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COMMUNITY PARTICIPATION IN FOREST MANAGEMENT IN THE BLEIH COMMUNITY FOREST, NIMBA COUNTY, LIBERIA

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ABSTRACT

Community participation in forest management has gained popularity as one way of ensuring sustainable forest management and so the Bleih Community Forest management was assessed for its adherence to the principles of participation. The study was done in the communities around the Bleih Community Forest, northern Liberia, Sanniquillie Nimba County. A case study approach with focus group discussion and interviews was used to assess stakeholders' perspectives on people's participation in the management of the forest. The data collection was done in November/December, 2015. The interview covered 185 respondents while 85 community members participated in the focus group discussion. Data collected from the interview was subjected to SPSS (version 21) for quantitative analysis and that collected from the focus group discussion was analysed descriptively. Management of the Bleih Community forest was not fully inclusive of the members of the communities surrounding the forest. Eighty four percent (84%) of the respondents did not participate from the development of the management plan to the management and monitoring of the forest. Respondents outside the 36-56 (years old) age category had lower participation likewise females. In terms of people's position in the community, the traditional leaders did not participate at all in the implementation and monitoring of the forest. Also respondents' level of education and place of origin did not increase their level of participation in forest management. The respondents (89%) of all the categories (age, sex, position in the community and level of education) did not show any level of satisfaction with the forest management, their needs were not met as benefits were not given as requested or promised. The study recommends active participation of the communities in the management of the forest.

Key Words: Community Participation, Management.

1. INTRODUCTION

1.1 Background

Liberia is positioned as part of the humid rainforest belt on the west coast of Africa with a population of 4.4 million people. The entire land space is 9.58 million hectares, of which forests occupy over 4.30 million hectares or 45%. Regardless of Liberia's small size, it contains a substantial amount of biodiversity, including: over 2,900 diverse vascular plants (225 of which are tree species), 600 bird species; 150 mammal species; and 75 reptile species. Additionally, Liberia accounts for the major portion (42%) of the upper Guinea forest of West Africa and also produces a wide range of environmental goods and services that benefit the country and the rest of the world. Historically, the forestry sector has been a strong contributor to the economy of Liberia in the form of industrial output, national income, employment and export revenues. Forest products accounted for 5-10 percent of export earnings in the 1980s, rising to over 50 percent in 2000. At local levels, forests and trees provide food, medicine, energy, fodder, farm implements and construction materials. Upon conversion, forestlands have been offering fertile croplands to sustain crop production (Gobeze*et al.*, 2009).

Despite its contribution, forest resources of the country have been deteriorating both in size (deforestation) and quality (degradation). The annual rate of deforestation currently estimated to be about 12,000 hectares (0.3 percent), while the recorded planting of new forests up to 2006 has amounted to only about 11,000 hectares in total (FDA, 2006). Although forest lost is estimated between 0.2 – 0.35% over ten years, forest fragmentation and degradation is advancing rapidly (Abedi-Lartey, 2010).

Overwhelmingly, human factors are responsible for forest degradation in the country. These driving factors include population growth, unstable land-tenure system, poverty, property right over forests, lack of forest and land-use policies, and socio-political instability (Yirdaw, 2002). The forestry sector has suffered from these problems and particularly characterized by weakened forest governance (FDA, 2006). To rehabilitate and re-orientate the forest sector, management of forest resources in Liberia has moved away from command and control system to a more participatory approach that requires involvement of a broad spectrum of stakeholders (Turyahabwe*et al.*, 2012).

The idea of community forest or community participation in sustainable forest management was conceived when the government of Liberia in collaboration with FAO developed the National Forest Policy document of Liberia

in 2006. Following this, the first international workshop on community forestry in Liberia toward a shared vision and action framework for community forestry was organized. With this background, FDA led the establishment of a community forest management department. The Department of Community-Based Forest Resource Management (CBFRM) is responsible for supporting the involvement and participation of rural communities in decision making process in forest resources management. It includes the provision of extension services for poverty reduction and livelihood improvement, enablement of communities, identification, establishment and management of community-based forest resources. (Ghate, 2003).

1.2 Problem Statement/Justification

It is widely agreed that PFM may benefit Liberia by arresting forest degradation and supporting the development and empowerment of rural communities. However, little is known after nine years of the formulation of the policy as to how communities are being engaged and the impact of PFM on all the stakeholders especially the vulnerable. The first community forest management plan in Liberia to be inaugurated was the Bleih Community Forest (BCF), located in the north of Sanniquillie, Nimba County. The BCF may therefore constitute a suitable test case to evaluate the performance of the community forest management concept in Liberia.

