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REPUBLIC OF CAMEROON
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INTERNSHIP REPORT

AN ANALYSIS OF CO-MANAGEMENT ON THE DEVELOPMENT AND PRESERVATION OF NATURAL RESOURCES ON THE MT. CAMEROON NATIONAL PARK

Cycle B

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FICHE DE CERTIFICATION DES CORRECTIONS APRES LA SOUTENANCE

Le présent rapport a été revu et corrigé conformément aux observations du jury.

Visa du Superviseur

Visa du Rapporteur

Date…….

Date……..

Visa du président du Jury

Date…….

DEDICATION

This piece of work is been dedicated to God Almighty

And My Son

Forlemu Halid Frank Copperfield

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PREFACE

This research focuses on" analyzing the impact of Co-management on natural resources in the Mount Cameroon. This project has been undertaken as part of the requirements to obtain a CYCLE B diploma in WILDLIFE MANAGEMENT at the Garoua Wildlife College. Internship covered the periods July and August 2013.

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ACRONYMS

FESP; Forest-Environment Sector Program

WWF-Cameroon Wildlife Coastal Program

EBA- Endemic Bird Area

MINEF-Ministry of Environment and Forestry

PSMNR-Program for the Sustainable Management of Natural Resources-South West

VFMC-Village Forest Management Communities

NTFP-Non-Timber Forest Products

PFM-Participatory Forest Management

CBNRM-Community base Natural Resource Management

GDP-Gross National Product

NEMP-National Environment Management Program

MINEPAT -Ministry of the Economy and Planning)

MINAGRI-Department of Community Development in the Ministry of Agriculture and Rural

SMNR-SW-Sustainable Management of Natural Resources-South West

IUCN-International Union for the Conservation of Nature

WWF- World Wildlife Fund

Mount CEO- Mount Cameroon Inter-communal Ecotourism Board

GIZ- German Technical Cooperation

CDC-Cameroon Development Corporation

NTFP-Non-Timber Forest Products

LAGA-Last Great Ape Organization

GoC-Government of Cameroon

MCNP-Mount Cameroon National Park

RCDC-Regional centre for development and conservation

MOCAP- Mount Cameroon Prunus Management Company Ltd

CITES-International convention on the trade of endangered species

GEF- Global Environment Facility

MCP- Mount Cameroon Project

MINTOUR-Ministry of tourism

MNFOF-Ministry of Forestry and Wildlife

BFR- Bomboko Forest Reserve

VDP- Village Development Program

VDF- Village Development Fund

ABSTRACT

After the Rio Summit in 1992, Cameroon and other member countries in Africa adopted national regulations and laws that have given communities legal rights in the management of natural resources. Mount Cameroon Region presents a typical example where this participatory method of management has been introduced through the Ministry of Forestry and Wildlife in collaboration with International agencies like GIZ, KFW, and WWF with the intention of reinforcing conservation of biodiversity and improving the livelihood of the communities in this area.

A one-month and two weeks fieldwork was carried out in 17 villages, including; Woteva, Bakingili, Bokwango and Bonakanda and others around the Mount Cameroon protected area. The main stakeholders identified were the Government; Mt. CEO, the local people (VFMCs), and MOCAP, meanwhile GIZ through the PSMNR-SW (Program for the Sustainable Management of Natural Resources-South West) has aided in the implementation of community development activities.

Questionnaires and semi structured interviews were administered in the 17 villages, findings revealed that Village Forest Management Communities exists (VFMC's) in all these villages and that the visible interest in resource management has been brought about by the approach which focused mainly on the community's involvement in the sustainable management of the resources in the MCNP. Though aware of the existence of Co-management, communities in the MCNP are very dissatisfied with the level of their involvement as well as with the benefits received in the process, taking into consideration that access to Non-Timber Forest Products (NTFP), wildlife and water resources, which are the main assets of villagers, is still limited and varied in the different villages. The creation of the protected area was identified amongst others by villagers as the main constrain to livelihoods and so expect benefits equal to or above their former income for them to fully embrace and participate in the sustainable resource management initiatives.

MOCAP is the stakeholder responsible for the sustainable harvesting and marketing of *Prunus africana* to the only purchaser by name AFFIRMED who has signed the lone convention with MINFOF for reasons of easy access and the need to facilitate its administration, and MCNP is spatially divided into four 'cluster conservation zones of the Mount Cameroon National Park'. These clusters comprise the 41 villages and zones that make up the Park. They include the Buea cluster in the South and parts of the East, consisting of 13 villages; the Bomboko cluster in the North east and North west areas of the Park, consisting of 12 villages; the Muyuka cluster occupying the East and consisting of 9 villages and the West Coast cluster covering the areas to the West and consisting of 7 villages as can be seen on figure 1 below. Prunus commercialization. It should be noted that this is the only existing convention between MINFOF and the other existing stake holders. This therefore has an incomplete effect in the Co-management process of the MCNP because government has limited rights as to other stakeholder's interests in the area. For example, some Field findings revealed that, Mt. CEO is using the fortress approach of conservation and depriving local people of their user rights. This is in contrast to the participatory approach to conservation encouraged by the Cameroon's legislation for protected areas within community forests. The absence of

government’s effective monitoring of the activities of Mt. CEO, as well as poor law enforcement, is a potential threat to the biodiversity in the region and therefore needs to be addressed for better results to be archived.

CHAPTER I

INTRODUCTION

1.1 Background

Mount Cameroon, also called Fako or Mongo ma Lobo in Bakweri, the local language, measures 4095 m high with a surface area of 58,178 ha. It is situated in the South West Region of Cameroon. Mount Cameroon is the highest peak in West and Central African. It is still an active volcano with the latest eruption recorded in the year 2000. It belongs to the effusive or Hawaiian volcano type whose eruptions are generally "calm", that is, the lavas are fluid and flow for a long distance. Compared to the explosive volcanoes, effusive ones are less dangerous and cause fewer damages. The Mt. Cameroon National Park, created in the year 2009 with surface area of 58,178 ha, is a living room for many endangered and endemics animal species. For example, there are two bird's species, the Mount Cameroon “Francolin” and the Mount Cameroon “speirops” that are only found there. This site is a paradise for bird watchers. Endangered species like the forest elephant as well as other animals such as antelopes and monkeys also leave here with many plant species. The Mount Cameroon and Bioko forests are recognized as being of exceptionally high biodiversity value, having a continuous gradient from low-altitude moist forest to sub-altitude vegetation.

Although these species are under the protection of the Cameroonian Ministry of Forestry and Wildlife and the (WWF) Cameroon Wildlife Coastal Program, they are still being hunted by the villagers living around the park. The Mt. Cameroon National park is endowed with many plant species. Some of them are of medicinal value such as the *Prunus africana* which is used for the prevention and treatment of prostate cancer. Many giant ferns and orchids' species as well as huge tropical threes with giant roots are also found here. Therefore, being a recently created Park, efforts are being made to protect these fauna and flora diversity. Repressive efforts in the past by law enforcement officials have proven futile.

1.2 RESEARCH PROBLEM

Considering the fact that most governments in the world today manage resources in their designated protected areas through a participatory management approach following the

positive conservation results from such cooperation, the government of Cameroon has fully incorporated by law the participatory wise use of forest and wildlife resources, which is of priority concern to the smooth functioning and conservation of its natural endowments.

This concern is also manifested in the recent national, international and sub-regional efforts. This approach towards conservation has led to several problems and their answers will be provided in this report. The following sub-problems are to be considered:

- How resourceful, experienced and diversified are members of the VFMC?
- Has the idea of integrating the village committees been accepted by the villages and how applicable is it towards Park management for resource sustainability?
- Are there any considerable benefits or remunerations that result from Parks management in the surrounding and how do they encourage participation and management of Parks resources?

The main conflict or problem in the Mt. Cameroon area is the inadequacy to reconcile the participatory sustainable management process and how the ecological, socio-cultural, and economical benefits generated by this process accrue to the communities concerned. This is a serious challenge facing many conservation projects in developing countries including the Mount Cameroon project. This is because the majority of the rural poor rely on natural resources like wildlife and wild plants to meet their daily needs; limiting access to these resources in favor of conservation would affect the living standards.

1.3 OBJECTIVES OF THE STUDY

1.3.1. Global Objective:

This project globally aims at assessing Co-management of natural resources on the Mt. Cameroon National Park and its environs

1.3.2. Specific objectives:

1. Identify key stakeholders and partners involved in Co-management, their rights and responsibilities in the MCNP
2. Evaluate the process of Co-management in the MCNP
3. Appraise the levels of satisfaction of the local population with the Co-management process implemented on the MCNP

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

Participatory and collaborative approaches in natural resource management have become an urgent undertaking in recent years. This is due to a number of related factors. Experience has shown that conventional approaches of top-down controlled management to natural resources has been largely unsuccessful and has often led to increased degradation of natural resources especially where governance is still an issue. In many parts of the world, governments are increasingly seeking more progressive and participative approaches to governance in general, as well as in the field of natural resource management in particular. Many non-governmental organizations, indigenous groups, civil society and local stakeholders all over the world are raising their demands for adequate participation in making decisions which affect their livelihoods and the exploitation and management of the natural resources in the areas which they traditionally inhabit. In some parts of the world, international pressure to accept structural adjustment programs as part of a strategy to decentralize governance and administration has provided fertile ground for local level participation (Dawn et al., 2003). Finally, many international organizations and bilateral development agencies operating In the Middle East are encouraging participatory approaches to natural resource management

Although there has been a concerted effort at the higher levels of governance and management to integrate participation into natural resource management, these conceptual models are often not successfully handed down to local level authorities, and especially to extension workers who need to facilitate their being put into action. The transformation from an authoritarian and technocratic approach of management style to a participatory and inclusive working style is not easy; nor is it straightforward. In most cases there is good will on all sides to try to make this change work. However, what are often lacking are the necessary skills to make a change in attitudes and approaches possible, as well as the limited time factor and the need for fast results of most projects.

2.2 Evolution of Participatory Management Approach in Africa

Natural resource management policies in the colonial era were a central component of the project of extending European political control into rural African landscapes (Neumann, 1998). Colonization by European powers in the 18th and 19th centuries, and the accompanying spread of conservation practice, did not bring with it the respect for traditional rights (Colchester, 1994).

The model for nature conservation that was globally imposed by European nations was based on the American approach of pristine wild areas set aside for human enjoyment and fulfillment and was encouraged by concerns about the depletion of wildlife, timber, and other valuable resources (Adams, 2004). Ownership of land was gradually transferred from traditional local authority to the state domain in order to enable colonial authorities to exploit African lands, labor, and resources. Ultimately this shift in tenure became one of the key drivers of African independence movements seeking to recover entitlements to land and resources. Resources such as wildlife were progressively placed under central regulatory authority, with the rights of local people to utilize resources alienated over time. The newly independent African nations that emerged starting in the late 1950's inherited colonially derived political structures based on centralized control and exploitation (Mamdani, 1996). African States often maintained heavily centralized political economic institutions, as a result of socialist ideologies favoring state direction of the economy and ownership of valuable resources and the desire of elites in many emerging nations to build patronage networks essential for their own authority and political stability (Bates, 1981; Ake, 1996; van de Walle, 2001). As a result, for example, colonial land tenure institutions were generally retained, and in many instances central authority over lands and resources extended, and local rights further alienated (Alden, 2008).

In the 1980s, a community-based counter-narrative began to emerge as a result of manifold trends, ideas, and crises which led to a broad rethinking of both development and conservation fields. The influences that led to the widespread support for CBNRM and that emerged during the 1990's were both internally and externally derived. The emergence of CBNRM in southern and eastern Africa often had deep locally derived roots. In the late 1960's, use rights over wildlife on freehold lands in Zimbabwe, South Africa, and Namibia all then under the rule of contested white minority regimes was through a series of legislative reforms, devolved to landowners (Jones and Murphree, 2001).

