

# An Analysis of Local Participation in Community Forestry: The Case of Tinto and Bimbia-Bonadikombo Community Forest, Cameroon

Mbunya Francis Nkemnyi<sup>1\*</sup>

<sup>1</sup> Institute of Development Policy and Management (IOB), University of Antwerp, Belgium

\* Mbunya Francis Nkemnyi, E-mail: nmbunyah@gmail.com

## **Abstract**

*Local participation in forest management remains a fundamental challenge to be solved despite the growing political and academic interest in participatory management. This study analyzed how community forestry implementation in Cameroon has affected the participation of local people using two case studies. In-depth interviews and focus group discussions were the main methods in data collection. The main findings revealed that majority of local community members (73.3%) were less informed of the purpose of community forestry. This limited participatory efforts in the implementation process. The creation and management process of the community forests were more focused on engaging influential actors rather than enabling social justice as proposed by the legislation. Marginalization of local community members, which community forestry was created to resolve was still evident. This study argues that although participatory policies are usually designed to benefit the less privileged, the outcomes most often do not match the purpose. There is need for participatory policy debates and development to go beyond theoretical formulation to crafting mechanisms and feedback systems that could ensure successful implementation and follow up.*

## **Keywords**

*community forestry, participatory management, local people, policy development*

## **1. Introduction**

Forestry decentralization is widely promoted throughout the world tropics as a policy that leads to participation and poverty alleviation (Adam & Eltayeb, 2016). This is linked to the argument that forest ecosystems contribute significantly to the socio-economic development of forest-dwelling communities (Mislimshoeva et al., 2016). Efforts to promote participation in forest management across Africa has been centered on decentralizing forest management (Ribot et al., 2010). The focus of forest decentralization is to enable sustainability in forest resource management (Decaro & Stokes, 2013). Participatory management in forestry seeks to promote social justice and equity amongst forest adjacent communities (Lund & Rutt, 2015). Bottom-up policy making process and public participation

has been widely advocated in decentralization and natural resource governance (Wodschow et al., 2016). Nonetheless, forestry decentralization has provided few direct mechanisms for sustainable management (Adam & Eltayeb, 2016).

In Cameroon, the forestry sector contributes considerably to the country's economy with 160,467 km<sup>2</sup> of forest covering 466,326 km<sup>2</sup> total land of the country, generate 6% of the country's Gross Domestic Product (Buchy & Maconachie, 2014). Local people are highly dependent on forest resources to meet both development and basic livelihood needs (Nkemnyi et al., 2011, 2013; van Vliet, 2010). However, it is debated that the local community members as the custodians of forest resource are marginalized (Djeumo, 2001; Ndibi & Kay, 1999; Yufanyi, 2012). This acknowledgement triggered the Cameroon 1994 forestry and wildlife law, which legalized the participation of community members in forest management through the implementation of the concept of community forestry (Oyono, 2004, 2008). The introduction of the concept of community forestry in Cameroon marks a shift from colonial heritage forest management approach to a more or less participatory approach (Yufanyi, 2012). Notwithstanding, decentralization of forest management in Cameroon has been argued to have contributed less to participatory forest management (Ezzine de Blas et al., 2011; Nkemnyi et al., 2014; Yufanyi, 2012). Failure in the implementation of decentralization has been attributed to poor institutional capacity, corruption due to poor accountability and poor monitoring and evaluation (Alemagi, 2011; Brown & Lassoie, 2010). Failure is also linked to unequal distribution of power among different institutions (actors) entrusted with management rights (Nkemnyi et al., 2016)

This study contributes to the theoretical debate on the shortcomings of participatory management in community forestry in Cameroon by analyzing the roles of actors and the process shaping participation using two case studies (the Bimbia-bonadikombo Community forest and the Tinto community forest). This study is motivated by the theoretical argument that effective local participation can motivate Adaptive Collaborative Management (ACM), necessary for sustainable management of natural resources (Diaw, 2009). ACM is a system of management which built-in institutional mechanisms for accommodating multiple interests and for adjusting these interests through experiential learning.

