

PARTICIPATORY FOREST RESOURCE GOVERNANCE:

The Mount Cameroon Experience

Nkemtaji Moses Nchotaji

M. Sc (Env. Sc.) M. Phil (Dev. Geo)

Jovash Initiative for International Development

nkemtajims@yahoo.co.uk

Paper to be presented at the 2010 Berlin Conference
On the Human Dimensions of Global Environmental Change:
Social dimensions of environmental change and governance
8-9 October 2010

Stream: Governance Institution and Policy Integration

Abstract

After the Rio Summit in 1992, Cameroon and most other countries in Africa adopted principles that have given communities legal rights in the management of natural resources. Mount Cameroon Region presents a typical example where this method of management has been introduced by the Ministry of Forestry and Wildlife in collaboration with International Agencies like GTZ and DED. These institutions introduced ecotourism in 1998 as part of the Mount Cameroon Project (MCP) aimed at conserving biodiversity and improving the livelihood of the communities in this area. Hunters and *prunus africana* (valuable medicinal plant demanded by pharmaceutical firms) harvesters are among the important actors that have been included in the new management structure. Primary data derived from interviews and questionnaires were used to evaluate the extent to which this management mechanism meets the goal of sustainable development. The theory of New Institutional Economics (NIE) by Ostrom, which outlines eight principles that guarantee resource appropriation at the local level, was used to guide the study. The results indicate that the behavior of hunters and *prunus Africana* harvesters have changed in favor of conservation through collaborative law enforcement. Livelihoods have been improved as well with the introduction of income-generating activities (bee farming, snail farming and piggery), which have indirectly reduced the pressure exerted on natural resources. However, the study concludes that participatory governance initiatives result in fragile and conditional successes. If poverty reduction is not fully addressed, actors are unlikely to pursue the goal of sustainable development in Mount Cameroon. The theory of NIE thus provides a conditional understanding of natural resource management for sustainable development that is dependent on the wider context of development.

Key words :ecotourism,conservation community participation,development

Introduction

Natural resource management has become a crucial issue in today's world as mankind feels lots of pessimism in the nearest future as a result of environmental degradation. The entire earth depends on the natural environment for survival. The forest for instance provides a multiplicity of functions that supports the socio cultural as well as the economic life of man (Ekane 2000). The forest provides fuel wood, timber, cooking oil, bush meat, agricultural inputs and medicinal products. Cameroon for example is one of the most fortunate countries endowed with a variety of natural resources which supports 70 % of the population in the primary sector of the economy (Neba 1997). With a population growth rate of 2.2% (World fact book, 2007), one will definitely doubt the faith of these natural resources in a near future. Poverty and economic hardship is aggravating the situation whereby the population has nothing to tend to, than their local environment to exploit resources indiscriminately to make ends meet. Human activities have affected the environment and biodiversity in a number of ways which include indiscriminate exploitation of forest resources with the resultant destruction of habitat as well as highly endangered species of plant and animals that need immediate conservation (Lambi 2001). Unfortunately the tropical forest which extends to Cameroon, is a victim of such calamity; deforestation which is estimated to about 0.6 % per year between 1990 and 1995, with the major causes such as, population growth and shifting cultivation (Neil et al 2001), and the rates of deforestation has been increasing more and more in recent years coupled with the indiscriminate exploitation by the logging companies. One will realise that both the neo-Malthusian and the pluralist discourses on forest degradation could be factors that are very important in analysing the causes of deforestation in Cameroon.

Environmental issues have been discussed at the International scene from 1972 in Stockholm during the United Nations Conference on the Human Environment, right up till date with the most recent United Nations Climate Change conference held in Bali-Indonesia in December 2007. Within this interval was the most remarkable UN Conference on Environment and Development that was held in Rio de Janeiro- Brazil in 1992, which gave a new direction towards environmental management with the adoption of Agenda 21. This broadened the scope of environmental management to involve all stakeholders, governments, the indigenous communities, NGOs and Common initiative groups. Integrated natural resource management was therefore one of the outcomes as recommended by the Agenda 21 on the UN Convention on Environment and Development. After this

Convention, many countries in Africa including Cameroon came up with a new Forestry Legislation to include most of the issues outlined by the Rio Summit. In 1994, Cameroon undertook a new forestry reform that gave a new orientation towards natural resource management to include all stakeholders including the local communities unlike in the past where the state was the sole custodian in the management regime. Community Participation is therefore a new system of management which has always been sidelined in the management of natural resources in the past. Mount Cameroon Ecotourism Organisation (Mount CEO supported by GTZ), is a NGO, which is exploring a participatory approach that has integrated and empowered the community in the management process. They introduced ecotourism as a management strategy to involve resource users such as hunters and *prunus Africana* (valuable medicinal plant) harvesters to become active in the management process. The aim of this strategy was to legalise the exploitation of resources in a sustainable manner through law enforcement and to improve on the livelihood of the people with the introduction of income generating activities.

In this paper, I will explore this strategy and critically examine the extent to which the aforementioned objectives have been achieved. The theory of New Institutional Economics (NIE) by Ostrom will be used as the bases of analysis. The paper ends with some recommendations for policy makers on important factors to consider to make participatory forest resource governance more applicable.