This dramatic shift away from strictly centralized governance of wildlife management effectively changed wildlife's status on private lands from an economic liability to an asset,

and led to profound recoveries of wildlife on freehold lands and the growth of wildlife-based industries in all three countries (Bond, 2004). The reforms also laid the basis for extending the model of local management to communal lands after the enactment of majority rule in those countries, resulting in Zimbabwe's iconic Communal Areas Management Program for Indigenous Resources (CAMPFIRE) in the 1980's, and Namibia's Communal Conservancies in the 1990's (Jones and Murphree, 2001). These local experiments in CBNRM provided new ideas and opportunities for adaptive learning. CAMPFIRE, for example, played a key role in shaping pilot initiatives in community-based wildlife management in neighboring countries including Mozambique, Botswana, and Namibia. Similar experiments were also occurring as early as the 1960s outside of southern Africa. In Kenya, local communities were able to earn income from lease fees paid by hunters in areas such as Kajiado District, where efforts to integrate the management of Amboseli National Park with local livelihood interests led to the crystallization of new 'community-based' conservation paradigms in the 1970's (Western, 1994; Homewood et al., 2009).

In contrast, many countries in Central and West Africa were gaining independence from French, English and Spanish colonial rule in the early 1960s. After independence, tenure rights for many countries became more, rather than less centralized (e.g. in Ghana Alhassan & Manuh, 2005), Mali (Hilhorst & Coulibaly, 1998) and Côte d'Ivoire (Stamm, 2000). This delayed the emergence of community based management models, which only started to appear in the 1980s and 1990s, with the introduction of decentralization policies in many countries such as the Gestion de terrors approach of Burkina Faso (Batterbury, 1998).By the late 1980s there was a confluence of this type of local experimentation, the changing global discourses on rural development and conservation, coupled with the changing political regimes across Africa. Development theory in the 1980s particularly that oriented to rural development began to emphasize decentralization and local empowerment (Chambers, 1983, 1987). In the natural resource management field, the emergence of an array of new studies documenting sustainable forms of collective resource management based on traditional rules and norms transformed thinking about communal property rights and institutions (Berkes, 1989; Ostrom, 1990). This scholarship provided much of the conceptual basis for CBNRM, and in many ways was convergent with ideas emerging independently within Africa about local resource management regimes (Murphree, 1993), as well as with parallel experiments with Participatory Forest Management (PFM) in places like southern Asia.

Conservation efforts, meanwhile, were increasingly subject to concerns regarding the negative impact of protectionist approaches based on exclusion of local people. The Bali

Action Plan, an outcome of the 3rd IUCN World Parks Congress in 1982, is seen by some as a turning point in conservation practice, through its encouragement of local participation and sustainable use (Wilshusen et al., 2002). Just after this, in 1985, WWF launched its Wildlife and Human Needs Program comprising some 20 projects that sought to combine conservation and development in developing countries. Alongside the emergence of new ideas and narratives about rural development and natural resource management were a range of shocks and crises that overtook Africa during the 1980s, which often created new political space for experiments with CBNRM. Africa's share of global GDP decreased from 2.5% in 1980 to 1.1% in 1996, and African countries had a per capita Gross National Product in 1998 that was only 91% of what it was in 1970 (van de Walle, 2001). The fiscal insolvency of many states led to increasing reliance on external rescue packages and global financial institutions. By the 1980's, a range of bailouts led by the International Monetary Fund and World Bank were being adopted, based on the new global economic prescriptions of 'structural adjustment' (Devarajan et al., 2001). These adjustment policies called for market-based measures, reduced government budget deficits, and decentralized political economic structures that would promote investment. CBNRM, with its focus on local management and incentives and a reduced role of centralized state bureaucracies, fitted well with the broader suite of economic policies being promoted by donors across Africa during this period. For example, the World Bank published Living with Wildlife (Kiss, 1990), while the UK Overseas Development Administration (now Department for International Development) commissioned a review of participatory approaches to wildlife management in order to inform its new African wildlife policy (IIED, 1994). Finally, the end of the Cold War and the collapse of communism in Eastern Europe contributed to a sudden resurgence of democratic governance in Africa in the late 1980's and early 1990's (Bratton and van de Walle, 1997). Culminating in the South African general elections in 1994 following the end of Apartheid, this 'second liberation' seemed to usher in a new era of popular participation in government decision-making. The promotion of local participatory and accountable institutions with authority over lands and resources seemed to be an essential component of such political reforms. Indeed, throughout sub-Saharan Africa reforms were adopted during the 1990s which called for decentralization of natural resources and land tenure institutions and greater participation by the public and local communities (Ribot, 2003).

However, the widespread adoption of CBNRM in policy and legal reforms during the 1990s, as with the 'second liberation' more broadly, did not necessarily translate into radical

changes in local rights or authority over natural resources in the years that followed (Nelson and Agrawal, 2008)

2.3 Participatory management approach in Cameroon

In 1992, the Cameroonian forest and wildlife sectors in the Department of Agriculture and the Department of Tourism formed the Ministry of Environment and Forestry (MINEF). Since this time, these two sectors have undergone profound institutional and legislative reforms, such as the establishment of the Cameroon forestry policy, the creation of new forestry laws, wildlife and fisheries regulations, and development of all the applications texts of these forestry laws.

All these actions have significantly modified regulation governing the entire sector. Cameroon’s forestry policy is one component of our national strategy for the enhancement of rural economic activities that fall within the framework of land use planning (zoning plan) and goes a long way toward boosting the agricultural policy. The forestry policy is also an important component of the National Environment Management Program (NEMP), which has been drawn up with an emphasis on the sustainable management of forest resources. It is also a complementary part of the National Energy Program currently under discussion, with regard to the firewood subsector. Lastly, it covers all the forestry research programs adopted at the beginning of 1995. These orientations, objectives, and strategies take into consideration the environmental problems plaguing Cameroon, notwithstanding the fact that the forestry policy precedes that of the National Environment Management Program. There have been no fundamental differences in these adopted view points because consultation and collaboration have been an active component in creating the forestry policy. Nor are there major problems concerning the NEMP link with the National Energy Plan. It is only a question of ensuring the compatibility and feasibility of some of the proposals adopted for the latter. In drawing up this new policy, the forestry administration made it a point to shift emphasis from the tree to the entire forest. The forest will henceforth be seen as a multiple product and multiple-use ecosystem and not simply as a producer of timber. Special care is therefore taken to bring out the many related aspects of forest resource management. The task of the forest management officer is then to harmonize users' needs, which may sometimes be contradictory. Economic development strategies have not quite considered forestry as an important sector, whereas its adequate integration into development can considerably boost the progress of rural populations.

One of Cameroon's concerns in forest management has always been the involvement of the population surrounding protected areas, to enable them to have a fair and equitable

share of the proceeds from the exploitation of forest resources. Although the population enjoys usufruct rights, they do not have a substantial share of proceeds from the commercial exploitation of forest resources. Consequently, they do not worry about the conservation of these resources.

The current policy therefore seeks to involve the population concerned so that they can directly profit from this exploitation. Cameroonian women have a crucial part to play in the exploitation of resources. This policy acknowledges the important role of women and considers them a privileged target group in conservation strategies. Women make up more than 51 percent of Cameroon's total population and 38 percent of the working force. A large percentage of these women (84.5%) live in rural areas and an even higher percentage (92%) live off the land. Rural women are the main consumers of natural resources. They gather hay, firewood, leaves, fruits, bark, and small animals that go into the meals of their families; they are the custodians of traditional pharmacopoeia and harvesters of forest products for craft work.

Cameroon has acknowledged the need to involve women in the development process by creating the Ministry of Women Affairs and the Family (MINPROFF), the Office of Social Services, and Women's Enhancement in the Ministry of the Economy and Planning (MINEPAT) and the Department of Community Development in the Ministry of Agriculture and Rural Development (MINAGRI) to Assist Rural Women. The State has also encouraged the establishment of NGO's that involve women in environmental protection (e.g. Africa 2000Network, Environ Protect). MINFOF's forestry policy sets out not only to integrate women into the development process, as was often the case with previous strategies, but also to recognize them as an important and undeniable actor of sustainable development and endeavors. The forestry policy aims to develop all components of Cameroonian forests while maintaining our biodiversity reservoir. It sets out to ensure the conservation, further development, and sustainable use of this forest. It respects all the conventions to which Cameroon is party.

2.4 Participatory management in the Mt. Cameroon region

Cameroon's objectives in relation to forest ecosystems is to promote sustainable management and exploitation of tropical dense forest and resources; to promote indigenous knowledge of forest and biodiversity and its socio-economic importance; to ensure the adoption of better farming techniques by the population and; to provide alternatives to forest

resources such as fuel wood and building materials so as to reduce pressure on forests for daily subsistence (MINFOF and WWF, 2006).

In 1994, the Cameroonian government replaced its old, 1973 and 1981 Forestry Laws with anew Forestry, Wildlife and Fisheries Law as part of its National Environment Management Plan (NEMP), in response to the resolutions of the 1992 Earth Summit in Rio. Supporting NEMP and the Forestry, Wildlife and Fisheries Law is the Framework Law on the Environment. Section 72 of this law lays down specific guidelines for participation.

Although participation in environmental matters in the form of community forests could be seen as a positive contribution of the new Law, this participation is both unclear by definition and limited in practice. It states the following: “Populations shall be encouraged to participate in environmental management, especially through free access to environmental information, pending the imperatives of national defense and State security” (pp 119). Section 72, paragraph 2 of the Framework Law simply suggests that a consultative mechanism “take stock of the opinions and contributions of the populations in matters of the environment” (pp 119). By these provisions local participation in forest and environmental management is limited to the expression of their opinions as well as free access to environmental information.

Participation, as it is suggested today where locals are supposed to be fully involved in the design, planning and management of their natural resources like the type suggested in trade-off analysis (Brown, 2004) is not ensured by these provisions, except in cases like Council Forests and Community Forests, where locals are supposed to be the sole planners and managers of the forest resources. Yet, in such situations it has been largely reported that powerful local elites some live in villages, but most residing in cities have usurped control over forest resources for their own gains. Such reports are not limited to Cameroon, but across developing countries.

However, global environmental and social movements have gained impetus since the 1992 Rio Earth Summit, including international aid regimes like the Paris Declaration on Aid Effectiveness or the Accra Action for Aid. These declarations, among other things have asserted the need for, and importance of, socio-economic development alongside environmental protection, especially in less developed countries where it has become clear to international aid donors and environmental protection agencies that effective conservation can only be achieved through the active participation of local communities, alongside socio-

economic development (Brown (2004), Saunders (2011), Kremen et al. (1994), Gubbi et al. (2009), Ferraro & Simpson (2002), & Ferraro (2001)).

It is thus in connection to this paradigm shift in conservation efforts the so-called 'new generation' ICDPs that the Government of Cameroon has been carrying out a number of bilateral cooperation activities with Western governments such as France, Germany, Britain, Canada, and other important development partners.

One of such conservation and development agreements with Germany, for instance, is within the forest sector. In the South West Region of Cameroon in particular, Germany's technical and development agency (GIZ, formerly GTZ+DED) on behalf of the German Federal Ministry for International Cooperation initiated in 1994 through late 2003, the Mount Cameroon Project Integrated Nature Protection on Mount Cameroon (Project No. PN91.2248.2). the project aspired to improve local capacity to manage and generate revenue from forest resources while maintaining ecological equilibrium of the region simultaneously (Mambo, 2005).

Immediately after the close of the project, both governments embarked on another project within the forest sector in the same administrative region the Sustainable Management of Natural Resources-South West (SMNR-SW) through a more consistent application of a Forest Environment Sector Program (FESP) with an overall term of 13 years, from 2003 to 2016. The objective of this new program is to ensure that the various actors in Cameroon's forestry and nature protection sector contribute, at all levels, to the sustainable management and appreciation of the value of forest resources of the Congo Basin.