## **2. Scope of Study and Data Collection Approach**

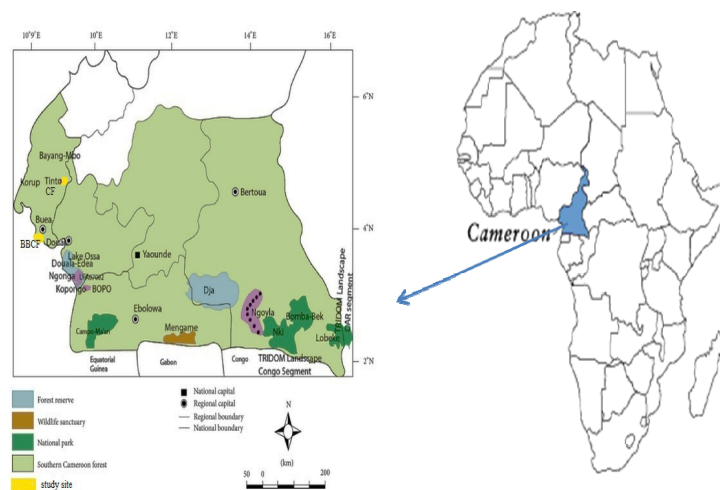
### *2.1 Scope of Study*

Cameroon is located between West and Central Africa at the extreme north-eastern end of the Gulf of Guinea (Ako et al., 2009). The landscape is distinguished by five main physical features namely; the Coastal Lowlands, the Southern Plateau, the Adamawa Plateau, the Western Highlands and the Northern Lowlands (Ako et al., 2009). The vegetation is dominated by equatorial forests in the equatorial zone, mangrove forests in the coastal areas and guinea savannah covering the rest of the zones. The vegetation is mainly Sudan savannah, with Sahel savannah in the extreme north part of the country which falls in a tropical climate zone (Singer, 2008). Cameroon comprises of three main climatic zones: the equatorial climate, the equatorial transition climate and the tropical climate (Ako et

al., 2009).

Two sites with a CF were selected for this study. This included the Bimbia Bonadikombo Community Forest (BBCF) and the Tinto Community Forest (TCF) (Figure 1). The study sites were selected based on the date of creation and the income generating activities of the CF. Both study sites have existed for more than 10 years, a time duration evaluated to be sufficient to evaluating peoples’ knowledge regarding CF implementation. In addition, they explore timber as an income generating activity. This permitted the evaluation of how local community members have participated in benefit sharing.

The BBCF created in 2002, is situated at Fako Division, South West Region of Cameroon and has a surface area of 3.735 ha (Ahimin & Mbolo, 2010). Six main vegetation types that include coastal bar forest, mangrove, littoral vegetation, freshwater swamp forest, freshwater ecosystems and lowland forest dominate the BBCF. Rainfall, temperature and humidity are high (Minang, 2003). Annual rainfall is between 4000 and 5000 mm per annum. A short dry season is experienced between December and February. Humidity in the area is usually between 75-80%. The community is peri-urban, located on the fringes of the Limbe (Victoria) urban community. The BBCF comprises five villages (Bonadikombo, Bonabile, Bonangombe, Liwanda, & Dikolo, n.d.). On the other hand, the Tinto community forest is situated in Manyu Division, South West Region of Cameroon. It was created in 1999 and covers a surface area of 2.950 hectares. The forest area is well-drained with an average elevation of about 160 m above sea (Minang, 2003). It has an average rainfall of about 2000 mm per year. A short dry season occurs between November and March. Tinto falls within the rich evergreen forest areas of Cameroon known for their endemic species. The adjacent inhabitants of the forest are between 1700-2000 people distributed across three villages of the same clan: Tinto Mbo, Tinto Wilier and Tinto kilier (Ngendakumana et al., 2013).