Background

Cameroon: A Brief Overview

Cameroon lies between latitude 2° and 13° north of the equator and longitudes 8°30' and 16°10' east of the Greenwich Meridian (Neba 1997). It is located in the heart of Central Africa, between Lake Chad in the north and the Atlantic coast in the south. It has borders with Equatorial Guinea, Gabon and Congo to the south, the Central African Republic and Chad to the East and Nigeria to the West. Cameroon covers a total area of 475,442 km² from the Atlantic Ocean to Lake Chad, stretching from equatorial Africa to the edge of the Sahara region. The country is rectangular in shape with a North-South length of 1,400 km and East-West width of 800 km (Neba 1997). Cameroon, with its coastal plains, low plateaus, and volcanoes in the south; Adamawa plateau at an altitude of 800 to 1,500 m in the centre; semi-desert savannah and mountains that look like the surface of the moon (*Mandara*) in the north, reflects all the geographical diversity of the African continent.

The climate is humid and tropical in the south and dry in the north. The rate of precipitation reduces as one move northwards. The different climatic patterns has favored the development of great rivers (Sanaga, Wouri, Nyong, Manyu) flowing through luxuriant, dense forests that provide a habitat for a multitude of plant and animal species. Cameroons main exports are crude oil and petroleum products, timber, cocoa, aluminum coffee and cotton.

The population of Cameroon is estimated at 16 million with an average population density of 32 persons/km². Except for pygmy peoples in the southern equatorial forest, the more than 250 tribes in the country constitute strands of Bantu and semi-Bantu speaking who gradually settled in the territory since 18th Century migratory currents and wars in West and Central Africa (Fanso 1989). The modern Republic of Cameroon was formed in 1961 from the merger of the former French Cameroon and part of British Cameroon. Although having been claimed by Germany as the Kamerun Protectorate in 1884, British and French troops forced the Germans to leave Cameroon after the First World War. After the war, a League of Nations divided Cameroon in to British administrative zone (20 % of the land, divided into Northern and Southern Cameroons) and a French one (80 %).

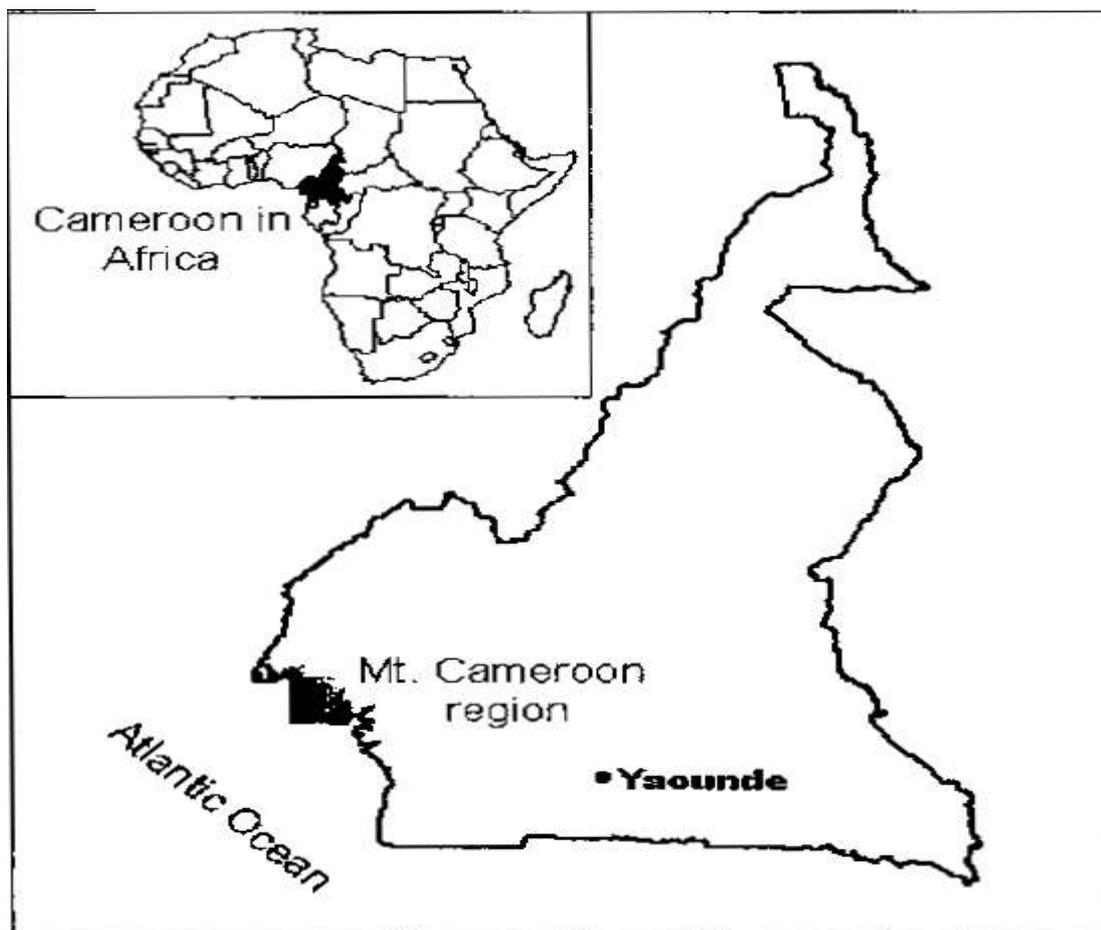


Fig 1:Location of Mount Cameroon Region (Source MCP)

