of the forest. The act-alone approach was not effective in the protection and management of the forest. All the respondents noted that the changes that have been registered on the forest condition are also credited to the fact that the local people were considered as part of the system. On the same way, NFA officials explained that the cost of managing the forest have reasonably reduced after the involvement of the local peoples and NGO's. Before the CFM agreement, the NFA was paying for patrols in which the cost is reduced by more than half after the CFM agreement came to effect. The cost of forest restoration was also reduced after the CFM agreement. The effectiveness in sharing of better experience among the stakeholders has eased the management of the forest. Furthermore, the NFA had difficulties in identifying and protecting the source of deforestation before the involvement of the stakeholders. Thus, participation of the local people in forest management from operational level to higher level management is linked with the improvement in the management of the forest. This benefit was realized in that the participation in all management responsibilities promote mutual decision where all parties agree on the decision, promote decision based on the real circumstances, and eases the enforcement and monitoring of the decision. Even though the participation of the local people has been linked with the improvement of the forest management, the cultural barrier which prohibits womens' equal participation in the management posed speakable challenges.

**Communication and pattern of interaction:** As it is clearly explained under section 3.4 above, there is well structured communication mechanism between the stakeholders, among the local people and at regional and

national level. As the data from the questionnaire shows, 95% of members of CFM have said that the communications between the stakeholders are immense while the remaining 5% said the communication is fair. This shows that there is better information flow between the local peoples and other stakeholders concerning the management of the forest. On the same way, the discussion held with the members of the CFM and representatives of stakeholders proved that inter and intra communication mechanism created by the CFM facilitated the sharing of experience, promoted trust between the stakeholders and access of information within the system.

**Resource Boundary and Demarcation process:** The study revealed that the boundary of the forest is clearly demarcated and all the concerned bodies are aware of the boundary. The forest under the boundary covers 767.7 ha of land. All the respondents (members and non-members) said that they clearly know the boundary of the forest under their management. Moreover, the users of the resource within the specified boundary are clearly identified and known to all. The demarcation of the boundary of the resource were undertaken by the stakeholders before the agreement of the CFM were made.

The demarcations of the boundary have supported them in protecting illegal actions with the boundary. It also fostered the cooperation of the forest protection with the adjacent forest reserves. Moreover, forest management practices and restoration of the forest eased after the demarcation of the forest boundary. In addition to that, the conflict that was prevailed between the adjacent villages was solved after the boundaries of the resources were agreed by the community. Asked about the difficulty for the exclusion of unauthorized person, all the members of the CFM said that stopping/excluding others from the entry is enhanced after the CFM. This was mainly the result of the demarcation of the boundary of the resource, demarcation of the right of the users over the resource and the authorization of the resource users for the protection of the forest. It is understood that the presence of clearly defined boundaries of the forest, and clearly defined rights of the local people over the resource, have eased the management and monitoring of the forest.

**Rule Making process and the role of stakeholders:** Parallel to the defined boundaries of resources and users, the operational rule making has also bearing effect on forest management. In the conventional approach, there was no room for the local people to participate in the rule making process. Supporting this, it was only 25% of the local people who were aware of the dos and don'ts of the forest management in the area. The rules set out for the management of the forest was not prepared by the participation of concerned people, it was not clearly communicated to the local people and the enforcement was through the officials and patrols of NFA. This situation exacerbated the degradation and deforestation in the area due to many factors. First, the rule was made by the outsiders who don't have awareness about the local circumstances and the livelihood of the local people who partly or entirely

dependent on the forest. Second, the local people were not aware what was allowed and what was not allowed concerning the utilization of the forest product. In contrast to the previous management approach, the CFM provides an opportunity for all stakeholders to take part in making and modifying operational rules.

Concerning the rule making process, the CFM scheme has created an opportunity for the local people to be part of the rule making process for the management of the forest. The local people have participated through their representatives as well as collectively in the process of rule making and modifying concerning forest management under their mandate area. Based on the data obtained from questionnaire, 95% of members agreed that the rule making process was participatory. One of the advantages that local people have gained through the participation of rule making was that their need and desire were considered. As the local people are part of the system in designing an operational rule, consideration were given to the needs and demands of the local people from the forest during the rule making process and this have helped them to be benefited from the management scheme. From the total respondents, 95 % of members said that the rule making process considered the prevailing local circumstances. The needs of the local people were equally considered with the forest conservation goals. The consideration of local circumstance facilitated the successful management of the forest as it was based on the local reality.

The other advantages of participating in the rule making were that the local people easily understood the rules and regulation of the forest management. All the members of the CFM group in the study area agreed that the rule that guides the management of the forest under CFM is clear and easy to understand. On the same way, more than  $\frac{3}{4}$  of the respondents explained that they are aware of the rules that govern the forest management.