The program provides expert and process consultancy to the Ministry of Forests and Wildlife, the Ministry of Environment, Nature Protection and Sustainable Development, as well as to other government bodies in implementing the FESP. It helps these ministries through the revision the 1994 Forestry Law and the drafting of political strategies and instruments. It also supports municipalities and their partners (e.g. public and private companies) in the management of their municipal forests. Since 2003, according to MINFOF officials, the program with support from GIZ has led to a major increase in the areas permanently designated for conservation initiatives. It is suggested that protected areas in Cameroon have nearly doubled from 4.6 million hectares in 2003 to 9 million hectares in 2011. It is thus with such high value-driven commitments by both German and Cameroonian governments to sustainable forest practices alongside socio-economic development, that the

Government of Cameroon on December 18th 2009 gazetted the Mount Cameroon National Park.

2.5 Conservational values in the Mt Cameroon area

The high levels of biodiversity on Mount Cameroon 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 center 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. Three endemic primate species are considered endangered on Mount Cameroon. These include, the Drill (*Mandrillus leucoplaeus*) Preuss Guenon (*Cucopetyeu spreussi*) and Red-eared Guenon (), (Tanyi, 1998).The region also harbors the most important population of Preuss Guenon (Olsen et al., 2001). The area is a very important tourist hot spot with many touristic attractions including 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 are 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 (GIZ). There is a marked diversity in the social structure and ethnic composition of the population. Although the indigenous Bakweri people are outnumbered by migrant workers who were recruited to work in the plantations from other parts of Cameroon and Nigeria, they have and have maintained their rich culture. This culture also plays an indirect role in natural resource management in the area.

Educating hunters on the wildlife law and the classification of species based on the degree of threat 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 cane rat, porcupine and blue duiker. Hunters have also become aware on the sanctions that await defaulters if they derail from these rules. Hunting season (March to

October) has also been agreed by all hunters. *Prunus africana* harvesters have also allocated days within the week that prohibits some members from harvesting. Adequate baseline inventory has not been done to assess the impacts on the wildlife population. Akumsi, (2003) asserts that local indicators that have been developed and that 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.

2.6 Threats to Biodiversity degradation in the Mt. Cameroon Region

The Mt. Cameroon area is dominated by the CDC which alienated much of the land from the indigenous Bakweri. There has also been significant immigration to satisfy the labor needs of the CDC population density is now about 48 per km**,** nearly 75% of Mount Cameroon study site is deforested. Main threats to biodiversity are linked to hunting in the Mt. Cameroon area, which is carried out by means of wire snares and locally manufactured. Bush-meat is sold fresh or smoked. Fresh meat, which is the most common form for immediate consumption, is sold in local markets.

Because smoking is the only means of conservation, hunters operating at distances of more than 15km from their base smoke meat on the site in the bush. Smoking also facilitates transportation by reducing the weight. Smoking, especially of big game, takes at least 2days. Many consumers prefer smoked meat. Two types of hunters as well as wildlife collectors operate in the Mt. Cameroon area; they are subsistent and commercial large scale hunters. Hunting has always been a major source of livelihood for the local villagers in the Mt. Cameroon region. In the past, traditional hunting for domestic purposes posed very little threat to animal populations. Prior to 1960, elephants and other large game dominated the slopes of Mt. Cameroon. However by the 70s and 80s, poaching for ivory and hide coupled with the deliberate action of the Cameroon Development Cooperation (CDC) to kill elephants in an attempt to save their palm plantations greatly diminished the elephant population to less than a hundred (Pouakouyou, 1996).

This activity was also encouraged by politicians, military personnel, traditional rulers and wealthy businessmen who needed the ivory for prestige and sale on the international markets. In addition, the use of sophisticated weapons today for hunting is increasingly posing a greater threat to animal species due to the significant increase in the catch. Bush-meat in Cameroon is very important in the livelihoods of forest dwelling communities across the

national territory and a delicacy to urban dwellers. As such, despite the laws regulating wildlife exploitation, many hunters are still operating illegally (without permits, using unregistered guns and unconventional trapping equipment) to meet up the demand for bush-meat. At checkpoints in Cameroon, eco-guards often find massive amounts of bush-meat hidden underneath lumber in trucks.

Habitat loss through deforestation, illegal hunting (poaching), and lack of a realistic workable management model that could set, respect and enforce quotas, based on science, is undoubtedly a major threat to biodiversity in the Mt. Cameroon region. The main drivers of biodiversity loss in this region are excessive agriculture, logging, unsustainable exploitation of NTFP (Non-Timber Forest Products) and poaching. The CDC (Cameroon Development Cooperation), a parastatal agro industry with vast banana, rubber and tea plantations, is in this region and keeps extending its farm into the protected areas causing substantial loss to biodiversity. In addition the slash and burn shifting cultivation system of farming practiced by the local people of this area is very destructive to nature. Habitat loss, which leads to forest fragmentation, is an important cause of reduction in species populations and increased species extinction rates (Wilcoe et al., 1986, Hudson, 1991).Of the different tree species found in the Mount Cameroon region, the African Cherry (*Prunus africana*) is the most endangered. This is an evergreen hardwood tree with dark-brown longitudinal fissured bark and simple thick leathery, oval-shaped, leaves with pointed ends and of the Rosaceae family (Ingram, 2007; Cunningham and Mbenkum, 1993).The intrinsic value of this species is the driving force behind the indiscriminate exploitation for local and international trade. According to Jean Renaud (1991), *Prunus africana* represents the fourth most popularly used medicinal plant species that is collected by 80% of households surveyed in the Mt. Cameroon region. Locally, it is a huge source of income (livelihood) to many families and it is also used by traditional healers for the treatment of chest pain, malaria, headache, chest pain, allergies, and kidney diseases. The bark is not only used by traditional healers, but also by local people collecting their own medicinal plants, including for use as a purgative for cattle (Kalkman, 1965). Internationally, interest in the tree is in its bark, which contains active biochemicals used for the treatment of prostate gland disorders. Presently, the bark extract is used internationally for the manufacture of drugs to cure prostrate hyperplasia, prostate gland hypertrophy and male pattern baldness. These diseases commonly affect older men in Europe and North America (Dawson and Rabevohitra, 1996). High demand for this species has led to over exploitation for its medicinal properties and to a lesser degree for its timber. The wood is hard and durable. Hence, it is excellent for use as construction material and in the manufacture of furniture. It is

also used to manufacture handles for farm tools and house hold utensils. Worth mentioning also is the stock that is cut down for fuel wood by farmers. Prunus has become so important that many people in the Mount Cameroon region and even beyond are involved in its exploitation or marketing. This has made the species scarce not only for international trade but also for use by the local communities. There is no doubt that it is because of the lucrative nature of the international market that *Prunus africana* is being over exploited and traded on a larger scale than any other African medicinal tree species with the resultant devastation of wild stock. This species has been listed as endangered by the Cameroon government and listed as vulnerable in the world's list of threatened trees, owing to its rapid population decline (Schippmann, 2001). The decline in *Prunus africana* stock is alarming and has great impact on fauna and flora, whether dependent on the species or not.

2.7 Initiatives to promote sustainable utilization of biodiversity on Mt. Cameroon

The government of Cameroon and NGO's through the ministry of wildlife and forestry in the Mt. Cameroon area has contributed enormously to the protection of biodiversity which was gradually depleting. This has permitted government to meet out rigorous penalties to defaulters of the law ranging from fines, to imprisonment.

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 except the 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. The law makes provision for a community forest to be attributed to villages around the park where they can tend to for hunting of non protected species and carry out different agricultural and livestock farming.

The Cameroonian Ministry of Forestry and Wildlife (MINFOF) made the courageous decision to go ahead with a pilot project in collaboration with LAGA. The collaboration seeks to create a successful model that will provide the missing ingredient in the implementation of the law: creating a deterrent factor. LAGA is the first specialized Law Enforcement NGO in the sub region. It focuses on threatened species and mainly on the dealers, the primary perpetrators of the illegal Bush-meat business (the ivory trade and the pet trade). LAGA

formed a legal team to assist in the administrative procedures of prosecuting the first wildlife cases known in the courts of Cameroon. LAGA also put newsflashes on national TV news, national radio news and written press concerning the success of the operations and positive court rulings. The Cameroonian media then informs the public that the law is being actively enforced, thereby achieving education of the public on the change, increasing deterrent, and classification of the illegal trade in endangered wildlife as criminal.

The GoC has created VFMC in all the villages around the Mount Cameroon National Park which act as survey entities to illegal exploitation of natural resources. Some of its members benefit from harnessed bee farming, snail rearing, and pig rearing after receiving WWF training with the main motive to deter them from hunting.

CHAPTER III

PRESENTATION OF STUDY ZONE AND METHODOLOGY

3.1 PRESENTATION OF STUDY ZONE

3.1.1 Location of the MCNP

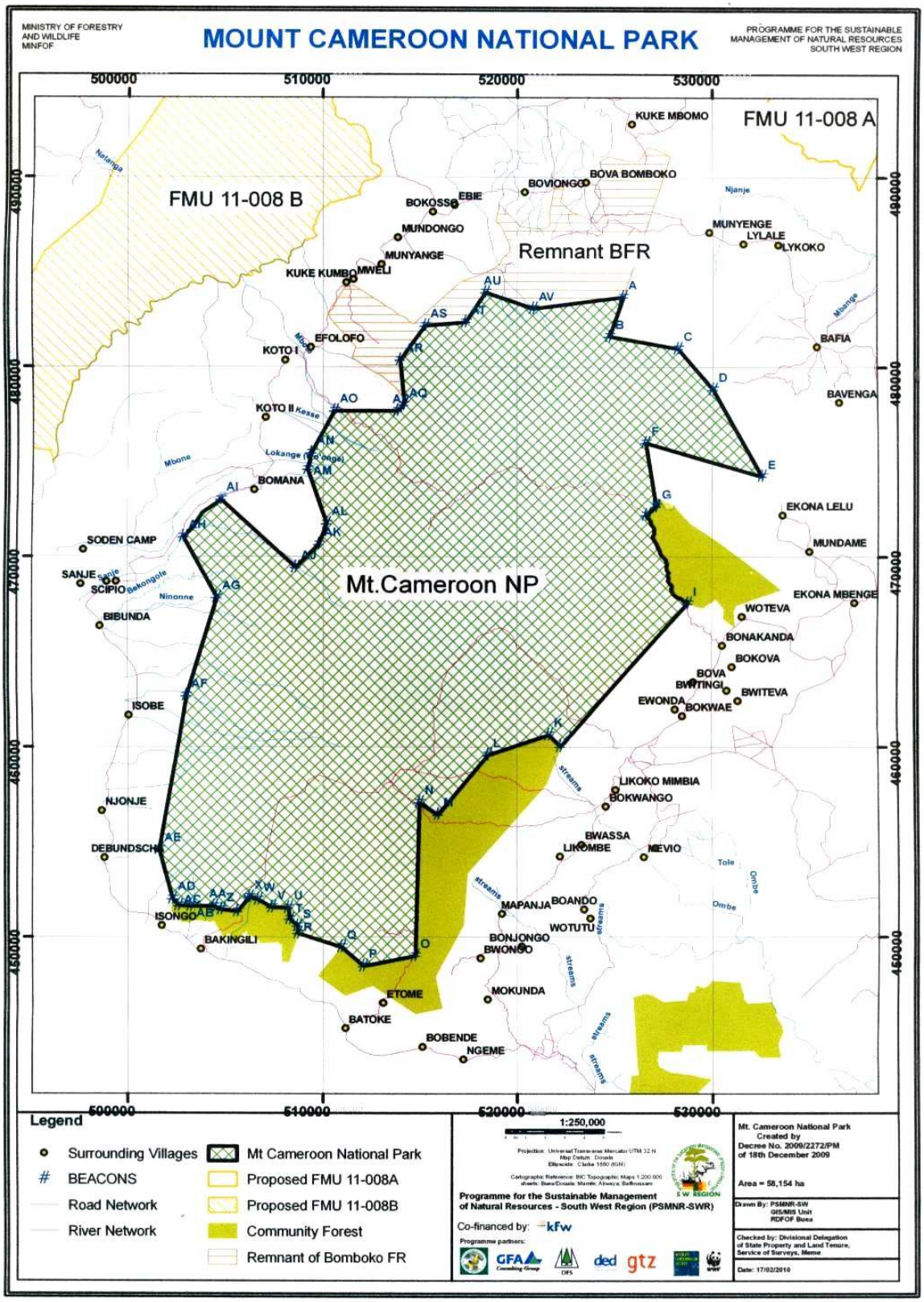
Mount Cameroon national park lies on the coast, in the Gulf of Guinea, between 3°57'-4°27' N and 8°58'-9°24'E. It is a huge volcanic mass with its long axis (about 45 km long and 30 km wide) running SW to NE. The main peak is at 4°7'N, 9°10'E at altitude 4,100 m. It is an active volcano, which erupts almost every two decades. The volcanic eruptions of the last century took place in 1906, 1922, 1958, 1982, and 1999 and in 2000. The MCNP falls between 4.055° - 4.378° N and 9.031° - 9.294° E. 3.1.2.