1.3 Objectives of the study

1. To determine the level of community participation in the management of the Bleih Community forest
2. To assess the role of education and social position as enabling conditions for participation in forest management
3. To assess benefit flow to communities and its linkage to participation in the forest management

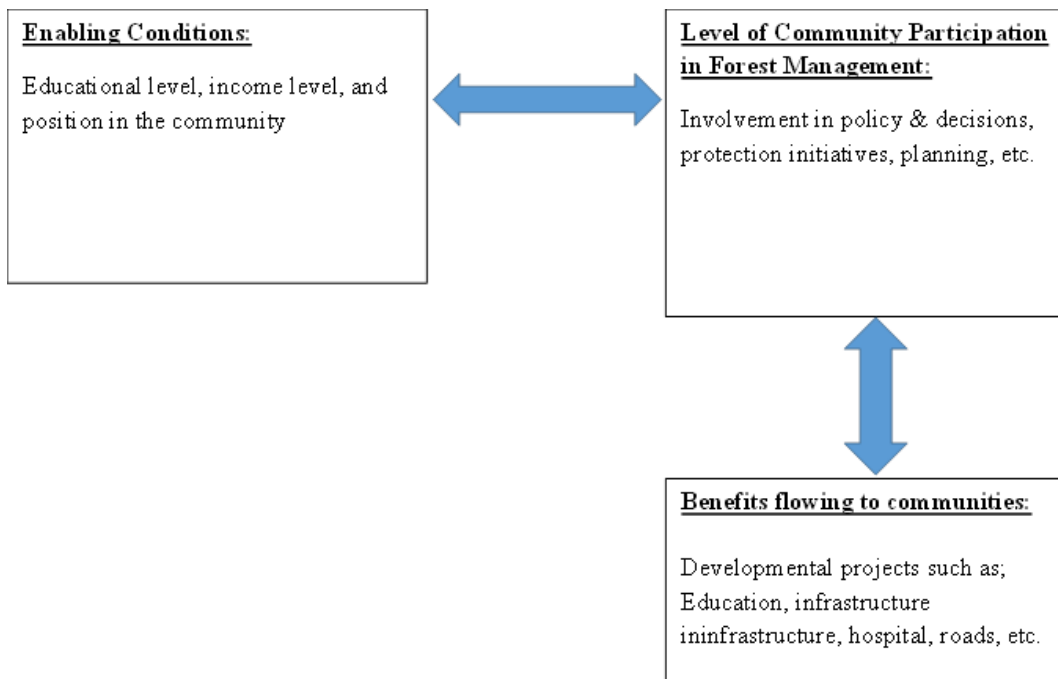
2. TOWARD A CONCEPTUAL FRAMEWORK ON COMMUNITY FOREST MANAGEMENT

A couple of authors have examined the concept of community participation in forest management and the benefits that accrue to the community as a result of their contribution to successful forest preservation, and so on.

The concept of community participation in forest management has been defined to engulf active processes and arrangements made to involve stakeholders/beneficiaries that spell out their responsibilities, roles in planning and executing the management of natural resources and benefits (Warah, 2008; Paul, 1987). While community dwellers usually claim ownership of the local natural resources, they most often are the first culprit in its

mismismanagement through unguided practices (Kyeremeh, 2015). Today, the changing interest of community in forest management coupled with the desire for more sustainable forest management has informed the objective of community participation to empower the population (other than policies that alienate them) to commit to the management and preservation of the local natural resources (Amanor, 2004; Ribot, 2004; Wenner, 1998).

In the current study, attention is drawn on communities in forest management, and considers two variables common in literature; that is communities’ level of participation in forest management, and the benefits accruing to communities. The additional factor considered in the study is the enabling conditions for participation among community members. These were conceived as demographics such as; educational level, income level, and position in community. The study conceptualizes that the level of community participation in forest management is chiefly influenced by the perceived benefits. The researcher also posits that there are enabling factors such as one’s educational level, income level, and position in the community that influence their level of participation in forest management.



Source: Authors own construct 2016.

The definition of participatory natural resource management by Warah (2008) implies that the mutual agreement on community’s involvement in forest management spells out their responsibilities and at the same time the

benefits to the community. Such responsibilities involve active roles of the communities in planning and development of forest management policies, taking initiatives and participation in protecting the forest from outsiders' actions, and also in decision making regarding the use of forest resources (Bathsheba, 2011; Kyeremeh, 2015). In return, developmental projects such as schools, hospitals, road infrastructure, electricity, improved human capital, household income generation opportunities (through employment opportunities and access to credit facilities), good drinking water sources, etc. that the community benefits, serve as catalyst to their participation in forest management (Bhattarai & Dhungana, 2005; Dev *et al.*, 2003). On the other hand, if the communities do not receive any benefits, they are mostly likely to withdraw from participating in forest management.