**Figure 1. Location of the Study Area in Cameroon, Africa**

Source: Adapted and modified from (Ngendakumana et al., 2013).

## *2.2 Theoretical Framework*

The analytical framework in this study is built on the concepts of adaptive collaborative management-ACM (Diaw et al., 2009). ACM is a system of management with built-in institutional mechanisms for accommodating multiple interests and for adjusting these interests through experiential learning. ACM builds on several concepts including the concept of complex systems, pluralism, equity and development, non-comparable value systems, social learning, adaptation, adaptive management, cooperation and competition, models of human interaction, the nature of science and the process of facilitating change. ACM provides a powerful conceptual platform for drawing into meaningful clusters the diverse interests held by different actors in community forestry. This study draws on the concept of alterity, which, in forest settings, translates into multiple interests and conflicting claims. The sense of our difference in relation to others is a very essential basis for the movement of society toward conflict, pluralism and/or cooperation. Thus, dealing with alterity should be an important aspect to deal with to ensure the success of conciliating forest management activities with actors' interests. The study also made use of the concept social learning theory. The social learning theory deals with uncertainty, unpredictability and adaptation, which are involved in forest management. In Community Forest (CF), uncertainty and unpredictability comes in based on the argument that when policy are developed, implementation most often do not results as foreseen (Bond, 2014). Thus, continual learning is crucial to enable adaptation and sustainability in forest management.

## *2.3 Data Collection Approach*

This study adopted a qualitative methodology and, to a small extent, a quantitative methodology which was used to cater for the social and demographic characteristics of respondents. Qualitative methodology was used because it is vital when studying human behaviors and interaction own perspective (Holt-Jensen, 1999). In other words, it helped the researchers to understand how the participation of local people is shaped by multiple interests and conflicting claims and how adaptive strategies are developed to protect these interests and claims.

Primary data for this study was collected between January 2013 and July 2014. Primary data collection tools included interview guides, Focus-Group Discussions (FGDs), and field observation check lists. Interview guides were used during the in-depth interviews with respondents. Interviewing is an important tool for data collection and helps researchers to understand the world from the subject's or respondent's point of view while unfolding meaning of people's experiences and uncovering their life world (Bloomberg & Volpe, 2008). The in-depth interviews were gathered from 60 respondents. Data saturation was one of the main criteria of determining the number of people to be interviewed per village. Respondents were selected purposely based on their length of stay in the communities as well as their knowledge and experience regarding CF implementation. Each Study site (CF) consisted of villages from which 30 key informants were selected. At each village, key informants were selected to participate in the study with the help of local field assistants and the community leaders. Interviewees were selected to represent the following categories of people: forest management committee, local

development council, elites, women, youths, farmers, local government staff and local investors. The study ensured that interviewees were uniformly distributed across these categories. To evaluate local participation in CF, the selected participants were asked questions about the formation of the CF, the persons involved in management, the management processes, the benefits community members received as a result of the CF and their overall evaluation of how local people participation is represented. In-depth interviewing was appropriate in this study as it facilitated in-depth probing and clarification of concepts to respondents, thus making it easy to obtain the required information.

In addition to interviews, two focus group discussions were held, one in each of the study sites. In the BBCF, 12 participants (two forest management committee members, two local government representatives, one village development council member, two youths, two men and two women who were all farmers and one elite) took part in the discussion and in the TCF nine participants (two forest management committee members, one local government representatives, one youths, two men and two women who were all farmers, and one local investor) took part in the discussion. The focus group discussions provided a platform where participants raised arguments and clarified each other on their views. The FGDs advanced the discussion of questions raised during interviews by enabling participants to engage in self-directed arguments on the questions raised. Participants, raised arguments based on their views and understanding of their participation in CF and this enabled the researchers to have a better understanding of diverse views held by different actors. The principal investigator chaired all the discussions while two field assistants took notes of key arguments raised. A voice recorder was also used to document the FGDs. The voice recorder facilitated the analysis of un-cleared notes taken during the discussions. In addition to FGDs and interviews, field observations enabled the researcher to be able to evaluate people's attitudes and general perceptions from a wider perspective. Participatory observation enabled the collection/validation of data collected during interviews and focus group discussions. This method also enabled the research team to get more detailed and context information which was not covered by both the FDGs and the interviews. Observations enabled the reconciliation of information gathered and the field situation.