3.1.1.2. Park's description and peripheries

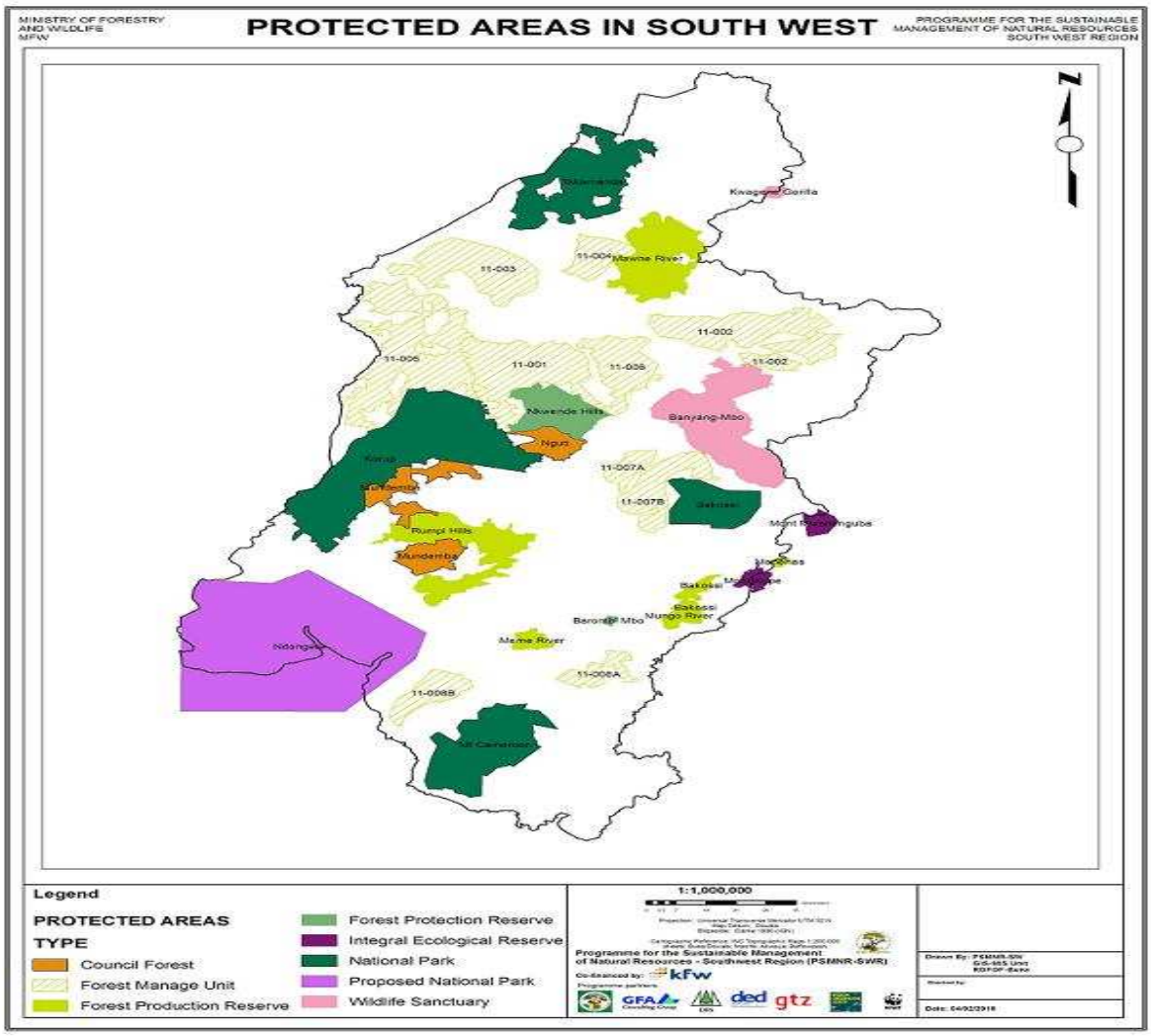
It covers a total surface area of 58,178 ha and is located within four sub-divisions: Buea, Muyuka, Mbonge and Idenau. The southern boundary is about 2 km from the Atlantic oceans and harbors the wettest place in Africa (Dbuncha) which occupies second position in the world. The parks head quarter is located at Limbe. The MCNP is made up of 41 villages bordering it directly. There are cosmopolitan centers almost around the park: Limbe; Mutengene, Buea, Ekona, Muyuka, Munyenge and other petty villages...

For reasons of easy access and the need to facilitate its administration, MCNP is spatially divided into four so-called 'cluster conservation zones of the Mount Cameroon National Park'. These clusters comprise the 41 villages and zones that make up the Park. They include the Buea cluster in the South and parts of the East, consisting of 13 villages from Upper Boando to Woteva; the Bomboko cluster in the North east and North west areas of the Park, consisting of 12 villages from Bomana to Bova Bomboko; the Muyuka cluster occupying the East and consisting of 9 villages from Ekona Lelu to Munyenge; and the West Coast cluster covering the areas to the West and consisting of 7 villages from Sanje to Lower Boando, as can be seen on figure 1 below.

Figure I: Represents the MCNP and other protected areas in the South west region of Cameroon



Map of MCNP with its surrounding forty-one villages. Drawn by MINFOF (2006)



(GTZ Buea, 2009)

3.1.3 Physical properties of the area

3.1.3.1 Soil

The mount Cameroon region has predominantly rich volcanic soils of recent origin (Neba, 1997). These soils of recent origin are mostly on young volcanic rocks and are fertile. In Other parts like the surrounding foothills on the south and south west flanks, it is mostly older Tertiary lava, which is different in composition to the underlying Holocene basalt of Mt. Cameroon (Payton, 1993). Along the coast soils are composed of a mean texture of sandy clay dominated by sand. The north-eastern flank of the mountain is characterized by metamorphic volcanic formations and deep soils, favorable for growth of gregarious flowering plants. The rich volcanic soils in the area explain the presence of the Agro-Industrial company. The

Cameroon Development Corporation (CDC) in the area. The CDC has taken advantage of the fertile soils and has established vast banana, tea, rubber and palm plantations in the region.

3.1.3.2. Climate

This area has two distinct seasons, the very wet season (between June and October) and dry seasons (between November and May). This region is known to be the second wettest place in the world. The south western sides of Mt. Cameroon have a continuous wet rainy season reaching 10,000mm a year (Cape Debundscha) and a tropical climate at lower altitudes. On the other hand, the north and eastern sides of the mountain lie in a relative rain shadow receiving just about 2,000mm per year. In general, the region receives about 3,500mm of rainfall per annum. Temperature in the area varies from an average of 25.5 to 27°C at the base of the mountain to about 32 to 35°C during the hottest months (March and April). However, at the peak, temperatures can be as low as 4°C. Payton (1993), states that the decrease in temperature for each 100m increase in altitude is 0.60°C and that humidity remains at 75-85% due to the marine influence and the incidence of mist and Orographic cloud formation. According to Tanyi (1998), the mean annual soil temperature is greater than 22°C, below 1200m due to the descending cold air masses and incidence of cloud around the mountain. The great climatic variation of this region, coupled with factors such as aspect and relief has made it favorable for a diversity of plant and animal types that earns the region its internationally recognized status as a biodiversity ‘hot spot’ in Cameroon (MINEF, 2002).

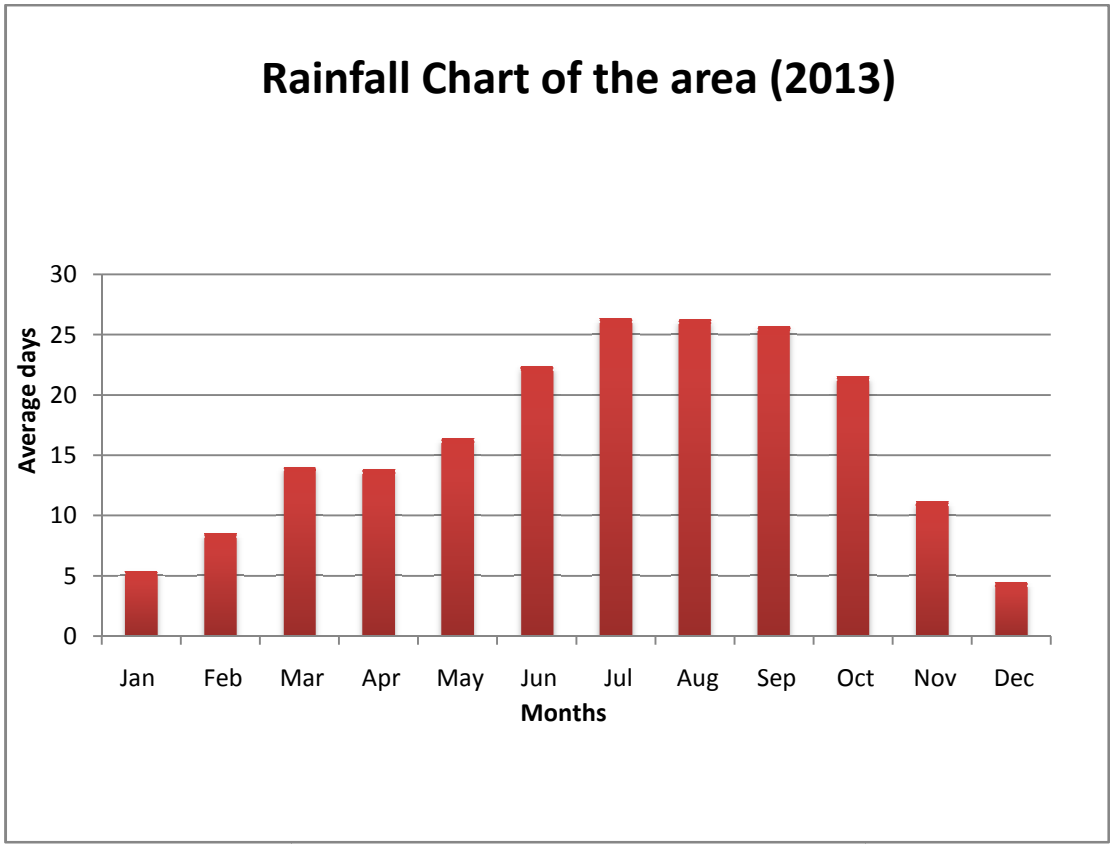


Fig 2: Rainfall chart (CDC 1963 - 1993)

3.1.4. Biodiversity

Mount Cameroon contains high species diversity and endemism in its flora and fauna. The region also has an unbroken sequence of vegetation from lowland evergreen and montane forest, highland Savannah, mangroves and swamps to sub alpine prairies near its summit. At least 2,300 Species of plants in more than 800 genera and 210 families have been recorded. Out of these, 49 species are strictly endemic and 50 near endemic plant species. Of the 49 strictly endemic species, 4 are at the montane grassland, 5 between montane grassland and forest ecotone, 11 at sub-montane and montane forest and 29 at lowland forest of which 17 are newly discovered during the last decade of forest inventory (Cable and Cheek, 1998). *Prunus africana,* which occurs in the montane and sub-montane vegetation type, is the only plant species considered threatened as a result of overexploitation. The region is also very diverse in fauna with over 370 species recorded. The sub-montane and montane habitats are part of the Cameroon Mountain Endemic Bird Area (EBA). So far, 210 species of birds have been record out of which 8 are threatened and 2 strictly endemic Mt. Cameroon Francolin (*Francolinus camerunensis*) and the Mt. Cameroon Speirops *(Speirops melanocephalus*). Large mammals include the Forest Elephant (*Laxodonta africana).* Survey carried out in 2003

indicates a population of 176 individuals (Atanga, 2003). A total of 70 species of butterfly (3 endemic) has already been recorded. The population of Drills (*Mandrillus leucoplaeus*) and Chimps (*Cucopetyeus preussi* and *Cercopithecus erythrotis*) is fast dwindling due to hunting pressure and habitat loss (Tanyi, 1998).