Ribot (2004) emphasized that even the marginalized and disadvantaged people of the community plays greater role in natural resource management when well empowered. However, in most instances, either managerial responsibilities are burdened on these community dwellers without the necessary logistics to function, or mobilized as manual labourers in the other way round (Ribot, 2004). These attitudes most often result to exclusion instead of inclusion of community dweller in forest management. Therefore the study also explores demographics of community dwellers such as level of education, position in the community, and income level as enabling factors that determine their effective participation in forest management programs. In essence, the well-educated understands and appreciates the value of forests and is less probable to be manipulated, as compared to the non-educated. All things being equal, the well-educated are more likely to participate in forest management than the less or uneducated in the community, since they know and can enforce their right to benefits from participatory agreement (Warah, 2008). Income level measures the individuals' earnings per annum or monthly earnings, in other words the livelihood of the people. High earning individuals arguably are likely to put less pressure on the forest and would more likely participate in forest reserve initiatives given their financial viability. However, low income earners may constitute subsistence farmers who dwell heavily on the natural resources for their livelihood and most often employ unhealthy farming practices that degrades forest resources, hence they are less likely to participate in forest management (Dev *et al.*, 2003). Community leaders have the core responsibility of ensuring that the community and its environment is preserved. One's position and or power in the community, for example, as a chief, unit leaders, etc. may influence their level of participation in such initiatives.

3. METHODOLOGY

3.1 Study area

The Bleih Forest is 629 hectares and located between 7.49-7.44° North and 8.58-8.61° West. The northeast boundary of the Bleih Forest borders the East Nimba Nature Reserve (ENNR) and provides a critical buffer zone for the ENNR. The climate of northern Nimba is tropical and has high rainfall and temperatures, with distinct dry and wet seasons. During the wet season, moist winds from the southwest prevail, and the warm temperatures and high rainfall combine to produce very high humidity levels. Yekepa, a village located approximately 9 kilometers north of the Bleih Forest, has an average 1800mm rainfall annually. Violent rainstorms are most frequent in June and July, although the wettest month of the year is September. The dry season lasts from November until April; March is usually the driest month. During this season, hotter, drier conditions are brought from the Sahel by prevailing winds, known as the Harmattan, from the northeast. Altitude is also a factor; it is estimated that the mountaintops of northern Nimba County, including Bleih, receive almost double the rainfall of the surrounding plains, (Bleih community forest management plan: October, 2011).

Temperatures vary throughout the year. In the wet season, temperatures tend to be consistent, varying approximately 4°C between day and night, compared to 8°C during the dry season, when reduced cloud cover results in hotter days and cooler nights. The average temperature in Yekepa is usually 27.5°C in February, but drops as low as 23°C in June. Northern Nimba County's altitude gives it generally cooler temperatures than the lowlands, and the mountaintops tend to be several degrees cooler than the valleys between them (Arcelor Mittal, 2010).

3.2 Selection of study sites

The study site was selected because the Bleih Community Forest was the first forest community to practice community forest management in Liberia after the National Forest Policy of 2006. The study was done in Nimba County, north of Sanniquellie, Liberia. The Bleih Community Forest is surrounded by six communities that are jointly managing the forest. These are: Gbobayee, Gbarpa, Zortapa, Zolowee, Suakarzee and Bassa Village.