Mount Cameroon Area

Mount Cameroon, located close to the Atlantic coast is found in the South West Province of Cameroon. It is the highest mountain in West and Central Africa with a height of 40,100 m. above sea level. The mountain forms part of a volcanic chain known as the Cameroon volcanic line (Ekane 2000). The area is an active volcano with young soils which are rich in nutrients. Since the colonial epoch in the 19th century, moderate explosive and effusive eruptions have been recorded from both the summit and flank vents. This includes recorded events from 1902, 1922, 1949, 1959, 1982, 1999 and 2000. During the most recent eruptions, lava flow burnt and destroyed the forests killing some species of wildlife which were already declared endangered in the region. As mentioned earlier, these soils which are recent in volcanic origin are very fertile (Neba 1997). This explains why the Agro industrial company, Cameroon Development Corporation (CDC) has established most of its plantations (rubber, palm nuts, banana, and tea) in this area occupying with vast expanse of land totaling 43,413 hectares. The proximity of this region to the Atlantic Ocean gives it a very good and favorable climate and strong influence of orographic rainfall. Rainfall occurs mostly on the windward side of the slope which has a very high mean annual rainfall of about 10,617 mm/year near Debundscha. A short dry season occurs between December and February; the humidity remains high at about 75-80% (Watts 1994). The rainfall gradient and the great variation of climatic condition around the mountain has influenced the vegetation type and plant growth. The relatively unbroken sequence of vegetation from evergreen forest at sea level, to sub-alpine vegetation near the summit, makes Mount Cameroon unique within West Africa. The high levels of biodiversity are internationally recognized with at least 42 plant species and two bird species endemic to the area. There are also three species of endangered primate and a small population of elephant (Watts 1994). As a result of this tremendous biodiversity, in 1994, Mount Cameroon was listed as a centre of plant diversity by the International Union for the Conservation of Nature (IUCN) and the World Wildlife Fund (WWF) (Pouakouyou 2003).

The area is extremely rich in fauna diversity. The conservation status of many species of wildlife in the region is still to be determined. Three endemic primate species are considered endangered in Mount Cameroon. These include, the Drill (*Mandrillus leucoplaeus*) Preuss Guenon (*Cucopeteyus preussi*) and Red-eared Guenon (*Cercopithecus, erythotis*) (Tanyi 1998). The region also harbours the most important population of Preuss Guenon (Olsen et al 2001). Hunting, logging and agricultural activities have affected the lives of a variety of

biodiversity in the area. The Ministry of Forestry and Wildlife launched the Mount Cameroon National Park in January 2009 to further strengthen the protection of wildlife and other flora.

Socio-economic activities in this area include, agriculture, hunting and illegal wildlife harvesting and touristic activities. Both subsistence and commercial farming dominate in this area. This area is one of the breadbaskets in Cameroon. The largest Agro industrial Company (CDC) which is the second highest employer after the state is located in Mount Cameroon. Only one-third of its 60,000 hectares of land in the Mount Cameroon area, which is leased from the government, are developed as rubber, palm oil, banana and tea plantations. The remainder is under either through small-scale agriculture (15,000 ha) or lowland forest (25,000 ha) (Mount Cameroon Project, 2001). Hunting is another important activity which is done for consumption and commercial purposes. Different types of hunters and wildlife collectors operate in the Mount Cameroon Region; indigenous subsistence hunters, local hunters and commercial hunters. The area is a very important tourist hot spot with many touristic attractions ranging from historical monuments like the Prime Ministers Lodge and other remnants of German colonization which are located particularly in Buea (former German capital). The variety of biodiversity has facilitated the creation of a botanic and zoological garden, both located in Limbe. Touristic activities in this area is coordinated by Mount Cameroon Ecotourism Organization (Mount CEO) which is an NGO created and financed by the Mount Cameroon Project in corporation with the German Development Service (GTZ, DED).

There is a marked diversity in the social structure and ethnic composition of the population. Although the indigenous Bakweries are outnumbered by migrant workers who were recruited for the plantations from other parts of Cameroon and Nigeria, they present a very rich culture. The culture also plays an indirect role in natural resource management in the area. The population is about 300,000 inhabitants and is made up of indigenous Bakweri, Bamboko and Balondo tribes (Ekane 2000).

Research Methodology

The major cause of biodiversity loss in the Mount Cameroon Region includes; high human population growth, economic decline and increase in poverty as well as rampant exploitation of the country's natural resources. It is assumed that, these factors are responsible for the loss of biodiversity in the area. The problem is to examine the extent to which the inclusion of

stakeholders in the management structure could lead to better management of common pool resources and improve on the livelihood of resource users (hunters) at the same time. In this article, some of the intervention mechanisms taken by Mount Cameroon Project (MCP) to arrest the wildlife decline have been examined. The impact of participatory governance of the resources on the lives of the people has also been analyzed critically. This article relies on primary data conducted by the author from December 2008 to January 2009 as part of the completion of his M. Phil thesis in Development Geography financed by Oslo University. Secondary data relied on the use of literature from online journals, government policy documents from the South West Regional Delegation of Forestry and Wildlife (Buea) Cameroon, and other published and unpublished documents on the impacts of participatory forest resource governance in Mount Cameroon. Primary data collection involved three category of informants; hunters, Village Ecotourism Committee (VEC) members and business owners including local people. A representative sampling of 15 interviews were conducted in each category. Semi structured interviews and questionnaires were administered across these categories. Direct observation also constituted an important source of data collection in my research. This was carried out by visiting development projects like community halls in Boteva and Mepanja Villages and Bokwaongo water project constructed with proceeds from the ecotourism business. Moreover, projects initiated by GTZ which is aimed at alleviating poverty such as bee farms and snail farms were also visited.