3. 1.5 Demography

The population is estimated at about 300,000 people of whom two-thirds live in urban and Semi-urban areas, while the rest in villages. The settlement pattern forms a closed ring around the foot of the mountain with no permanent settlements on altitudes above 1500m. The people indigenous people in the area are the Bakweri, Bomboko, Balondo and Bakolle (Ekane, 2000). In all the villages, the population is expanding from both natural increase and Immigration. These people are predominantly farmers, hunters, pit sawyers, fishermen and traders (Ekane, 2000) along the Atlantic coast. They depend either directly or indirectly on the resources of the MCNP and its peripheries.

Most of the smaller settlements of less than 500 inhabitants have mainly indigenous population, the larger settlements show a high concentration of non indigenous population, made up of the; North-westerners, Bangwas, Banyangis, Balondos and Nigerians. Emigration and Immigration have been marked in this area. The Cameroon Development Corporation (C.D.C) and PAMOL industrial agro-plantations in the Mount Cameroon area have attracted workers into the area, as many picked up employment in the vast plantations. Upon retirement, these workers re-settle in the nearby villagers with their entire families. They pick up other economic activities like trading and subsistence farming. With recent decline of employment in the plantations, retrenched and retired workers as well as their families acquire farmland in the area for agriculture. Attractive prices for agricultural produce and high soil fertility of the area are major reasons for the increasing immigration.

3. 1.6 Socio-economic activities

Food crop farming is the most important source of livelihood of the population around Mt. Cameroon. The forest as a direct source of income and subsistence through hunting and gathering is of secondary importance to the overall population. Some of the subsistence agricultural products grown in the area are plantains, cocoyam and cassava and contribute more than twice as much as cocoa and coffee to the daily livelihood. However, cocoa remains the main bulk income earner of the area. The CDC (Cameroon Development cooperation) is the only company doing commercial agriculture in the region and has employed many of the

indigenes to provide cheap manual labor. Other sources of livelihood and income for rural people in this region include hunting, livestock rearing, petty trading, tapping, timber and fuel wood harvesting, gifts, beekeeping, tourist guiding/porting as well as traditional healing.

3.1.7 Agriculture and Livestock

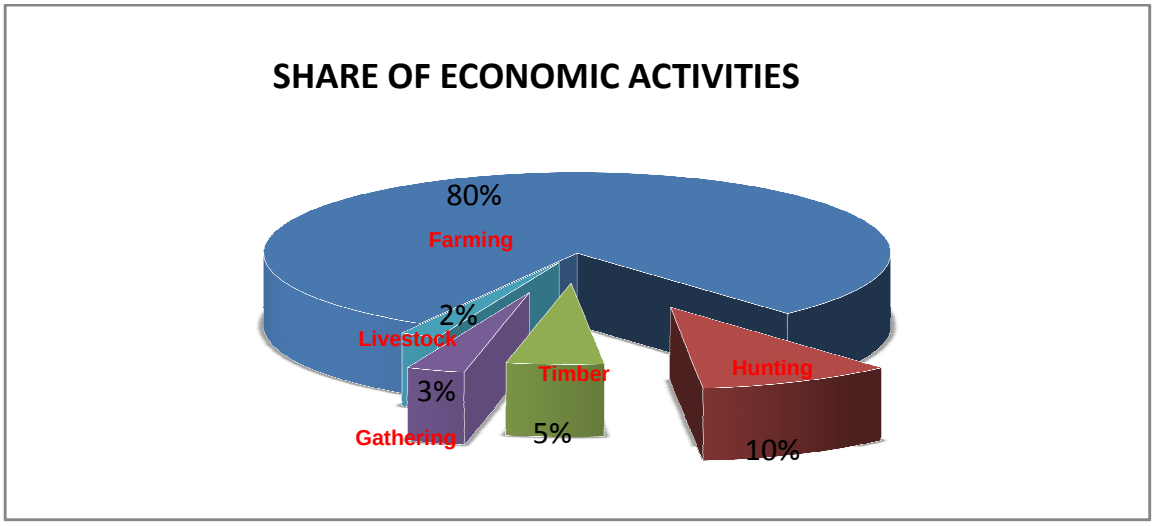
Agriculture is presently the most important economic activity carried out in the area, employing about 95% of the population, while timber exploitation, hunting and petty trading are also practiced by some inhabitants. Farm sizes range between 0.25 ha to more than 10 ha. of Cocoa farms in the Mt Cameroon area generate more significant benefits for conservation and local livelihood than commercial plantations, roughly 50 tree species are commonly retained or planted in cocoa farms (Sarah et al, 2007) Non-indigenous farmers own the largest farms and account for most of the agricultural production of the area. Market for farm produce is readily available by middlemen, who buy at farm gates.

Livestock rearing is practiced for subsistence and for cultural sacrifices, which require the slaughtering of animals. It is common to find stray domestic animals such as goats, sheep, pigs and fowls in the villages. Cattle rearing have been introduced into the area, mainly grazing in oil palm plantations. Also, grazing of cattle is carried out in the savannah zone of the Bambuko forest reserve. Fishing is carried out in the southern flank of the region pricesly in the Atlantics Ocean mostly by fisher men from Nigeria, Ghana and Mali. Few Cameroonians dabble into this practice or activity.

3.1.8 Timber and Firewood

Most of the timber and firewood for household use comes from the surrounding communal forest. Illegal commercial timber and firewood exploitation is rampant in the area, most of it exploited in the forest reserve by businessmen from nearby towns of Buea, Limbe and Muyuka. The youth provide hired labor for head loading sawn timber and firewood from the tree stump to the roadside. Farmers usually receive small fees from the timber exploiters before allowing trees to be felled in their farms. Actual earnings from these activities are not available, because exploiters are reluctant to provide reliable figures since the activity is illegal.

FIGURE 3: SHARES OF ECONOMIC ACTIVITIES.



(Schmidt Soltan, 2003)

3.1.9 Fauna

Mount Cameroon is home to a wide variety of animals and birds. The sub-montane and montane habitats are part of the Cameroon Mountains Endemic Bird Area (EBA). Twenty of the 28 restricted range bird species of the EBA have been recorded on Mount Cameroon, including the two strictly endemic species (*Francolinus camerunensis* and *Speirops melanocephalus*) (IUCN/WWF, 1994).

So far a total of 210 species of birds has been recorded from the ongoing surveys. Out of these, eight are threatened. These include the Mount Cameroon Francolin (*Francolinus cameroonensis*), the Black Capped Speirops (*Speirops lugubris*) and the Mount Cameroon Rough Wing Swallow (*Psitadoprocne spp*.). All these birds are unique to the Mount Cameroon Region.

The Cameroon Blue headed Sunbird (*Nectarinia oritis*) is endemic. The Grey Necked Picathartes (*Picathartes oreas*) and the Preuss' Guenon (*Cercopithecus preussii*) are rare. Eighty-six (86) reptilian species, representing more than one third of the reptilian fauna known in Cameroon, are found in the Mt Cameroon area, making this site among the richest in the country. Lowland forest had the greatest number of species (58) followed by submontane forest (45) montane forest (21) and marine (4) species. A number of rare or little known reptiles were encountered in the region including: the skin and the blind snake *Typhlops decorosus*. Mt. Cameroon appears not to have any strictly endemic reptile species The Forest Elephant (*Laxodonta africana*) is one of the flagship species of the MCNP. A survey carried out in 2003 indicates a population of 176 individuals in the Mt Cameroon area

(Atanga, 2003). In order to improve ecological monitoring of the Mt Cameroon area, WWF-Cameroon through the WWF Coastal Forests (SAWA) Programme, Limbe recently succeeded to collar three elephants. The third was successfully collared on January 8, 2009 (Janet M, 2009). Preliminary analysis of data from collared elephants showed that all three elephants essentially stayed within the boundaries of the newly established Mt. Cameroon National Park (WWF, 2010).The red-capped mangabey were recorded on Mt Etinde, Nku, (2004) in Fiona et al., (2007) now part of the Mt Cameroon. A total of 70 species of butterfly (including 3 endemic species) is already recorded. Other important species include the drill (*Papio leucophaeus*), and chimpanzee (*Pan troglodytes*). The table below presents some endangered/protected Class A species in the region;

Table 1: Endangered species of Class A

SCIENTIFIC NAMES	COMMON/LOCAL NAME
Loxodonta africana cyclotis	**Elephant/njoku**
Pan troglodytes	**Chimpazee/Ewake**
Galogo (Galagoides) demidovii	**Bush baby/Lunde**
Papio (Mandrillus) leucophaeus	**Drill/Sumbo**
Hylochoeru smeinertzhagent	**Bush Pig/Nguanya**
Perodicticus potto	**Bosmanpotto/Combatta**
Cercopithecus preussii	**Preuss Guenon/Blue Kanass**
Arctocebus calaberansis	**Golden potto/Lyombo**

Tako (1999)

3.1.9.1 Vegetation/flora

Mount Cameroon is known for its exceptional plant diversity and high number of endemic species. Evidence of this richness is that over 2,300 species of plants in more than 800 genera and 210 families, 49 strictly endemic (only occurring on Mount Cameroon) and 50 near endemic plant species (also occurring in Bamenda Highlands, Oku, Kupe, Korup, Obudu Plateau and Bioko) are found in the area. Cheek et al. (1996) argued that almost all of the plant families endemic to Tropical Africa: Huacae, Medusandracae, Lepidobotryacae, Octocknematacae and Hoplestigmatacae are found on Mount Cameroon and the surrounding foothills. At least 42 plant species and three genera are strictly endemic and another 50

species are near endemic to Mount Cameroon (Cable and Cheek 1998, Cheek et al.1994, WWF and IUCN 1994).

The explanation for the high level of endemic plant species and the fascinating pattern of vegetation must stem partly to the fact that Mount Cameroon is part of an important Pleistocene refuge. Owing to its uniquely rich and diverse vegetation, Mount Cameroon has been recommended to become a Centre of Plant Diversity (IUCN/WWF, 1994). Mount Cameroon is also known for its high habitat diversity and exceptional ecological features. It has a wide range of habitats including lowland evergreen rainforest, submontane forest, montane forest, grassland and recent lava flow communities. Because of the heavy cloud cover and the consequent high humidity that envelop the forest at higher altitudes, the submontane and montane forests are also called "Cloud or Mist Forest". The cloud forest is very rich in epiphytes and trees are intensively covered with mosses and vascular epiphytes.

The western slope of the Mt Cameroon is probably the most diverse and richest area of the mountain and appears to be the only area in West and Central Africa where there is an unbroken vegetation gradient from evergreen lowland rainforest at sea level, through montane forest, to montane grassland and alpine grassland near its summit.