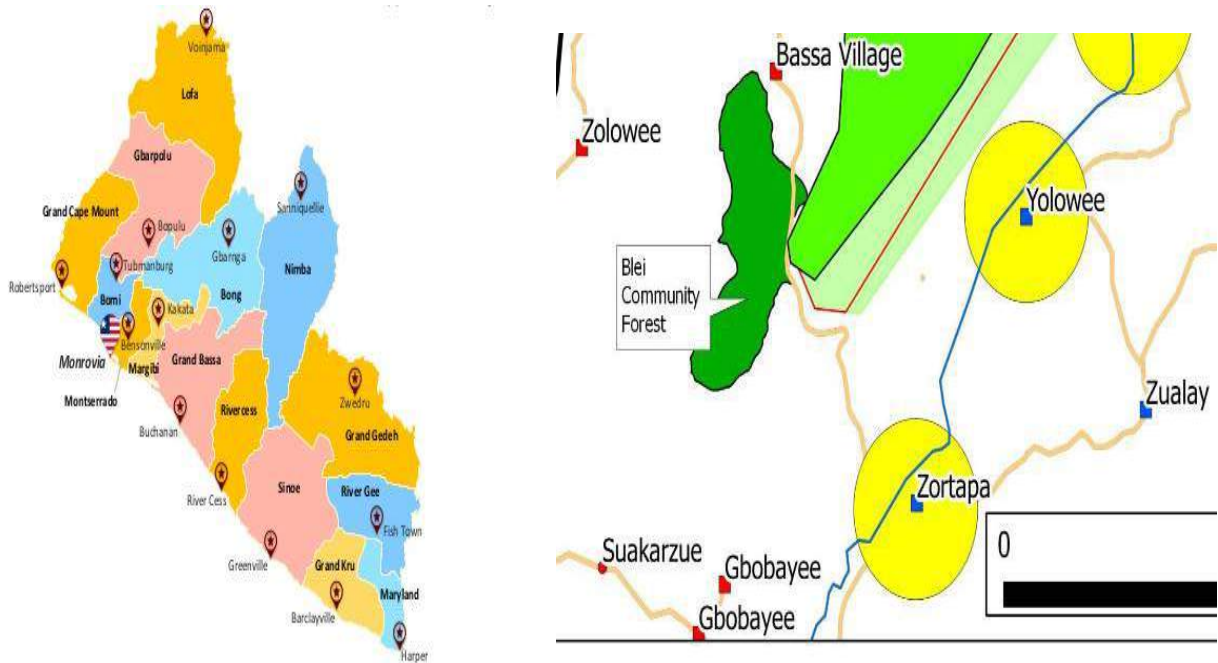


Fig 1: Geographical map of study area

3.3 Data collection and analysis

In this study different methods and techniques were used to complement each other and to generate data from both primary and secondary data sources.

Participatory methods, including Focus Group Discussion (FGD) and key informants interview at village level guided by questionnaires were used. Each village town chief was entreated to identify 10-15 community members for FGD comprising men, women and youth as well as some forest workers. Key informant interviews were used to capture local experience on the community's participation in the development of the forest management plan, management and monitoring of the forest, community's benefits received as well as the community's satisfaction from managing the Bleih Community Forest.

A questionnaire was used to assess community members' or stakeholders' view or knowledge on their participation in the Bleih Community Forest management. The questionnaire that was developed covered development of the management plan, management and monitoring of the forest, the level of participation and benefits received from managing the Bleih Community Forest. A semi-structured questionnaire was administered to 185 community members selected by a stratified random procedure from 6 selected villages surrounding the

forest. Specific subgroup within the population was selected: the youth, women, men, traditional leaders and local government actors, to observe the existing relationship between the subgroups.

The questionnaire was administered using a personal interview approach, which is recommended to avoid non-response bias (Harrison *et al.*, 2002). Data collected from the focus group discussion was analysed descriptively and data from the questionnaire was analyzed using the Statistical Package for Social Sciences (version 21) and the result presented in tables. Chi-square tests were applied in the analysis of data obtained in the study.

4. RESULTS

4.1. Demographic characteristics of respondents

The results shown in Table 1 represent the demographic characteristics of respondents in the study.

Table 1: Demographic characteristics of respondents

Demography	Respondents (%)
Sex	
I. Male	65
II. Female	35
Total	100
Age categories (years)	
I. 18-26	14.6
II. 27-35	13
III. 36-44	28.1
IV. 45-53	37.3
V. Above 53	7
Total	100
Level of education	
I. No formal education	28
II. Primary education	29
III. Secondary education	21
IV. Tertiary education	13
V. Vocational	9
Total	100
Marital status	
I. Married	62
II. Not married	38
Total	100

Role in the family		
I.	Household head	68
II.	Dependent	32
	Total	100
Origin of respondents		
I.	Native	80.5
II.	Nonnative	19.5
	Total	100
Occupation		
I.	Farmer	63.8
II.	Teacher	8.6
III.	Health worker	8.1
IV.	Driver	2.7
V.	Petty business	16.8
	Total	100

Field survey (November-December 2015)

The result shows that most of the respondents were males (65 %) with 35 % being female which confirms that some forest communities are dominated by males as reported by Alhassan (2010) and Ardayfio-Schandorf (2007). The respondents ages ranged from 18 to 53 years and above but the highest percentage of the respondents were from 36 to 53 and above (72%) and the youth being (28 %). Alhassan (2010) had demographic report on a similar work done in Ghana where most of them were within the ages of 35 to 54. This shows that most youth migrate to cities or towns for their education or engaged in other money fetching ventures. Most of the respondents' level of formal education was very low (no formal education-28 % and primary education - 29 %). This low level of education within communities might agree with the assertion that parents living in forest communities are not able to afford the cost of their children's education as reported by Alhassan (2010). It might also be that the essence of formal education is not known by residents.

Majority of the respondents (68%) were household heads and the rest (32%) are probably dependents. This may indicate that most accessible people in the communities are the heads of households. It implies that the household heads could contribute to decision making that affect or benefit the management of the forest reserve. Most of the respondents (80.5 %) were natives of the communities. The occupation of most of the respondent was farming (63.8 %) followed by those involve in petty businesses (16.8 %).