Theory and Conceptual Framework

The concept of New Institutional Economics on natural resource management focuses on the methods in which resource users collectively organize themselves for sustainable exploitation of resources. It also looks at conditions that leads to unsustainable exploitation of natural resources such as free-riding and provides models for sustainable management. It also aimed at examining how inter-dependent resource users organize and govern themselves to continuously achieve benefits (Ostrom 1990, cited in Sackmen 2005).According to Ostrom (2002), users adopt contingent rather than independent strategies because CPR appropriation is dynamic. Appropriation is defined as the ability to use, manage, dispose a resource and exclude others from using it (Ostrom 2002).Appropriators calculate expected benefits, enforcement costs, internal norms and discount rates of CPRs to determine their strategies which result in institutional outcome. New Institutional Economics holds that corporation and collective action is necessary when resource users depend on a CPR as a source of livelihood

(Sackmen 2005). Organization and commitment is an imperative for cooperation to be possible in order to achieve the desired goals of unsustainable exploitation as well as livelihood benefits. According to Ostrom (1990), the main problem of organizing appropriators is the transition from situations where appropriators act independently to one of coordinated strategies to enjoy increasing benefits or limit joint harm. Moreover, (Ostrom 1990) lists eight design principles in her work on community-level governance of resources. According to (Agrawal 2002), the design principles by Ostrom is an essential element or condition that helps to account for the success of these institutions in sustaining the CPR and gaining the compliance of generation after generation of appropriators to the rules in use. The principles that are important in designing the institutions for sustainable natural resource use according to Ostrom (1990) include:

- 1) Well defined boundaries
- 2) Effective monitoring
- 3) Graduated sanctions
- 4) Conflict resolution mechanisms
- 5) Collective choice arrangements by involving individuals affected by operational rules in rules modification.
- 6) Minimal recognition of rights: The rights of resource users to outline their own rules and regulations should be recognized by external authorities like the state and other agencies.
- 7) Ensuring proportional equivalence between costs and benefits of appropriators.
- 8) Nested enterprises: The appropriation, provisioning, enforcement, conflict resolution and governance activities are organized into multiple layers of nested enterprises.

Although Ostrom outlined the above principles, she however emphasized that these principles do not provide a blueprint to be imposed on resource management regimes. The role of the state is also an essential element in CPR management, even if individuals can organize themselves for sustainable management of natural resources. In cases where free riding cannot be controlled, only the state can impose sanctions on defaulters such as the payment of fines or serving jail terms. Agrawal (2002) further criticized Ostrom for paying limited attention to the external social, institutional and physical environment. She did not remark on demographic issues in her conclusions and she put equally little emphasis on market related demands that may make local demand pressures relatively trivial. It is important to note that increases in population and changes in demographic pressures through local changes or migration may affect the ability of users to follow existing rules and norms for resource management.

Ecotourism and Natural Resource Governance in Mount Cameroon Region

This section examines the participatory approach of the management system of ecotourism in Mount Cameroon Region in the management of natural resources while improving on the livelihood of the local people. It outlines the steps taken by Mount Cameroon Project (MCP) and Mount Cameroon Inter Communal Ecotourism board (Mount CEO) to regularize the exploitation of resources among hunters and *Prunus Africana* (valuable medicinal plant) harvesters to prevent future depletion of their resources. This strategy was undertaken by introducing alternative income generating activities to improve their livelihood and designing a wide range of institutions in the management process.

Legal and Institutional Framework

The main actor of ecotourism development in Mount Cameroon Region, is the Mount Cameroon Inter communal Ecotourism Board (Mount CEO). It is a non-profit making NGO. Mount CEO was created and funded in July 1999 by the German Development Organizations (GTZ and DED), in collaboration with the Ministries of Environment and Tourism in Cameroon. According to the convention signed among the parties, all tours to the summit of Mount Cameroon and other areas of the region must be organized through Mount CEO. The development and promotion of ecotourism as an instrumental tool for biodiversity conservation and improvement of livelihood for the local population were the main goals of establishing Mount CEO. They were also to be in charge of providing services such as, trained guides and porters who accompany tourists hiking to the top of the mountain.

The administrative structure of Mount CEO is made up of a manager, technical adviser, stores accountant with an office assistant. It operates at two levels: the regional level and the local level. The regional level is made up of Board of Directors who formulates the policy while it is complemented at the local level with Village Ecotourism Committees (VEC) coordinating their own ecotourism activities.

Mount CEO has a concept of benefit sharing mechanism where guides and porters are paid directly after providing the services needed by the tourists. A supplementary fee is included in the bill which is directed to the contribution of the stakeholder fund. The benefits are therefore felt at three levels, namely: village development fund, hunters working as guides and porters as well as through site activities. Mount CEO took necessary measures organizing hunters and *prunus africana* (a medicinal plant) harvesters into unions to integrate them in the management of wildlife and *prunus africana* which has witnessed some degree of decline in recent years.