#### *2.4 Data Analysis*

Quantitative data was subjected to descriptive analysis with a major focus on the demography data of the participants that were involved in the study. The analysis of this information was relevant to aid the explanation of some qualitative results obtained during this study. Qualitative data analysis made use of content analysis. Content analysis enabled aggregation of similar arguments and the establishment of relationships between arguments. Qualitative data collected were categorized using major themes in the transcripts (Knowledge on CF, opinion on management process, opinion on laws, opinion on benefits sharing and opinion on local participation). This categorization enabled the clustering and comparison of responses from the two studied sites. Sub-themes were further developed based on the content of the transcripts. The sub-themes helped in the assignment of data as per gender, community studied, age group, level of education, amongst others. The creation of sub-themes was necessary to enable an

analytical view on the research subject. A critical analysis of the themes was then performed and relationships established.

### 3. Results

The results present local awareness on the concept of community forestry. The focus on awareness is motivated by the argument that for effective participation to be ensured, individuals involved must be fully aware of the case. Using different variables, the study also evaluated the effectiveness of the participation of local people. The sampled population was more of males (63.3% and 66.7% respectively in BBCF and TCF). All interviewees were above the age of 30 years and have lived in the community for more than 20 years. The majority of the interviewees were farmers/fishermen (Note 1) (66.7% and 56.7% respectively in the BBCF and the TCF). All interviewees had attended at least primary education. In addition, 90% of interviewees that had attended at least high school education were employed with the local government or self-employed as entrepreneurs (small business). Average household size was seven.

#### 3.1 Local Knowledge on Community Forestry

Access to knowledge is important in shaping who can benefit from resources (Ribot & Peluso, 2003). Local knowledge on CF explored how well interviewees were informed on the concept rights and benefits. In the TCF, 90% of the studied population were aware of the existence of the CF. On the other hand, 10% had no idea if the forest was a CF or not. Further analysis revealed that 73.3% of the interviewees had very poor knowledge on the purpose of CF. Interviewees (26.7%) who had good knowledge on the purpose of the CF were either part of the Forest Management Committee (FMC) or local government staff members. Similarly, though all the interviewees in the BBCF were aware of the presence of the CF, 60% had poor knowledge on the purpose and the management settings. In Tinto, 16.7% of interviewees thought 'the village secretary' was the manager of the CF. Furthermore, despite the emphasis in the policy document enabling the creation of the CF that local participation is imperative in the formation and management processes, this study revealed that 73.3% of the interviewees in Tinto did not take part in these processes. In the BBCF interviewees had a more clearly view of different main actors involved in the management of the CF (the chiefs, elites, the Limbe III Council and some selected members of the community). However, they were not well informed about the persons representing the interests of the groups listed above nor were they informed of the management processes.

In addition, when interviewees were initially asked if their rights and benefits to CF were protected by the FMC, the result revealed that 86.7% and 56.7% in the TCF and BBCF respectively responded yes. However, with a list of follow-up questions on how these rights and benefits were achieved and shared, they ended up attesting that what they understood as rights and benefit do not match the context of CF specified in the interview guide study of the study. To interviewees, the protection of rights and benefit meant that there were no major overlaps between their forest-based activities and the activities of the

CF. On the other hand, interviewees (43.3% and 13.3% respectively in the BBCF and TCF) argued that the benefits and rights of local community members were not protected. Follow-up interviews with members of the FMC, on why local community members are poorly informed about the purpose of the CF, revealed that this was as a result of limited funds available during the creation process of the CF. In regards, efforts were mainly focused on the development of the management plan and the lobbying of actors who could facilitate the creation process. After the creation, efforts were then directed toward lobbying investors. The members of the FMC interviewed further revealed that, though majority of the local community members may not be aware of the processes involved, the FMC are working for their interests and they will as well benefit from development projects that are implemented as a result of the CF.