4.2. Local people's participation in the development of forest management plan

The respondents who participated mostly in the development of the management plan fall within 36 to 53 years and above (16.5 %) with only 0.5 % of youth (18 to 35) As many as 83 % of the respondents were not involved in development of the management plan. There was also lower female participation as revealed in Table 3. The observation connotes that majority of the forest-dependent community members are not given the platform to contribute to development of the action or management plan. Respondents' position in the community as defined by their social and economic role had effect on their participation in the development of the management plan of the forest. This observation may be contrary to the situation in Ghana where Alhassan (2010) reported that forest forums provide platform for forest-dependent communities to express their opinions for policy making since resource managers and policy makers have now realized the importance of involving forest-dependent communities in forest management planning and implementation.

Moreover, this report indicates that the recommendations on immediate local community's involvement in management plan development (Western, 1994 and Getz *et al.*, 1999) have not been fully implemented. This probably indicates that the needs and opinions of the indigenes or forest community members are not considered or respected. The Bleih Community Forest dependents had little local knowledge added to the development of the management plan because respondents had low participation. This may mean that only few individuals in the dependent communities are privy to the management plan. It was also observed that participation in the forest planning was not influenced by education, origin and position in the Bleih surrounding communities. This report disagrees with Owubah *et al.*, (2001), Chowdhury, (2004) and Alhassan, (2010) as they all reported that education is mostly associated with local people's participation in the development plans, in relations to creating awareness and educating the local people about the management plan. Again, they are of the view that education creates awareness on the essence of participation in natural resources, especially at the development of management plan stages where important decisions are taken.

4.3 Participation in forest management and monitoring

In the management and monitoring of the forest, only 16% of respondents participated as can be seen in Table 4. The few who participated were also within the age group of 36-53 years, implying that youth (18 -35 years) around the Bleih communities have been sidelined. This exclusion can contribute to forest loss since the traditional leaders (chief and priest of smaller gods), who can influence the people to enhance management and

monitoring have been excluded (Alhassan, 2010). The exemption of most of the people looks like the external imposition of few individuals who serve the interest of the central government or external forces (FAO, 2003) with no consideration of local authority and elites. This confirms what Asante (2005) reported that many developing countries do not mostly include local communities in forest use and management. This report also disagrees with Wall *et al.*, (2006) who made an assertion that younger people mostly participate more in the monitoring of forest activities as compared to the older people. Management of Bleih forest resources is similar to the situation in Ghana which is characterized to be extensively controlled by the government leaving out forest-dependent communities surrounding this resource (Eshun, 2008). It also implies that these forest-dependents have few formal responsibilities to participate in the management and monitoring of the forest (Mayers and Bass, 2004). Again, the male respondents (22 %) who participated were higher than the female respondents (5 %). When compared with demography of the people, the males (21.5 %) and females (5.7 %) that were part or aware of monitoring and management of the Bleih forest reserve are low. This report does not agree with Kugonza *et al.* (2009) who made assertion that communities' participation in forest resources management is not affected by gender. Generally, the devolution of Bleih forest reserve has not been structured well for the various communities to participate in its management. It is known that one third of Liberia's population live in forested areas and mostly depend on forests for food, housing materials (building poles and thatching), furniture, traditional medicines as well as healthy watersheds for fish and clean water. This implies local communities are important stakeholders in the forest issues therefore; their low level of participation is not acceptable.

4.4 Local people's satisfaction with community forestry

Respondents within the various age categories were not satisfied with the benefits from the management of the forest with 86 % not showing any satisfaction at all. The results (Table 5) show that the approach of participatory forest management in the Bleih forest has not been well appreciated by the individuals living around it. This presupposes that policies and regulations protecting the Bleih forest reserve cannot be reliable as non-government actors or forest dependents or primary stakeholders seem not to be satisfied. The low level of satisfaction may threaten the sustainability of the forest (Alhassan, 2010). Most of the respondents 89% did not show any satisfaction at all irrespective of their level of education, position in the community and marital status. This shows that though the central government has accepted the need to decentralize the control and management of the Bleih Community Forest resource to the local communities, the respondents are not satisfied because they are of the

view that they are not involved in the decision making process and have lost ownership of the forest an observation that is shared by Chirenjeet. *al.*, (2013)

4.5 Benefits received by the communities and individuals from participating in the forest management

Table 2: Benefits received from Forest Management by communities and individuals

Question	Respondents %
Benefits received by the communities	
I. Roads	4.9
II. Schools	0
III. Hospitals	3.8
IV. Any other	7.6
V. None	83.8
VI. Total	100
Benefits received by individuals	
I. Working with local government actors	7.5
II. Training in forest management	7
III. Opportunity to work with researchers	10.8
IV. None	74
V. Total	100

Field Survey (November-December, 2015)