Participatory Framework of Wildlife Management in Mount Cameroon Region

According to Akumsi (2001), the main actors in wildlife management in the MCR include; MCP, local communities (hunters and trappers) who supplement their standards of living through hunting, MINEF and the Cameroon Development Corporation (CDC).MCP is working at all levels with different stakeholders to arrest the wildlife decline in this region. Based on the faunal inventory, Mount CEO has drawn a wildlife management strategy as a roadmap to mitigate hunting in this region. There was a need for intervention since it was becoming a problem to both hunters and conservationists. This was also based from the various project work in the area by MCP. Evaluating the reasons for wildlife decline implies that, the reduction in forest cover has lead to loss of animal habitat which provides home to diverse wildlife population, including three globally endangered primates, endemic to the Cameroon faunal region: Drill, Preus guenon and Red-eared guenon. Their conservation is therefore imperative and will only be possible if their forest is maintained and sustainable quota implemented (Tanyi 1999).Based on this situation, MCP/Mount CEO came out with a planned intervention as a step to reverse the situation while improving the livelihood of the community.

Community Participation

One common definition of participation presents it as a process through which different groups in a community influence and share control over development initiatives and the decisions and resources that affects them(Mascarenhas et al 1996).According to Jones (1999)“Community based approach to natural resource management – *wildlife*, has the potential to provide an umbrella for integrated natural resource planning and management to local communities as well as an institutional model for other sectors”. An integrated strategy involves a diversity of factors like gender, environment, cultural and socio-economic imperatives. The forestry sector of Cameroon has gone through a series of legislative reforms since 1974 till present with alternative approach to forest resource management. The most recent forestry, wildlife and fishery regulations were adopted and laid down in the 1994 Forestry Law. One of the innovations was the introduction of Community Forestry. Communities therefore should be given the responsibility to manage resources sustainably as well as the right to exercise power, over them and accrue significant benefits resulting from that use and management (Ribot 1999). After the Earth Summit in 1992, participatory approach to natural resource management-*wildlife* has constituted a major innovation and reform in the Forestry and Wildlife Regulations in most countries in Africa including Cameroon.

Involving local communities for natural resource management *e.g. wildlife* is a prelude to achieve sustainable development as stated in section III chapter 26 of the Rio Declaration. It affirms that the rights and role of indigenous people should be recognised and strengthened to enable them have a say in the management of natural resources like *wildlife* within their communities. This was made obligatory during the 1994 forestry reforms in Cameroon which has forced many forestry related programmes in the country to strive to achieve this objective. The basic tenet of community based approach is that all groups must be involved in all phases of decision making processes. Advocates of Community Based Natural Resource Management (CBNRM) often use the principle of participation to argue that CBNRM includes natural resources or biodiversity protection by, for, and with local communities (Western et al.1994) Where local communities are not participating, these advocates would assert that, their needs and concerns are not addressed.

Regulations Covering Usage Rights

Article 8 (1) of the 1994 forestry law governs usage rights that apply to indigenous populations. In effect, the resident population enjoys the right to exploit all forest products-animal and fish-apart from protected species, for personal use. The article raises the following points:

- i) Every inhabitant of the forestry zone is entitled to usage rights;
- ii) Protected species alone are, in principle excluded from the application of usage rights.
- iii) Products taken in accordance with usage rights, must be destined for personal use, all commercial use is therefore prohibited.

Hunting Regulations

The law on wildlife and its text of application identifies two types of hunting; Sport hunting and traditional hunting. The law authorises traditional hunting for small reptiles, rodents, birds and others listed in Class C, but big games like elephants, chimps, drills and other monkeys are exempted. Traditional hunting is permitted only with the use of local plant materials and the kill is for personal consumption and may not in any case be sold. It is governed by Article 24 which sets out the structure of application of the regulations on wildlife guaranteeing the freedom to carryout traditional hunting throughout the territory except in the protected areas where it is subject to restrictions under the requirements of the management plan. The decree reiterating the law states that: *the products resulting from traditional hunting are intended exclusively for eating purposes and cannot in any circumstances be sold.* This requirement therefore lodges traditional hunting within the context of usage right. This form of hunting today has been modified with the use of wire snares and modern guns.

Sport hunting is today more common in the MCR with the use of more sophisticated weapons (modern rifles and baits) which is increasingly posing a serious threat to biodiversity. A hunting permit is required for commercial hunting. To be able to have a hunting permit, you must be able to have a gun authorization first.

Planned Intervention by Mount CEO

The main area of activity by Mount CEO is to provide a legal framework within which the hunters can operate within the law and be motivated enough to take over the responsibility of managing the resource for their current and future needs. Moreover hunter user groups needed to be organised and monitor their activities if a sustainable off take quota is to be implemented. The objective for intervention was therefore to:

- a) Create and strengthen village-based institutions in charge of *wildlife* management, the Wildlife Management Committees (WMC).
- b) Develop internal rules and regulations that can support sustainable management efforts based on local realities;
- c) Define community hunting area and sustainable off take;
- d) Develop a local classification system of the different species based on the Mount Cameroon ecosystem level of endangerment.
- e) Develop a local and participatory monitoring system with all stakeholders.

Socio-Cultural Level Intervention:

This area constitutes the institutions and stakeholders targeted for sustainable natural resource management. The purpose of this intervention are; to enhance links between stakeholders and user groups so that they can establish a working and constructive relationship that favours sustainable wildlife management, and to provide capacity building to wildlife groups to improve their efficiency in wildlife management.