This link between ecosystems largely accounts for the biological diversity of the region. Past surveys of plant species had led to the identification of 6 main vegetation types on the mountain with their key characteristics.

3.2 METHODOLOGY;

3. 2.1 Data analysis:

This stage consist of organizing quantitative data or information collected on field through questionnaires, interviews; using analytical tools such as Microsoft excel to process these information to a qualitative one for easy comprehension. In this report, excel has been used to process data and descriptive statistic has been employed for analysis. After all questionnaires were assembled, results from each village was entered into excel on the questions posed (yes and no answers). The answers were then analyzed and their percentages gotten from which interpretations were gotten.

3.2.2. Secondary data

Secondary data was collected from GIZ Buea, WCS, The Limbe Botanical Gardens library, Regional Delegation of forestry and wildlife Buea, WWF-SAWA Forest project-Limbe, The regional centre for development and conservation (RCDC) LImbe, Existing reports of the MCNP, the internet, The Mt. Cameroon Ecotourism Organization office (MTCEO), program for the sustainable Management of Natural resources SW (PSMNR-SW), The Mt. Cameroon Prunus Management Group (MOCAP), library of the Garoua Wildlife College and MCNP Centre Limbe.

3.2.3 Primary data collection procedure

With the help of previous information on the villages in the area by the Conservator of MCNP, all the information was studied and villages selected according to their importance to conservation in the Mt Cameroon area.

Importance here implied villages had the following parameters on which the research was based such as, existence of VFMC, villages closer to the park, those with CIG's and Cooperatives, accessibility, villages with a high number higher number of hunters and agriculturalists, villages mostly intruded by strangers due to its potentials and conflicts faced and lastly those involved in government participation for sustainable resource development and benefit sharing.

This then paved the way for the establishment of a stratified random sampling done without replacement to be done through an eliminatory process of less important villages using the criteria above or similar villages leaving me with just 30 villages out of 41. Out of these 30 villages balloted, 24 of them were chosen 17 were to be visited. Due to bad weather conditions and repetition of some linked villages (i.e. they have a high affinity or alliance with some neighboring villages. We can conclude that they jointly operate due to their size or projected benefits upon largeness ex. Bova I and II).

Furthermore because of the number of villages, there was need for the villages to be stratified per quadrant which enabled further elimination of villages based on the reasons above and also for a clear data analysis to be archived. Below is what was clustered, sampled and visited amongst the villages in the MCNP.

TABLE 2; SAMPLE RESULTS OF THE VILLAGE CLUSTERS

Parks	Total No	Clustered	Village	Villages	Percentages

position (clusters)	of villages	villages	samples	to visit	
South (Bakingili,Buea,woteva)	13	8	4	3	30%
West (Sanje to lower boando)	7	7	6	4	50%
East (Muyuka and part of Buea community**)**	9	9	9	7	53.85%
North (Bombuko zone)	12	6	5	3	25%
TOTAL	41	30	24	17	39.53%

(MCNP, Buea)

After all these analyses had been done in the office, questionnaires were drafted in relation to the problems I sought to resolve. Questions Pertaining to;

- Sex
- Co-management benefits/loses
- Personal opinions

3.2.4 PROBLEMS ENCOUNTERED

- It was a challenge to be accepted to work in the village. These villages, like most rural Villages in Cameroon are very skeptical of strangers. This has been worsened by the fact that other researchers had been to the area; gathered information from them with the promise of better days ahead which they have not seen. Because of this, some respondents either asked for immediate compensation before answering any questions or chased us out of their village.
- A meeting with respondents was a challenge as most of them are farmers and petty traders. Interviews could only be conducted on 'country Sundays' when they do not go to farms or late in the afternoon when they are back from their farms and markets. This presented us with further challenges as it is impolite for a stranger to knock on someone's door late in the evening for interviews

3.2.5 Pretest of Questionnaires

Before the administration of the questionnaire, two eco-guards from MCNP were briefed by me on their role; explain in pidgin English what the questions meant and guiding

the correct tick of response if need arises so as to assure accuracy. A formal letter was drafted by me to all 17 chiefs before the field work began which highlighted my reasons for visiting, date of interviews to be held and questionnaire responses, duration of stay. These letters were sent to the chiefs through the conservator of MCNP.

3.2.6 Semi-Structural interviews

Semi-structural Interviews were held in these villages which focused on;

1. What Co-management is about
2. Identification of partners involved in Co-management within these villages
3. Appraisal of the process of Co-management in these villages
4. Benefits accrued from Co-management in these villages
5. Debate or personal opinion

Most interviews covered a long period of 2-3 hours because of the sensitivity of the topic. In all the meetings or interviews, questionnaires were administered. Four main questions were asked;

- **Has Co-management been beneficial to their community?**

  Yes = some participants though few accepted Co-managements has been beneficial based on governments closeness and disponibility with their community through Conservators and Eco-guards thus facilitating communication between them. Conversely, there were mostly No responses registered because elites; hunters, farmers argued that they have no benefits or even if it exist they have never been part of

- **What new technical skills have they acquired?**

  Professional hunting skills, snail farming etc.

- **Why would they want government to leave the Park or Stay?**

  Yes, most participants said so because they subjectively judged that they were worse of

  Compared to when they hunted, farmed and harvested without any control in this area.

- **Is the Co-management process applicable?**

Yes, but very slow in its application especially in the domain of financial decision and decision making on resources in the Park

Table 3; Population estimate of indigenes around the MCNP

Villages visited	Estimated population	Custer positioning of the Village
3	621	South (Buea cluster)
4	882	West (Sanje to lower boando)
7	1169	East (Muyuka cluster)
3	387	North(Bombuko zone)
17	3059 Persons	**TOTAL**

255 questionnaires in total were administered in all 17 villages. More so, information from the 17 chiefs of villages visited on the population summed up to an estimated sum of 3059 people. A success was registered at the level of the questionnaires. All respondents filled the questionnaires. It should be noted that selection of respondents was based on the following criteria;

- Persons who had participated in Co-management
- Heads of villages notably chiefs, quarter heads and council heads
- Persons in the hunting, agricultural or fishing fields
- Women in the sale of Bush-meat pepper soup, CIG groups, associations and NGO's.
- Trade unionists, conservers of nature and environmentalists.

Table 5 above is a representative of the estimated population of the villages visited; it is also highlighted that, the total estimated population of villages around the Park is about 60,000persons.

CHAPTER IV

RESULTS AND DISCUSSIONS

4.1 Stakeholders of the Co-management Process and their responsibilities

4.1.1. Government of Cameroon (GoC)

The government of Cameroon plays a key role in the Co-management process of the MCNP. This concern is manifested in national, international and sub-regional efforts. National efforts include policy reforms, laws and implementation of relevant measures through the Ministry of Forestry and Wildlife and her external services.

Community based organizations like the VFMCs, MOCAP and Mt.CEO are given a legal status to enable them actively engage in the decision making processes in the management of the MCNP. The government of Cameroon also works hand in gloves with her partner organizations (WWF, GIZ, and the World Bank) to ensure that the support they give is geared towards the development of the Co-management process of the MCNP. The government of Cameroon put in place the PSMNR-SW to come up with workable Co-management strategies in this process.

Even though all these measures have been put in place there is need for government supervision and control to facilitate the process. The GoC being an active member in the Co-management process would have to be more realistic and speed-up process through transparent management conventions to be signed with new partners and the already existing ones in resource management around the park; where all rights and responsibilities are well defined, respected and datelines for all activities known and sanctions meted if decisions are not executed in a given timeframe of the memorandum signed by all parties involved in the process of Co-management in the MCNP area.

4.1.2. KFW (German Development Bank)

Since 2006, KFW has been providing funds through the German Technical Cooperation (GIZ) and PSMNR-SW, for activities that push the Co-management process forward. There has been a renewed intention to elaborate and implement a long term strategy for the management of resources in the MCNP and neighboring regions.

This is a passive facilitator of natural resource management in the MCNP through GIZ therefore there is need for more participation directly with the GoC and the villages around the park through signing of agreements with the GoC, Villages and other NGO's pertaining to; the provision of adequate funding for local village project such as water resource building, road accessibility, community hall, agricultural credits and materials to farmers. Also the bank can put in place a forum where villagers and Germans are employed to follow-up the implementation of participatory decision so as to push forward the management process.

4.1.2.1. Program for the Sustainable Management of Natural Resources (PSMNR-SW)

Based on the philosophy or principle of reconciling conservation with development, the Program for the Sustainable Management of Natural Resources- South West supports the park in implementing community development activities. The sum of one hundred and sixty-five million francs CFA (165000000FCFA) was used to fund community based development activities in the MCNP in one year or more years…. This included the implementation of selected priority projects and elaboration of village development plans. This program intervenes in the following main areas:

- Support VDPs and implementation of priority measures.
- Build capacity of VFMCs
- Animate VFMC platform
- Elaborate, implement and monitor a collaborative agreement for the harvesting of Prunus and other key NTFPs in the park
- Support and develop the organizational capacity of MOCAP
- Support development and the implementation of a marketing strategy for MOCAP
- Support domestication of Prunus
- Elaborate, implement and monitor a collaborative agreement on accessibility to sacred sites (traditional rites in the park).
- Elaborate, implement and monitor a collaborative agreement on the management of 6,000 ha of BFR.

PSMNR-SW has been instrumental in the sustainable management of the park's resources. Being an active contributor towards Co-management it is hoped by 2016 the process is completed. Though one of the supportive arms of the process, she has got to engage more in capacity building of the villagers. Livelihood development such as modern bee keeping with

Innovations that include modern techniques of harvesting honey as well as the farming snails and mushrooms

4.1.2.2. The World Bank

A World Bank sponsored project is being elaborated that is going to attract 2million USD (about one billion CFAF). These funds are going to help develop eco-tourism activities in the area notably;

- Develop the MCNP Management Plan
- Provision of technical assistance to Mt CEO
- Establish a good reception and parking area
- Rehabilitate an expand ecotourism infrastructure
- Encourage the Mount Cameroon race of hope

This is a passive member in the process of Co-management because little has been done when it comes to her functions. The World Bank has got to speed up the process of Co-management by assembling all parties once every month to obtain contributions in developing a 5year management plan.

4.1.2.3. WWF Coastal Forest (SAWA) Project, Limbe.

It supports the park in technical services such as Ecological Monitoring, Boundary tracing, inventories and others. Technical equipment for forest activities such as GPSs compasses. Logistics :(sleeping tents, vehicles and others)

WWF Coastal Forest (SAWA) program recently succeeded to collar three elephants in the park. The third was successfully collared on the 8$^{th\ of}$ January 2009 (Janet, 2009).

Early analysis of the three collared elephants revealed that they essentially dwelled within the boundaries of the MCNP, (WWF, 2010). The World Wide Fund for Nature is currently working with the “Elaboration Committee” to come up with the final management plan of the MCNP.

This is one of the main partners of all parks in the SW region her functions have been indispensible and continue to provide equipment for the parks service so as to facilitate the Co-management process.

4.1.2.3. The local communities

The local communities around the MCNP depend solely on forest resources for livelihood sustenance. The sustainability of the collaborative management process will depend on the active participation of these stakeholders. Firstly, they have to adopt a sustainable habit of using these resources. If they are well sensitized they will in turn do same to other immigrants in the area. The chiefs and their traditional councils play a paramount role in organizing their communities so that collaborative management engagements will be respected and benefits accruing from it are shared equitably partly used for conservation friendly activities.

There is the need to carry out convincing sensitizations and candid declarations of the benefits resulting from the concession are to be disclosed to the partners and equitably distributed. This goes a long way to reconcile the thought of losing their forest to government thus a sustainable resource management achieved

4.1.2.4. MOCAP

This structure was created in August 2000 with assistance from the Mount Cameroon Project as the Mount Cameroon Prunus Management Company Ltd. (MOCAP). It has over the years contributed to community development. So far, MOCAP has been able to exploit and market 162 tons of Prunus backs and divided as follows; 100 tons in 2003, 47 tons later and 15.518 tons on the 25/07/2012. The benefits are shared among the communities working in partnership with the MCNP. Also, some 8500 Prunus seedlings were distributed for planting by local inhabitants.