The respondents are of the view they are not receiving any benefit from participating in the forest management either as individuals or communities, as promised. It was indicated that only a small proportion of the population are benefiting from forest management. This is contrary to the original intent of participatory forest management. This report agrees with most researchers that little benefit(s) (Amanor, 1999 and Owubah, *et al.*, 2001) are obtained by communities and individuals. It also indicates that the adoption of shared management (Murphree, 1994) and benefits which is central to PFM is not really experienced by the Bleih forest community members. Moreover, in a well-structured participatory forest management the local people are empowered (capacity building) to protect their forests from outside commercial interests. Furthermore, Ribot (2004) made an assertion that mostly the marginal and disadvantaged groups play greater role in natural resource management and benefit more from local resources. The lack of benefits by individuals and communities is an indication that the marginal and disadvantaged groups do not play much role in Bleih forest resource management.

5. CONCLUSIONS

1. Respondents did not fully participate in the management of the forest. Most of the respondents (83%) were not part of the management. The respondents who participated were mostly in the age range of 36 to 53, leaving out the youths. Male respondents also had better chance to participate in the management than females.
2. Respondent's education level, position in the community and respondents being natives of the community did not really influence their participation in the management of the Bleih Community forest. Most of the respondents (89 %) were not satisfied at all with forest management irrespective of their level of education and position in the community.
3. The communities have so far received no form of benefits, the only exception being a community that has a road constructed for it. Most individuals (74 %) receive no direct benefit(s) from forest management; the only beneficiaries identified were people who offer field assistance to researchers and local government actors and through that earn income.

6. RECOMMENDATIONS

1. FDA has to rethink the Forest Management plan that is, involving community members in every stage and also, making them to play key role in the management of the forest, so that they would argue what they want and how they want it done for a better understanding of the forest management.
2. The communities around the Bleih Community Forest should be given the opportunity to influence the implementation of the management plan of the forest.
3. Community should have the opportunity to discuss with FDA and forest managers the benefits they need.

7. REFERENCES

1. Abedi-Lartey, M., (2010). Establishing the Basis for Biodiversity Conservation in Sapo National Park.
2. Abbot, J. I. O., Thomas, D. H. L., Gardner, A. A., Neba, S.E. and Khen, M.W., (2001). Understanding the links between conservation and development in the Bamenda highlands, Cameroon. World Development 29: 1115-1136.

3. Alhassan, A. M., (2010). Analysis of Primary Stakeholders Participation in Forest Resources Management: The Case of the Krokosua Hills Forest Reserve, Ghana, Kwame Nkrumah University of Science and Technology, Kumasi, MSc. Thesis.
4. Amanor, K. S. (1999). "Restructuring Land Relations in Ghana: Forest food chains, timber and rural livelihoods. Uppsala: Research Report 108, Nordiska Afrikainstitutet.
5. Amanor, K. S. (2004). Natural and cultural assets and participatory forest management in West Africa. Working Paper Series No 75, USA: University of Massachusetts.
6. ArcelorMittal, 2010, Billiton terminate discussion to combine assets in Liberia and Guinea: Luxembourg, ArcelorMittal press release, September 8, 1 p.
7. Ardayfio-Schandorf, E., (2007). Gender Mainstreaming In Forestry in Africa: Ghana. Food and Agriculture Organization of the United Nations, Rome, pp. 1-33.
8. Asante, S.M. (2005). Deforestation in Ghana: Explaining the Chronic Failures of Forest Preservation Policies in Developing Country. University Press of America: New York.
9. Bathsheba, E. Y. (2011). An Assessment of the Service Delivery of GWCL / AVRL in the Sunyani Municipality. Kwame Nkrumah University of Science and Technology (KNUST).
10. Bhattarai, B., & Dhungana, S. (2005). How Can Forests Better Serve the Poor? A Review of Documented Knowledge on Leasehold and Community Forestry in Nepal. Kathmandu, Nepal.
11. Brick, P. D., Snow, D. and Van de Wetering, S.B. (eds.), (2000). Across the great divide: explorations in collaborative conservation in the American West. Washington, DC: Island Press.
12. Cestero, B., (1999). Beyond the hundredth meeting: a field guide to collaborative conservation on the West's public lands. Tucson, AZ: Sonoran Institute.
13. Chirenje, L. I, Giliba, R. A. and Musamba, E. B., (2013). Local communities' participation in decision-making processes through planning and budgeting in African countries, Chinese Journal of Population Resources and Environment, Volume 11, Issue 1, pages 10-16, DOI: 10.1080/10042857.2013.777198.
14. Chowdhury, S. A., (2004). Participation in Forestry: A Study of People's Participation on the Social Forestry Policy in Bangladesh: Myth or Reality?, Department of Administration and Organization Theory, University of Bergen, p. 112.
15. Dev, O. P., Yadav, N. P., Springate-Bginski, O., & Soussan, J. (2003). Impacts of community forestry on livelihoods in the Middle hills of Nepal. (Special issue on community forestry in Nepal.). Journal of Forest and Livelihood, 3(1), 64-77.