### *3.2 Local Participation in Community Forestry Implementation*

More than 80% of the interviewees were not actively involved in the implementation of CF and more than 60% have never been involved in any decision making process relating to forest management issues in their various communities. Farmers, women and hunters based in the local community are the main persons interacting with forest resources; notwithstanding, they had little or no say on how these resources are being managed. “*We are side-lined simply because we cannot read nor write*” said one of the interviewees. Most members who held key positions in the FMC were not resident in the local community. The case of BBCF clearly reflected this situation. The majority of the FMC members were elite (Note 2) residents in urban centers and only visited the implementing community when need arose. This was recorded as one of the main reason why management is not effective. Some interviewees (23.3% and 40% in the BBCF and TCF respectively) do not see reasons why they should abide to forest exploitation rules established by the FMC. Subsequently, they did not see any reasons why they should obtain a permit to exploit what belongs to them or why they should obtain permission from “outsiders” to exploit what should rightfully belong to them. The lack of participatory management was stated as a major reason for illegal forest exploitation, which was very common in both study areas.

Supporting the view that the right of the local people were not protected (43.3%), interviewees revealed that access to explore commercial forest products (timber, charcoal, non-timber forest products especially *Prunus Africana* amongst others) was not by merit but characterized with a lot of bribery and corruption. Only those who can “pay the price” or those in high administrative positions have access to these products. In both the TCF and the BBCF, logging was the main activity of the CF. Considering the expected income logging generates and given that both community forests have been in existence for more than 10 years, the study expected to record evidence of developmental activities financed by the CF, given the rationale of the concept. However, this was not the case. In addition, there were no means of verification of income generated from the CF activities and on how this income has benefited community members at the study site level.

#### 4. Discussion

Involving local people in natural resource management requires paying attention to their needs (Berkes et al., 2009; Decaro & Stokes, 2013). The results in this study suggests that although the CF management approach is defined in theory as participatory, in actual fact, very little attention is paid to local peoples' needs. Firstly, majority of local community members (73.3%) were poorly informed of the purpose, thus do not stand any chance to contribute to management, given that access to knowledge is important in shaping who can participate or benefit from resources (Nkemnyi et al., 2014; Ribot & Peluso, 2003). The results also revealed that the creation and management process was more focused on engaging influential actors rather than ensuring participatory management. This limited equity in participation and promoted powerful actors to overshadow the management process. In line with the above results, it is argued that the lack of equity and social justice in forest management generate multiple interests and conflicting claims which are often hard to reconcile (Büscher & Dietz, 2005; Diaw et al., 2009).

The gap of self-interest needs to be bridged if effective management must be attained in CF. This study argues that the main shortcoming was as a result of poor policy but rather the processes shaped by powerful actors leading to the implementation of the policy. The results of this study revealed that the participation in forest management as defined by the Cameroon (1994) forestry and wildlife legislation does not reflect the practice. This finding is in line with the argument that policy usually promotes the concept of participatory management in theory but most often implementation does not happen as planned (Bond, 2014; Büscher & Dietz, 2005; Dietz et al., 2003). The above argument was also supported by the fact that more than 60% of the studied population who were supposed to be actively involved in forest management were actually left out and had very little knowledge on the management process. This also aligned with the argument that decentralization of forest management through CF has not promoted local democracy, as might be expected through free debate, public discussion, civic responsibility, transparency and downward accountability (Agrawal et al., 2008; Brown & Lassoie, 2010; Ribot, 2003). The results also revealed limited funding as one of the major drawback to participatory management. Interviewees argued that due to limited funding, priorities in participation were limited to individuals who could make significant contributions in achieving financial rewards. Thus, the outcome of participation was a result of the efforts from few actors. Thus, the interests of a large number of actors were left unreconciled. This implies the management of multiple interests through experiential learning, communicative actions, social negotiation, and empowerment of the underprivileged (Diaw et al., 2009) was absent; indicating that sustainable management could hardly be attained. Based on the above arguments, this study advises that there is need for participatory policy debates and development to go beyond theoretical formulation to crafting mechanisms and feedback systems that could ensure successful implementation follow up.