Institutions	Reasons
Local MINEF	Target to produce a participatory local version of the wildlife law that is acceptable by the local people and reflects local realities.
Local administration	With respect to recognise traditional weapons (Dane guns) used in hunting.
Traditional Committees/Councils	To provide moral guidance for the wildlife committees

Farmers	To link with trappers in tracking farm pests
CDC	To limit expansion into priority biodiversity areas/limit forest clearance.
Pepper soup sellers	Tertiary users of bush meat. To sell only non protected animals and to buy from registered hunters only.
Hunters/Trappers	Primary users. Targeted to develop Internal rules and regulations.
MINAGRI	To address farm pest problems.
Schools	Environmental education.

Targeted institutions of wildlife management (Adapted from Tako 1999)

Resource Level Interventions

SCIENTIFIC NAMES	COMMON/LOCAL NAME	REMARKS
Protection CLASS "A" ANIMALS: Endangered (Complete)		
<i>Loxodonta Africana cyclotis</i>	Elephant/njoku	
<i>Pan troglodytes</i>	Chimpazee/Ewake	
<i>Galogo (Galagoides) demidovii</i>	Bush baby/Lunde	
<i>Arctocebus calaberansis</i>	Golden potto/Lyombo	
<i>Papio (Mandrillus) leucophaeus</i>	Drill/Sumbo	
<i>Perodicticus potto</i>	Bosman potto/Combatta	
<i>Cercopithecus preussii</i>	Preuss Guenon/Blue Kanass	Class "B" animal in the national classification system.
<i>Hylochoerus meinertzhagent</i>	Bush Pig/Nguanya	Class "B" animal in the national classification system
CLASS "B" ANIMALS:Partially protected (can be hunted subject to the grant of a hunting permit)		
<i>Tragelaphus scriptus</i>		
<i>Cephalophus ogilbyi</i>		
<i>Cephalophus dorsalis</i>		
<i>Viverra civetta</i>		
<i>Cercopithecus erythrotis</i>		Class "C" animal in the

		National Classification system.
<i>Cercocebus torquatus</i>		Class “C” animal in the National Classification system.
<i>Manis tricuspis</i>	Tree Pangolin/Katta beef	Class “C” animal in the National Classification system.
<i>Manis tetradactyla</i>	Long tail Pangolin/Katta beef	Class “C” animal in the National Classification system.
Class “C” ANIMALS:hunted without problem for domestic use,but hunting permit required for commercial use.		
<i>Cercopithecus mona</i>	Mona monkey	
<i>Cercopithecus nictitans</i>	Dark-white nosed monkey	
<i>Cercocebus sp.</i>	White collared mangabey	
<i>Cephalophis monticola</i>	Blue duiker/frutambo	
<i>Atherurus Africana</i>	Porcupine/ngombo	
<i>Cricetomys gambianus</i>	Giant rat/phoo	
<i>Thryonomys swinderianus</i>	Cane rat/cotty (cutting grass)	
<i>Nandinia binotata</i>	Two spotted palm civet	

Local classification of animals according to degree of endangerment. Adopted from Tako (1999)

The first group of resources and species targeted are the Class A animals Elephant, chimpanzee and drill are protected nationwide since Cameroon is also party to the Convention on International Trade in Endangered species in wildlife and fauna (CITES).Elephants for example were hunted in the past for Ivory trade causing a tremendous decline today to less than a hundred (Pouakouyou 1996).These category of animals also have very low litter size, long gestation period and long reproductive cycle. They also play very important roles in seed dispersal, probably, 30% of coastal trees are dispersed by elephants. More species that are also threatened locally include *Cercopithecus preussii* (*preus guenon*) and *Hylochoerus menertzhageni*(*Bush pig*), were placed under class A for complete protection(Tanyi 1999)

Class B is partially protected but could be hunted on the grounds that the hunter must be a holder of a hunting permit authorised by the state. They are managed using the permit system and the implementation of the sustainable off-take quota. Class C animals have the least protection, therefore hunters and trappers are advised to hunt mainly these classes of animals. These animals provide links between hunters and farmers and the main source of income to hunters because of

the high degree of catch. Based on this classification, the species that are now at the verge of extinction could be guaranteed some degree of conservation.

Forest cover was also given greater consideration in order to limit mainly CDC and small holder expansion of their plantation into areas of high biodiversity for plants and reduction of animal habitat. The rapid botanical survey (Tchouto et al 1998) showed that the low land forest of the West Coast is a priority area for conservation because of its high plant diversity. The specification as outlined at the above table on the different class of animals was a very important step on the resources that were endangered and endemic on this region. *Prunus Africana* was another resource whose intervention was simultaneously carried out with wildlife harvesting.