16. Eshun, F., (2008). Community Participation in the Management of Forest Resource: *A Means to Reduce Poverty for Sustainable Development the case of Kakum National Park*, pp.1-122
17. Forest Development Authority (2006) *National forestry policy and implementation strategy, Republic of Liberia*, Monrovia, Liberia.
18. Fearnside, P.M., (1989). Extractive reserves in Brazilian Amazonia, *Bioscience* 39(6): 387-393. Ferraro, P. J. and Kiss, A., (2002). Direct payments to conserve biodiversity, *Science* 298 (5599): 1718-1719.
19. Food and Agriculture Organization of the United Nations (FAO), (2003). *Communication and Natural Resource Management*, Rome.
20. Getz, W.M., Fortmann, L., Cumming, D., du Toit, J., Hilty, J., Martin, R. and Murphree, M., (1999). Sustaining natural and human capital: villagers and scientists. *Science* 283(5409): 1855-1856.
21. Gobeze *et al.*, 2009. Participatory forest management and its impacts on livelihoods and forest status: the case of Bonga forest in Ethiopia. *International Forestry Review*, 11(3), pp.346–358.
22. Ghate, R. (2003). Ensuring collective action in participatory forest management. Working Paper No.3-03, South Asian Network for Development and Environmental.
23. Harrison, S., Herbohn, J., Mangaoang, E., and Vanclay, J., (2002). *Socio-economic research methods in forestry: a training manual*. Cairns: Cooperative Research Centre for Tropical Rainforest Ecology and Management.
24. Kugonza, A., Buyinza, M., Byakagaba, P., (2009). Linking Local Communities Livelihoods and Forest Conservation in Masindi District, North Western Uganda, *Research Journal of Applied Sciences*, 2009 Volume: 4, Issue: 10-16, DOI: 10.3923/rjasci.2009.10.16.
25. Kyeremeh, F. K. (2015). *Community Participation in Forest Management of Kakum Conservation Area of Central Region. Statewide Agricultural Land Use Baseline 2015*. University of Cape Coast.
26. Mayers, J., and S. Bass. (2004). *Policy that works for forests and people: real prospects for governance and livelihoods*. Earthscan-International institute for Environment and development, London, UK.
27. Muller, S., (2003). Toward decolonisation of Australia's protected area management: the Nantawarrina Indigenous Protected Area experience. *Australian Geographical Studies* 41(1):29-43.
28. Murphree, M., (1994). The role of institutions in community-based conservation. In: *Natural connections: perspectives on community-based conservation* (eds. Western, D. and R.M. Wright). Pp. 403-427. Washington, DC: Island Press.
29. Owubah, C.E., Le Master, D.C., Bowker, J.M., Lee J. G. (2001). Forest Tenure Systems And Sustainable Forest Management: the case of Ghana. *Forest Ecology and Management* 149(2001), pp. 253-264.

30. Paul, S. (1987). Community participation in development projects. Washington D.C: World Bank.
31. Ribot, J. C., (2004). Waiting for democracy: the politics of choice in natural resources decentralization, Washington, DC: World Resources Institute.
32. Sayer J.A., and B.M. Campbell. 2004. The Science of Sustainable Development Local Livelihoods and Global Environment. Cambridge university press. Cambridge, UK.
33. Thomson, M., (1993). Report on an informal market survey to identify illegal extraction of indigenous wood products from the south-west Mau and Trans Mara forests. Nairobi: Kenya Indigenous Forest Conservation/Forest Department, Ministry of Environment and Natural Resources.
34. Turyahabwe, Nelson, Jacob Godfrey, MnasonTweheyo, and Susan Balaba."Collaborative Forest Management in Uganda: Benefits, Implementation Challenges and Future Directions", Sustainable Forest Management - Case Studies, 2012.Ministry of Environment and Natural Resources.
35. UNDP (2006)National Human Development Report 2006 Liberia Mobilizing Capacity for Reconstruction and Development,Monrovia: UNDP Liberia.
36. Wall, B. W., Straka, T. J., and Miller, S. E. (2006). An Econometric Study of the Factors Influencing Participation in Urban and Community Forestry Programs in the United States Arboriculture & Urban Forestry 2006. 32(5):221–228.
37. Warah, S., (2008). Participatory management of forests and protected areas: a trainers' manual. Bangkok: Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC).
38. Weber, E., (2000). A new vanguard for the environment: grass-roots ecosystem management as a new environmental movement. Society and Natural Resources 13(3): 237-259.
39. Wells, M., Brandon, K. and Hannah, L., (1992). Parks and people: linking protected area management with local communities. Washington, DC: World Bank.
40. Wenner, M. (1998).Public Participation in Forestry in Europe and North America. Report of the Team of Specialists on Participation in Forestry. Geneva. Retrieved from <http://www.unece.org/fileadmin/DAM/timber/docs/publications-other/report-participation.pdf> .
41. Western, D., (1994). Ecosystem conservation and rural development: the case of Amboseli. In: Natural connections: perspectives on community-based conservation (eds. Western, D. and R.M. Wright). Pp. 161-162. Washington, DC: Island Press.
42. Yirdaw, E. 2002.Restoration of the native woody-species diversity, using plantation species as foster trees, in the degraded highlands of Ethiopia.Doctoral thesis.University Helsinki Tropical Forest Re.24.