The emphasis on participation is based on the argument that if local people participate meaningfully in the planning, implementation in practice will be successful (Schultz et al., 2011; Shrestha & Mcmanus,



2008). The results of this study outline incidents poor participatory management by revealing that most of those who benefit from CF are those who can pay “the price” or those in high administrative positions. Similarly, in Namibia, the evaluation of 14 CFs show that power to the local resource user does not happen and that community forestry programs do deliver some of their promises (Schusser, 2012). A case in Tanzania also demonstrates that power transfer to community members to manage forest is still partial and characterized with bureaucracy (Babili & Wiersum, 2013). Notwithstanding, cases of community forestry in Canada, United States, Mexico, and Bolivia holds promise as a viable approach to forest conservation and community development though major gaps remain between matching theory and in practice (Charnley & Poe, 2007). For instance, the transfer of forest management authority from states to communities has been partial and disappointing, and local control over forest management appears to have more ecological than socioeconomic benefit. The trend in the Brazilian Amazonian, Cambodia, Mexico and Nepal shows that CF initiatives are reducing rural poverty while promoting the conservation and sustainable use of forests despite some challenges (Barsimantov & Kendall, 2012; Chhetri et al., 2012; Hajjar et al., 2011; Lambrick et al., 2014; Pokharel, 2012). The general trends in CF prove that CF can contribute to the wellbeing of local people if implementation challenges are revolved. One possible way the case of Cameroon can benefit from the growing innovations in CF is by partnering with countries with successful implementation strategies for collaboration. Furthermore, efforts to ensure that the underprivileged are well represented in the planning and management processes stand a high change of enabling community benefits and sustainable management in community forestry.

## 5. Conclusion

Community-based approaches to forest management have great potential for sustainable management. However, these approaches maybe rendered ineffective if schemes are not implemented in a way that ensures downwardly accountable at the local level. A major limitation to successful outcomes in CF in Cameroon is that the local community members who are the suppose beneficiaries of community forestry are not empowered to take the lead in the implementation process. Given the resources and financial needs in the creation and management of the CF, actors who can finance or facilitate the processes are bound to come on board. These “powerful” actors often develop mechanisms during the pilot phase of the process that enabled them to orientate participation to their interest. This leads to failure in the implementation of the legislation, given that implementation does not happen in practice as spelled out in the legislation. Poor awareness on the purpose of community forestry was also revealed as another factor hindering local community participation. Local community members had poor knowledge on the concept of CF and its implementation as a whole because Forest Managers (FMC) do not find awareness raising and sensitization as priority in achieving effective management. This also goes a long way to marginalize the underprivileged. Based on the above arguments, this study emphasizes that policy development in community forestry should also ensure that individuals, whose

interests are represented in the policy, are empowered to execute and protect these interests. Empowerment of the underprivileged will enable equity and social justice, which are the facets of participatory management.

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## Notes

Note 1. Though farmer and fishermen were collected as separate variable in the field using ranking of occupation, the two occupation are merged in the result section as they analysis showed that there was no clear cut between the two occupation.

Note 2. Elites in the context of the studied community are a group of community members who are more educated and open to opportunities which can influence development in the community. They are usually at the lead of decision making in the community.