NON FOREST RESOURCE BASED DEVELOPMENTS

This constituted an important strategy in the management wildlife and *prunus Africana* in the MCR. There was a need to provide alternatives to livelihood options in order to mitigate hunting. These were mainly in the area of income generating activities, non-consumptive use of the forest and supporting social infrastructure with communities and general sensitisation in forest conservation issues. Income generating activities that were introduced in the area include: modern bee keeping, snail farming and livestock rOrganisations that have been at the forefront of such initiatives include, GTZ, DFID, Birdlife International, UK and Bees Abroad, UK. Training is provided in some of these activities by expertise, e.g. like in modern bee keeping techniques. Kick start funds are also available for the communities to start some complementary activities

Some concerns have also been recorded to enable the communities to access funds from foreign donors in order to carry out some development projects .In a situation where a community demonstrates need for a basic necessity (pipe borne water, community hall, classroom, etc), the project will facilitate the process by linking the communities to funding bodies, e.g. Mapanja village was linked to the British High Commission who complemented their community efforts to realise their water project. Showing proof of conservation initiatives by communities is a pre-requisite for credibility in order to be linked to foreign donors.

The efforts of Mount CEO/MCP to use ecotourism as a tool to manage natural resources like *prunus Africana* and wildlife while introducing alternative livelihood activities, remains a milestone in achieving sustainable development.

Evaluating the benefits of Participatory Forest Resource Governance in Mount Cameroon

This purpose of this section is to critically examine the results of participatory forest resource governance in Mount Cameroon region with the introduction of ecotourism.

Natural Resource Conservation

Mount CEO and other associated agencies undertook a strategy of conserving natural resources (wildlife and *prunus Africana*) by including all stakeholders and designed a wide range of rules and regulations binding them. The enforcement of user and access rights towards sustainable exploitation was made possible by organizing hunters and *prunus Africana* harvesters into unions and giving traditional authorities the right to resolve conflicts regarding resolve exploitation. Educating hunters on the wildlife law and the classification based on the degree of endangerment was made possible through workshops and seminars. They became aware of species that are completely protected (*elephant, drill, bush baby, chimpanzee, boss man potto and the preuss guenon*) in class “A” of the classification table. Those that are partially protected (*bush dog, long tail pangolin, cero, bushbuck, red eared monkey and sleeping deer*) which requires permit in the form of license for exploitation are classified as class “B” animals. And those that that could be hunted for domestic purposes are class “C” animals for example *Cain rat, porcupine and blue duiker*. Hunters have also become aware on the sanctions that await defaulters if they derail from these rules. Off hunting periods (November-February) has also been agreed by all hunters. *Prunus Africana* harvesters have also allocated days within the week that prohibits some members from harvesting.

Although adequate baseline inventory has not been drawn to assess the impacts on the wildlife population, Akumsi (2003) points to the fact that local indicators that have been developed and analysis of wildlife monitoring data show that there has been an increase in wildlife population. Moreover, species like elephant which became very rare in the past could be spotted along subsistent farms not far away from village settlements closed to the mountain. That is why WWF has been able to collar three elephants in the study area with the most recent in January 2009. These improvement encouraged the government of Cameroon to launch the Mount Cameroon National Park in January 2009. This is to testify the fact that, some level of success has been recorded.

Community development:

The 1994 forestry law made provisions to the fact that local communities have the right to benefit from resource exploitation. The CNFAP made provisions to this by linking development and improvement of livelihoods and forest management. Through ecotourism, Mount CEO has made this a great priority on its agenda. This has been achieved by supporting village development projects through Village Ecotourism Committees (VEC.) Projects that have been realized with income derived from ecotourism include, community halls, provision of pipe borne water, schools, rural electrification, and schools. Development of infrastructure has also been realized with the construction of hotels like Seme Beach Hotel and Atlantic Beach Hotel including many bars and restaurants. Commercial activities have also been established with the sale of a wide range of provisions including cultural artifacts.

Diversified Livelihood

Mount CEO and other donors have supported many income generating activity initiatives. The aim is to provide an alternative source of income to improve the livelihood of resource users. This is because resource users are forced to abide by rules at certain periods of the year that forbids them from exploiting wildlife and *prunus Africana*. Income generating activities were supported and initiated to enable hunters and other resource gatherers to meet their needs during this period. This was also done with the aim of reducing the pressure on the resources. Financial and technical support was allocated to projects like bee farming, snail farming and Cain rat domestication. This was done in the form of Common Initiative Groups (CIGs) . Innovations including modern techniques of harvesting honey as well as farming snails has been introduced to improve the yields of the farmers. Also marketing of their produce on a large-scale to reduce cost has benefited the farmers as well. Job opportunities have been offered to some youths as guides and porters to accompany tourists to the mountain. Others have gained employment in hotels, bars and restaurants.

But more has to be done so far as alternative income generating activities is concern. This is because majority of those who depend on the forest believes that they could no longer meet their needs as compared to the past. The jobs offered them are seasonal and lowly paid as compared to the income they used to derive from hunting. Some hunters believe that their livelihood has been reduced because relying on ecotourism is not enough because there is very little guarantee that one could yield a certain amount of income from this activity because of lack of security as compared to hunting. This could be testified in December 2008 where there was a global slowdown of this business due to the global financial crisis.

Conflicts generated:

The main area of conflict that has resulted in the Mount Cameroon region is the inadequacy to reconcile the conservation of resources and improvement of livelihood through ecotourism. This is a serious challenge facing many conservation projects in developing countries including Mount Cameroon. This is because majority of the rural poor rely on natural resources like wildlife and *prunus Africana* to meet their daily needs. Limiting access to these resources in favour of conservation while affecting the living standards of the local people on the other side has become an outcome ecotourism in Mount Cameroon. Although some income generating activities have been introduced, it is still inadequate. One will only appreciate such projects if positive results have been recorded on both the conservation side and livelihood improvement areas. Without these results, then the goal of sustainable development is farfetched.