Table 3: Respondents’ participation in the development of forest management plan

Respondents’ characteristics	Participation in Development of Management Plan					
	Yes		No		Total	
Age	No of Respondents	%	No of Respondents	%	No of Respondents	%
18-26	0	0.00	27	100	27	100
27-35	1	4	23	96	24	100
36-44	8	15	44	85	52	100
45-53	20	29	49	70	69	100
Above 53	3	23	10	77	13	100
Total	32	17	153	83	185	100
Sex						
Female	4	6	61	94	65	100
Male	28	23	92	77	120	100
Total	32	17	153	83	185	100
Position in the community						
Traditional leaders	1	12.5	7	87.5	8	100
Local government actors	12	86	2	14	14	100
Forest stewards	5	20	20	80	25	100
Ordinary community members	14	10	124	90	138	100
Total	32	17	153	83	185	100
Origin of respondents						
Natives	27	18	132	82	149	100
Non-native	5	14	31	86	86	100
Total	32	17	153	83	185	100
Level of education						
No formal education	8	15	45	85	53	100
Primary education	10	18.5	44	81.5	54	100
Secondary education	10	25	30	75	40	100
Tertiary education	4	17	20	83	24	100
Vocational	0	0.00	14	100	14	100
Total	32	17	153	83	185	100

Field survey (November/December 2015)

Table 4: Respondents’ participation in the implementation and monitoring of forest management

Respondents ‘characteristics	Form part of the management and monitoring of the forest					
	Yes		No		Total	
Age	No of Respondents	%	No of Respondents	%	No of Respondents	%
18-26	0	0.00	27	100	27	100
27-35	1	4	23	96	24	100
36-44	10	19	42	81	52	100
45-53	16	23	53	77	69	100
Above 53	2	15	11	85	13	100
Total	29	16	156	84	185	100
Sex						
Female	3	5	62	95	65	100
Male	26	22	94	78	120	100
Total	29	16	156	84	185	100
Position in the community						
Traditional leaders	0	0	8	100	8	100
Local government actors	7	50	7	50	14	100
Forest steward	11	44	14	56	25	100
Ordinary community member	11	8	127	92	138	100
Total	29	16	156	84	185	100
Origin of respondents						
Native	25	17	124	83	149	100
Non-native	4	11	32	89	36	100
Total	29	16	156	84	185	100
Level of education						
No formal education	8	5	45	85	53	100
Primary education	10	18.5	44	81.5	54	100
Secondary education	7	7.5	33	82.5	40	100
Tertiary education	4	17	20	83	24	100
Vocational	0	0.00	14	100	14	100
Total	29	16	156	84	185	100

Field survey (November-December 2015)

Table 5: Respondents' satisfaction with forest management benefits

Respondents 'characteristics	Satisfied with benefits					
	Yes		No		Total	
Age	No of Respondents	%	No of Respondents	%	No of Respondents	%
18-26	1	4	26	96	27	100
27-35	1	4	23	96	24	100
36-44	5	10	47	90	52	100
45-53	11	16	58	84	69	100
Above 53	2	15	11	85	13	100
Total	20	11	165	89	185	100
Sex						
Female	5	8	60	65	65	100
Male	15	12.5	105	92.5	120	100
Total	20	11	165	89	185	100
Position in the community						
Traditional leaders	2	25	6	75	8	100
Local government actors	5	36	9	64	14	100
Forest steward	3	12	22	88	25	100
Ordinary community member	10	7	128	93	138	100
Total	20	11	165	89	185	100
Origin of respondents						
Native	18	12	131	88	149	100
Non-native	2	6	34	94	36	100
Total	29	16	156	84	185	100
Level of education						
No formal education	7	13	46	87	53	100
Primary education	9	17	45	83	54	100
Secondary education	3	7.5	37	92.5	40	100
Tertiary education	1	4	23	96	24	100
Vocational	0	0	14	100	14	100
Total	20	11	165	89	185	100

Field survey (November-December 2015)

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