**Rule enforcement and sanctioning mechanisms:** There are different rules and regulations that have been set for the use and management of the forest under the state forest management arrangement. These rules and regulations are well documented under the legal framework of Constitution, the National Land Act and the National Forestry and Tree Planting Act of the country (Uganda). However, there was no clear guidance or facilitation for the enforcement of the rules and regulations [16]. Sustainable management of the forest was not hindered by the absence of proper rules and regulations, however, the proper enforcement of the rules were missing. No matter how better the rules of forest management are, unless it is enforced and implemented, the result wouldn't be better in terms of the management of the forest.

In addition to the rule making, enforcement of the rule also plays pivotal role in the successful management of the forest. The enforcement of the rule was not getting focus in the previous management scheme. Even if the enforcement was considered, it was undertaken by the patrols and agents of the government with no concern of the local people. Unless the rules are enforced and implemented properly, the outcome of

the management will not be effective. In addition, the enforcement of the rules has to be in harmonious with the ground circumstances in order to produce the desired outcome. There are two main things improved concerning the enforcement of the rules as compared to the previous management scheme. First, the enforcement of the rules has got an attention and is strictly followed by the responsible body and other stakeholders. Second, the local people became part of the rule enforcer than the violators. Compared to the previous management scheme, the enforcement of the rule is strong and effective in the CFM scheme. This was attributed to the fact that the local people were part of the enforcement and they clearly know the rules of the CFM. All of the respondents agreed that rule enforcement is stricter in CFM management scheme than the previous management approaches. On the other hand, only 10% of the respondents said that the rule enforcement was not successful as expected in achieving the desired goal while the remaining 90% proved that it was the otherwise. The rule Enforcement and sanctioning of irregularities are undertaken jointly by the local people and NFA.

The rules set for the protection and management of the forest are in use (working). The punishment and penalty for the infidelity is also clearly set and is in use. If the local people and others are caught violating the rules of CFM there is a strict mechanism to punish them. Depending on the strength of the violation, punishment is made internally or externally by the national court system. During the discussion with the non-members of the CFM, they stressed that they are reserved from entering in to the forest for tree cutting because they fear the punishment. Therefore, the strict enforcement of the rules and regulations of the forest management under the CFM approach resulted for the better management of the forest.

**Monitoring:** One of institutional factors which affect the management of the forest is the mechanism of monitoring of the activities in the forest. Like the rule enforcement affects the forest management, monitoring of the activities of the actors and the proper implementations of the rules determines the success. The study revealed that Monitoring of the activities are undertaken jointly by the local people, NFA and other stakeholders. The day to day actions of the community, the operational level activities are mainly monitored by leaders elected from the local people. On the same way, the NFA and other stakeholders monitors the activities of the management system in general. On the matters of benefit sharing, forest inventory and other management activities, all the stakeholders are entitled to monitor together. The local people prepare a bi-annual report of the operational level activities and submit to NFA and other stakeholders. In addition, all the stakeholders have a monitoring review forum each year where they evaluate the activities, amend agreements, add or change operational rules and consider future actions. In principle, the NGO's and NFA follow up whether the IGAs are moving as desired. The periodic monitoring of the operational and management activities assists in the correction of deviation on time. It also

directed the effort of each actor on the desired goal. 80% of respondents assume that monitoring scheme set by CFM positively enhanced the forest condition.

**Awareness and Training:** The other positively counted contribution of CFM is that it provides a room in which the local people get awareness on multifaceted benefits of sustainable forest management. The local people were informed about the consequences of the deforestation and the benefits of forest for their livelihood in the future. As part of the CFM, during onset and after agreement of CFM approach, the responsible body and other concerned stakeholders have prepared and implemented the awareness creation program to the local people. As a result, 70% members' reported that awareness of the local people is one the reason for the reduction of the deforestation in the area. Moreover, more than half of the respondent (55%) of them decided to join the CFM mainly because of their awareness. On the same way, 50% of the non-members said that they are not involved in illegal activities because of the awareness they have got from the campaign. All the respondents do know that the negative consequences of the deforestation and benefit of sustainable forest management.

In addition to the awareness creation, intensive trainings provided to the local people on the management of the forest and other businesses equip them with better knowledge. From the member respondents, 90% of them said that the training provided to the local people is practically helpful and applicable. Furthermore, all of them agreed that training given to them have positively linked with the improvement made on the forest management and forest improvement.

## 4. Conclusions

Institutional arrangement, bio-physical structure and socio-economic condition of local community are among the prime factors which determine the success of any forest management approaches. The sole focus on forest condition setting aside the livelihood of forest dependent communities seldom contribute in achieving the goal of sustainable forest management. To promote sustainable forest management, an approach which entertains multi-stakeholders with the right institutional setup is favored over other approaches missing such qualities. Among others, Collaborative Forest Management approach is advocated mainly because of its inclusiveness, patterned communication and operational strategy and distributions of management roles, responsibilities, costs and benefits. When CFM is implemented with adjustment to fit local circumstances, the gains in promoting forest conservation and improving income of local people is mentionable.

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