Conclusion and Recommendation:

Significant results have been achieved due to the fact that the hunters and *prunus Africana* harvesters have changed their behaviors in favor of conservation of natural resources. The pressure exerted on the resource is a result of poverty. Although some degree of success has been achieved in favor of conservation, the population is still lacking in improving livelihoods though GTZ, WWF, DED, MINEF and Mount CEO have stepped up efforts to reducing poverty by introducing alternative income generating activities. One will therefore question the extent to which ecotourism can meet the goals of sustainable development without making an improvement in welfare of the local people a priority. Ecotourism in Mount Cameroon region has resulted to a fragile success story as a result of this because relying on ecotourism is not enough for the people of Mount Cameroon to meet their needs. Although the theory of NIE can contribute to better understanding of natural resource governance, success is still conditional because Ostrom (1992) did not consider poverty reduction as an important instrument that can induce change in behavior among resource users to cooperate in favor of conservation. Designing a number of principles in favor of conservation without including significant projects in favor of poverty reduction will always lead to fragile successes in community based natural resource management projects like the case of ecotourism in Mount Cameroon.

Recommendation:

The following recommendations may help policy makers effect the strategy of participatory forest resource governance in Mount Cameroon Region.

The government of Cameroon needs to improve on the tourism sector if they want to reap more benefits from this industry. The Ministry of Tourism has one of the lowest budgets in Cameroon. The budget needs to be increase to enable the sector to carry out the development of its touristic sites which are eroding as years go by.

a) There should be an increase in funding to agencies like Mount CEO to enable them to achieve more. This agency has no service vehicle, very few staff and a very small structure accommodating the head office allocated to them by the Buea Rural Council. This has also made efficiency difficult.

b) In the area of diversified livelihood, investment should be done by educating the villagers with more skills and introducing other activities like poultry farming, piggery farming, mushroom farming, rabbit domestication and others where the communities show interest. Apart from improving their capacity, micro-credit schemes with minimum interest rates should be made available to them. This will enable farmers to buy more farm tools, improved seeds, vaccines and better accommodation for their animals. Others may engage in other small scale businesses and limit their dependence on the environment.

c) The services for wildlife personnel need to be improved to enable them to enforce forestry laws which are violated at times. This is the root cause of corruption in the forestry sector in Cameroon. There are situations where species that are endangered have been hunted and trafficked with complicity of wildlife officials. More personnel need to be recruited and their working conditions improved. Service cars and other working materials needs to be made available to enable them parole the forest margins frequently. This is because the Cameroon National Forestry Action Plan (CNFAP) has well designed rules but lacks enforcement.

REFERENCE LIST

Agrawal Arun (2002). Common Resources and Institutional Sustainability: In Ostrom et al (2002), (eds) The Drama of the Commons, National Academy Press, Washington DC

Akumsi Alfred (2005). Community Participation in Wildlife Management, the Mount Cameroon experience, MCP, Cameroon

Ambrose-Oji, 1997. Forest Livelihoods. Implications for Biodiversity Conservation. Analysis of the MCP-GEF,socio economic data for the West Coast and Bonana Corridor Area.MCP-GEF socio economic survey consultancy report to Mount Cameroon Project,Limbe Cameroon

Cornelius Lambi, 2001.Environmental Issues Problems and Prospects. Unique Printers,Bamenda-Cameroon

Ekane N B,2000, The Socio Economic Impact of Pronus Africana Management in the Mount Cameroon Region. case study of the Bukwango Community. Presented as partial fulfilment of the degree of M Sc. From the department of Urban Planning and Environment, Royal Institute of Technology Stockholm

Fanso, V.G. (1989) Cameroon History for Secondary Schools and Colleges Vol I: Prehistoric times of the Nineteenth Century. Basingstoke; Macmillan

Mascarenhas, James. 1996. The Participatory Watershed Development Implementation Process: Some Practical Tips Drawn from Outreach in South India. Outreach Series Paper1

Neils et al,2001.Advancing a Political Ecology of Global Environmental Discourses, Blackwell Publishers

Ostrom ,Elinor (1990) Governing the Commons: The Evolution of Institutions for collective Action. Cambridge University Press, New York

Ostrom et al 2002.The drama of the Commons, National Academy Press, Washington DC

Poukouyou et al 1996.Development of a sustainable wildlife management mechanisms in lowland Forest of the West Coast Area of Mount Cameroon. A paper prepared for the sustainable management of African Rainforest Today. An International Workshop organised by FORAFRI,Gabon in October 1998

Sackmen Divine Fotso 2003, Institutional Perspectives of Forest Management:The Case of Kilumn Ijim Forest North West Province,Cameroon, M.Phil thesis University of Oslo.

Tchouto, M.G.P, 1999. The vegetation of the proposed Etinde Rainforest Reserve, Mount Cameroon, and its conservation. M.Sc. Thesis, University of Edinburgh/Royal Botanic Garden, Edinburgh.

Tanyi T. C, 1998, An evaluation of participatory approach in Natural Resource Management, Mount Cameroon Project as a case study. Presented as partial fulfilment of the degree of M.Sc. From the Department of Forestry, University of Aberdeen, Scotland

Tako Tanyi. C,1999, Sustainable Wildlife Management, West Coast Area of Mount Cameroon, Mount Cameroon Project Limbe