In 2006 Cameroon was suspended from the exportation of Prunus by CITES because of unsustainable harvesting methods perpetrated by PLANTECAM (a pharmaceutical company based in Mutengene at the time). PLANTECAM was later closed by the Government of Cameroon (GoC) with the creation of the MCNP in 2009. MINFOF took steps to comply to CITES conditions (inventory, development of a Prunus management plan, etc.) and its partners then went into negotiations and the band was uplifted in 2010.

As a collaborative management method is being put in place, MOCAP, Park services and partners re-organized the exploitation of Prunus and divided the mountain into five blocks for a five year rotational interval of sustainable harvesting. MOCAP, assisted by the park service signed a Memorandum of Understanding with member villages in order to ensure sustainable harvesting. MOCAP trains sustainable harvesters. The first block is being harvested now and the total volume to be removed is 800tons. A unique buyer was selected (AFRIMED) from a list of companies in Douala, and a Memorandum of Agreement was signed between AFRIMED (highest bidder) and MINFOF. It took over from SESPO-SARL, the former buyer. The price per kg was agreed at 350fcfa and the lone supplier is MOCAP. AFRIMED cannot buy Prunus from any individual or group of persons from the Mt Cameroon region except from MOCAP. The commercialization of Prunus gives a lot of revenue to the different stake holders. It has to be sustainably harvested and transported to the ware house in the nearby villages.

Information gathered from MOCAP says, following the organized methods, harvesting is all year round and sales can be done 12 times in a year. In a single sale, an average of 15,500kg are sold (15.5 tones) generating an average amount of 5 425 000Fcfa. Annually, averagely 188 tones sold for 65 100 000 FCFA. On the 25th of August 2012, 15 518.5 kg (more than 15 tones) of *Prunus africana* harvested from the Bomboko cluster (plot 1) was sold for an amount of 5,431,475 (five million four hundred and thirty one thousands, four hundred and seventy five francs CFA).

Finally, MOCAP has been very successful in the sales of *Prunus africana* gotten around the MCNP but has failed to equitably distributed revenues. Most harvesters are disgruntled because they believe they are under paid taking into consideration that they ones sold Prunus without any control. Therefore, this warrants MOCAP to redraft the percentage sharing of revenues or increase considerably the salaries of the villages so as to achieve the goal of sustainability in resource management and conflict management.

4.1.2.5. Mount Cameroon Ecotourism Organization (Mt CEO)

The eco-tourism potential of the Mt Cameroon Region in general and the MCNP in particular cannot be over emphasized. It was in realization of this value through the then Mt Cameroon Project, that the Mt Cameroon Ecotourism Organization was formed (11/03/2000). Its status was changed on 02 October 2002 as the Mount Cameroon Inter-communal Ecotourism Board (MOUNT CEO) having the slogans" TAKE NOTHING BUT PICTURES"

The main objectives of this organization are the promotion of biodiversity, conservation, and development of ecotourism for the improvement or the living standards of the local communities around this area. Over the years, through the support of GIZ, and WWF, MOUNT CEO has been able to develop both ecotourism packages and the basic infrastructure needed. Between 2000 and 2009, MT CEO has been able to facilitate the visit of 7377 tourists into the Mt Cameroon Region, amounting to total revenue of 135 million FCFA; part of which was used for socio-economic development of the local communities as well as for the management of the organization (Mt CEO, 2010).

In order to improve on, and expand her activities as well as ensure sustainable exploitation of the ecotourism potentials of the Mt Cameroon Region, Mt CEO signed on 18th July 2006 a Partnership agreement with the Ministry of Tourism. Though the Mt Cameroon NP area constitutes an integral part of the zone for the implementation of the agreement, no allocation for entry fees was foreseen for park management. It should be noted that the agreement was signed before the establishment of the park.

Recently the elaboration of a World Bank-sponsored project for the development of ecotourism in the Mt Cameroon Area was initiated. This project, valued at USD 2million is to intervene in the following main areas.

- Development of the Mt Cameroon tourism management plan
- Provision of technical assistance to Mt CEO.
- Establishment of reception and parking areas
- Rehabilitation and expansion of ecotourism infrastructure(MINEPAT,2010)

One important objective of Mt CEO is the transformation of hunters to porters. So far, Mt CEO has transformed and trained 52 hunters to tour guides and porters. Mt CEO created Village Ecotourism Committees (VEC) who identify hunters and bring them for training as porters and tour guides. Within the frame work of partnership that Mt CEO has with MCNP, there on-going efforts take on board some hunters to be employed as watchmen, cleaners and others. Mt CEO has sponsored income generating activities (IGAs) in 09 active villages (villages that submitted engagement letters to Mt CEO requesting to participate in biodiversity activities). The IGAs include plantain multiplication (2000 plantain suckers were successfully multiplied in Bova village in 2009), bee farming and snail farming.

4.1.2.6. The CDC

The Cameroon Development Corporation, an agro industrial complex, second employer in Cameroon after the State, has most of the plantations around the Mt Cameroon region. Her plantations cover a surface area of 40,000 ha and have a direct impact in the management of the MCNP in the sense that farmland has become scarce in the southern peripheries. Plantation workers are forced to encroach into the national park for their agricultural activities. Furthermore, these plantations attract labor force from all over the region, hence increasing the pressure on the forest resources in the MCNP.

The CDC has been more of a problem to the park's existence because it conflicts land ownership with the park's periphery and sometimes encroach in agricultural land of the villagers. This disturbs the smooth functioning of the Co-management process because elites complain they don't have enough farmland cultivate on. The negotiations on-going for the retrocession of part of the CDC land at the peripheral areas for farm land have got to be accelerated so as to resolve the problem inadequate cultivable land.

4.1.2.7. Village Forest Management Committees (VFMC)

A total of 41 VFMCs were created in the village communities that border the MCNP. This was facilitated in 2008 by the PSMNR-SW, phase 1. Their roles are clearly defined and made known to all stake holders in order to avoid conflict with the village traditional councils. The composition of the VFMC is as follows:

- The chief of the village
- One member of the village development committee
- One representative of the external elite
- One representative of the internal elite
- Two representatives of women associations
- One representative of famers
- One representative of the youths

The VFMCs have the following animation and sensitization functions:

- They organize discussion/information sessions with the villagers
- They participate in improving knowledge on the forestry law
- They participate in the vulgarization of the different management plans
- They participate in the protection of the environment
- They listen to the villagers and transmit their suggestions to the MCNP services.

- They search and disseminate all relevant information in relation to the management of the forest.
- They participate in organizing the population.
- They participate in the realization of socio-economic surveys
- They participate in the mapping of the different zones of the forest
- They give their opinions on the strategic management plan of the management units
- They share information between the administration and the village communities
- Participate in monitoring the proper execution of the management plan
- They keep a record of the human and material resources available within the village
- Execute or organize the execution of certain conservation activities
- Contribute ideas for the review of the management plan
- They organize surveillance patrols along the limits of the MCNP
- They report to the chief of forestry post, all illegal activities in and around the MCNP

The constitution of the VFMC is by public elections in an enlarged village meeting. The bureau is made up of the president (chief or community leader), the secretary, the financial secretary and the treasurer. Members have a three year renewable mandate once with the exception of the chief as a permanent member replaceable only during his succession as chief or at death. Members who are inactive, die or migrate are replaced according to internal rules and regulations. The secretary, financial secretary and the president are the three signatories as far as withdrawals of finances are concerned.

The VFMC being a new village committee just as the Park's creation (2009) has not been fully operational in all her functions (i.e. activities delegated from government to them are not constant and takes time to come; there is no existence of a management plan).

Eventhough with the plenty of responsibilities slated on the memorandum of understanding, they still feel very comfortable with it because of their functions which pertains to protecting their resources, educating their elites on current wildlife and flora issues and collaborating with government which to them are steps to acquiring more benefits from these collaborative participation with the government, partners and their environment. Moreso, the ease with which they execute participatory management decisions (taking into consideration the chief at the helm) makes their assignments lighter, flexible and appreciable. The involvement of the chiefs and government in sustainable resource management in the MCNP has made it extremely difficult for political and influential elites to convince the local population on any better management system of resources though some efforts have been

made by powerful financial and positioned elites to control resources around Park without any control . All their efforts have often times resulted to illegal transactions of resources thus attracting sanctions and penalties. There is therefore a growing apathy of resource control around the MCNP by influential political elites or financially well placed individuals due to the legislation (1994 wildlife law) protecting these resources.

The VFMC has stood as backbone to participatory management in the MCNP because of its outstanding roles and successes registered in resource management. All villages around the park now have VFMC and by my data approximately 85% of the members are fully informed on the roles of their members since the members are much diversified in capacity and functions. This has therefore given way for government to be able to transmit information legally to the villages and thus facilitating the Co-management process in that area. This set-up has the following positive values;

- It demonstrates democracy through its voting system which involves public elections thus making it free and fair
- The is gender equality taking into consideration in its composition
- It takes into consideration the highest authority of the area
- It tries to cover all elites within and without the village through its diversified membership set-up system.

4.1.2.8. Cluster Facilitators

A cluster facilitator is a woman or man who must be an indigene of one of the cluster villages and has as functions (responsibilities):

- To ensure the flow of information between the target villages and the park services.
- To update on regular basis the park service's on CDA implementation progress and follows up the cluster collaborative management activities.
- To assist in the creation and animation of working committees in the villages and facilitate service provider's activities
- To animate Village Forest Management Committee (VFMC) and facilitate cluster platform discussions/negotiations.
- To contribute (take part in) to data collection for baseline studies, ecological monitoring, and participate in conservation activities.

They have held participation in resource management through working closely with conservation partners and reporting directly to the head of CMU unit and park warden thus encouraging Co-management movement.

4.2. Evaluating the Co-management process in the MCNP.

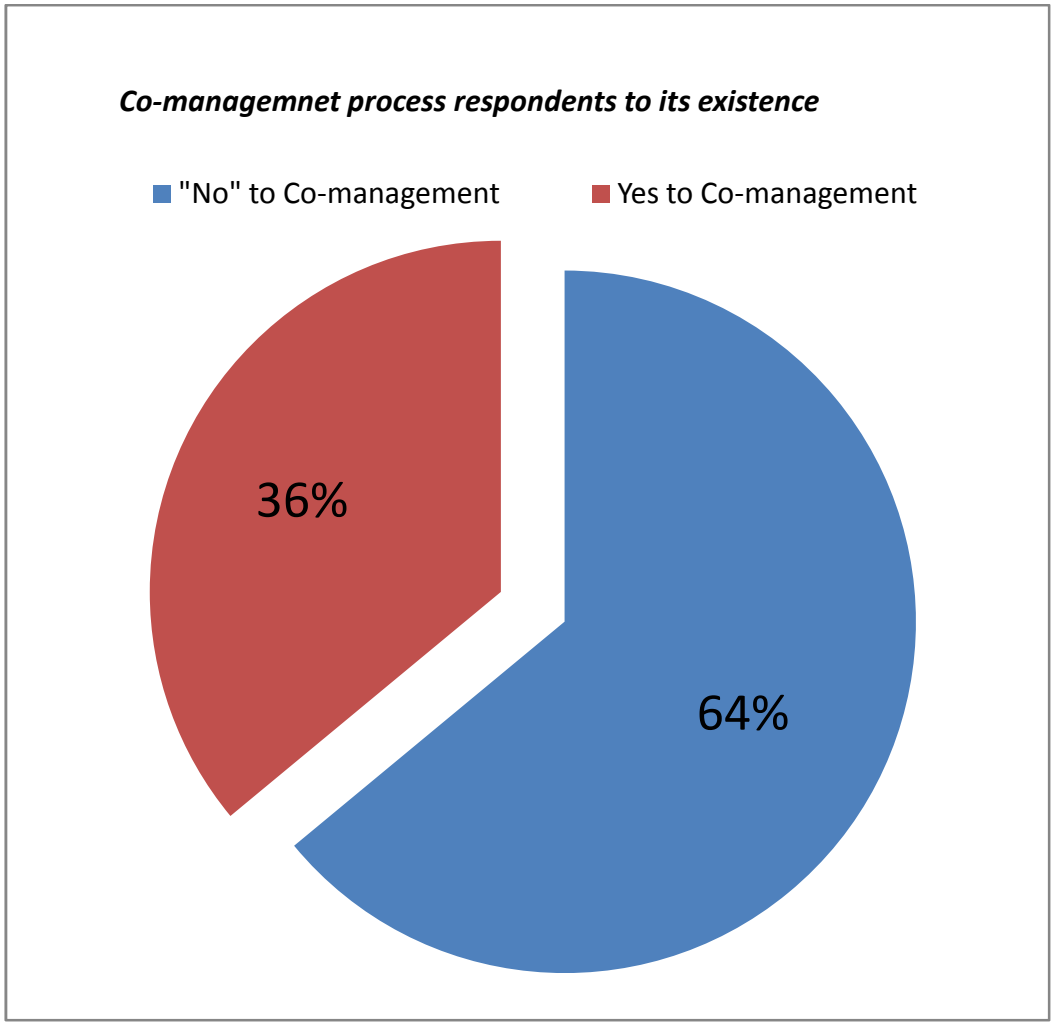
4.2.1. Co-management Strategies in the MCNP

This evaluates the processes of Co-management using information from the interviewees and to determine if there are any considerable benefits to sustain the process continuity and acceptability. There are four main stages identified in the Co-management process and this would be used to guide the process assessment in this study;

1. Preparatory phase
2. Negotiation of plans and accords of Co-management
3. Execution of these plans and accords
4. Analysis and management of conflicts

From fig 4 below, the following results can be summarized. It was found out that all persons directly or indirectly linked to participatory management of natural resources within this region had an idea of what Co-management was but the main worry was if it should be maintained or not.

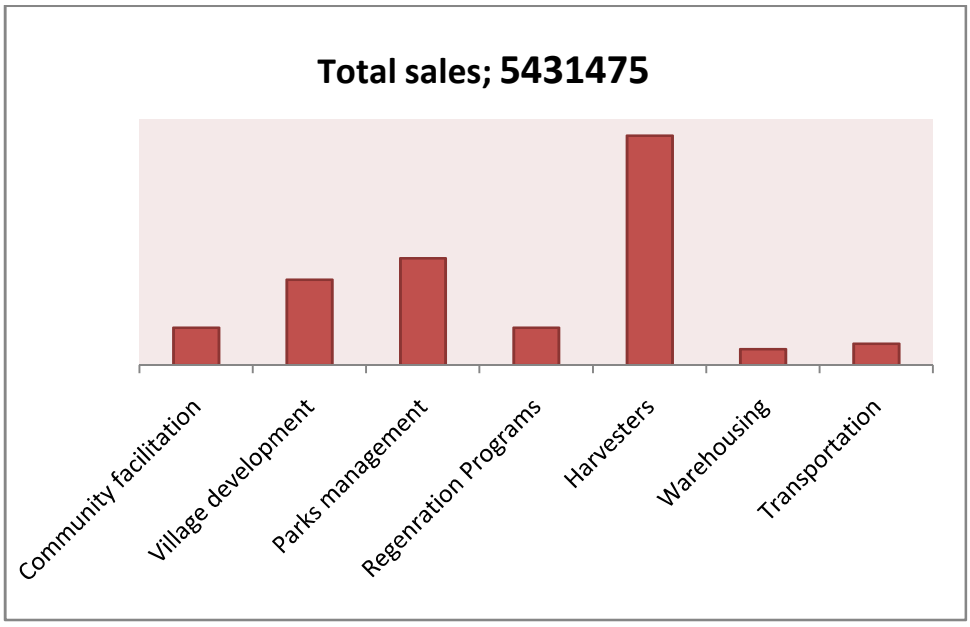
Fig 4; Respondents to interview on Co-management process



Visibly the percentages illustrate the villagers' wishes (64%) was not in favor of Co-management while 36% was for Co-management. It should be noted that most persons in favor of the process were those directly benefiting from the proceeds of mixed management.

Some interviewees based their disgruntlement on the fact that they had witnessed many projects/programs that came and went within a short time but without any much impact on livelihoods. Village development projects were abandoned halfway and eventually collapsed. They highlighted that "The Global Environment Facility (GEF)". "The Rattan Project" and the» Mount Cameroon Project (MCP) Limbe", all came and went with no sustainable impact on livelihoods. They argued that their rights are been tempered with, reasons being that the resources have been there since the antiques and now they are been deprived from using them independently. Despite this pessimism, the program has conducted some negotiations on the price, benefits sharing and decision making on some resources. One most prominent example is *Prunus africana* sales/benefit sharing rates of MOCAP.

Fig 5: Prunus benefit sharing of the 12th of June 2013 in Mondongo village, Bomboko cluster

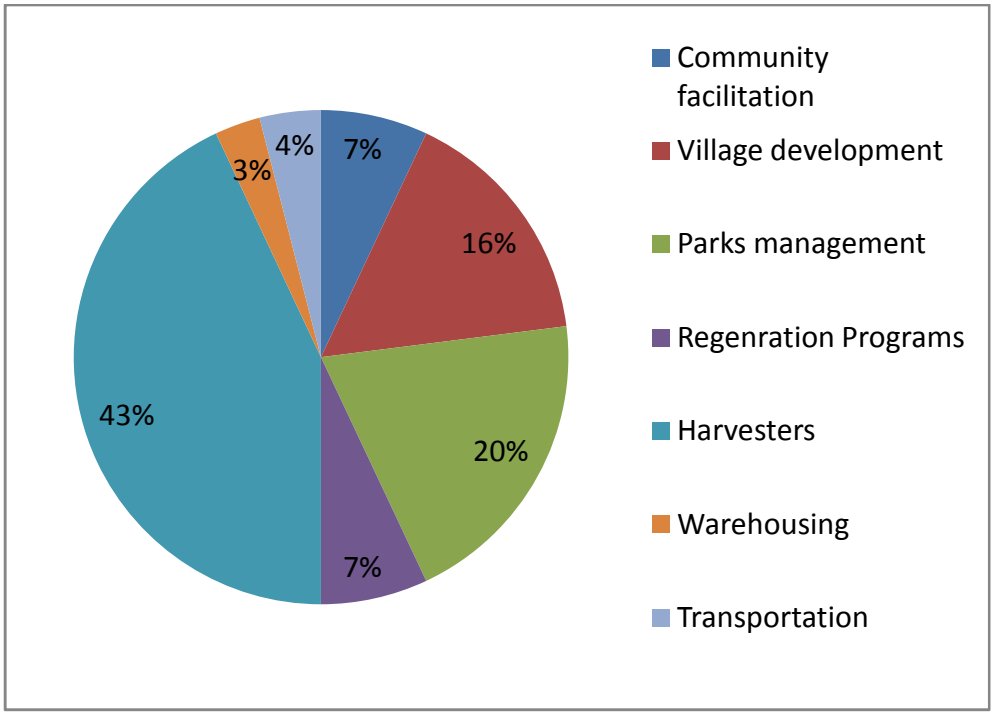


The following heads are concerned in the exploitation of Prunus as seen in figure 7:

- Harvesters; these are the persons responsible for peeling the barks of the Prunus tree in the mountain and preparing it for transportation.
- Village development projects were responsible for financing of village projects
- Community facilitation for the Payment of MOCAP staff and running of MOCAP office
- Parks management contribute to the running cost of MCNP services
- Regeneration program responsible for financing Prunus nurseries and distribute seedlings to communities for planting
- Transportation responsible for the transportation of Prunus backs from the Mountain to a nearby warehouse.

It can be seen on fig.6 chart below that, 43% of revenues went to harvesters because the greater bulk of the work was done by them, 20% to parks management, and 16% to village development, 7% for community facilitation, 7% for regeneration programs, 4% for transport and lastly 3% for warehousing.

Fig 6: Represents benefit sharing rates of revenue generated by Prunus.



4.2.2.1. Controlling conflicts in the Co-management process in the MCNP

4.2.2.2. Cluster concept and functionality;

The park has been sub-divided into various management units which facilitate collaborative management. These units are known as Cluster Conservation Zones (CCZ). There are no official or traditional boundaries. Several villages have been grouped into clusters on basis of their geographical and ecology locations. The villages of one cluster are co-responsible for conservatory activities in its cluster zone. The villages of one cluster zone are organized into cluster platforms and could be from different chiefdoms.

This has facilitated flow of information smoothly from one cluster to the other taking into consideration all the villages in one cluster thus facilitating village participation in the Co-management process. This has been carried out successfully in the MCNP.

4.2.2.3. The cluster platform

This is a forum where Village Forest Management Committees (VFMC's) and conservation partners meet regularly to plan and coordinate conservation efforts between villages. This platform is composed of three (3) members from each VFMC and must include

one female (1). This platform is also to be used for conflict mitigation, for formulating common bylaws for natural resource use with emphasis on access to the MCNP, NTFP collection user rights and others. The cluster platform prioritizes conservation objectives within the Cluster Conservation Zones and proposes a working plan for collaborative actions. Acceptable conflict controls can easily be achieved and guaranteed if all stakeholders take an engagement in signing acceptable accords and a memorandum of understanding amongst GoC, MOCAP, VFMC, Mt. CEO, CDC and the local communities. The conservation partners of the government of Cameroon play a facilitatory role and should be involved in signing the memorandum of understanding; KFW through GIZ, WWF, World Bank, PSMNR-SW.

The cluster platform has not been very successful in the Co-management of resources because stakeholders or partners have not agreed on accord and memorandum of understanding thus making their engagements legal. It would therefore be necessary for VFMC's to sign accords with Conservation partners so as to be able to manage conflicts and sustainably manage resources around the park.

4.2.2.4. Conservation Development Agreement (CDA)

The CDA is a written agreement between the park services and villages in order to prove their willingness to collaborate in the long term protection of the park and in village development.

It is a negotiated between the park service and a village, signed by relevant authorities (the conservator and the traditional council). However, during the negotiation set up phase of the CDA, various stake holders on village and park level will be involved. Here the role and responsibilities of each partner, incentives for collaboration will be clearly defined. A procedure that will follow predefined steps has to be respected and includes:

- Debriefing meetings
- Cluster sensitization meetings (all cluster zones defined)
- Village sensitization meetings (including agro socio-ecological assessment).
- CDA consultations
- Elaboration CDA
- Signing of CDA (MoU's)
- Implementation.

This has given a legal status to the CDA thus guaranteeing government success in implanting her sustainable management process and conservation programs through the support and willfulness of villages to fully engage in their responsibilities without failure.

4.2.2.5. Conservation Credit (CC)

These are incentives generated through the participation of villagers in paid collaborative management activities. The individuals are paid for their participation in the work while the village earns some credits. These credits are recorded in a book to which both the park services and village communities have access. The conservation credits gained is regularly updated during Cluster Platform Meetings.

Conservation credits can be used to measure the rate at which Co-management activities are carried out in the MCNP area thus leading to the development and conservation of resources the area.

4.2.2.6. Conservation Bonuses (CB)

The program is funding income generating activities that have been selected based on the experience of the PSMNR, phase 1. Income Generating Activities agreed upon in a village will depend on the results of the Agro-Socio-Economic Assessment (ASEA) and also of financial feasibility. Potential IGAs are negotiated in villages during ASEA. Income Generating Activities might work through individuals but will eventually benefit the whole community. So the CC can be partially used. IGAs supported by the PSMNR have to be environmentally sustainable and should not conflict with conservation objectives. IGA projects with the following focus would likely be funded:

- Training on improved and sustainable agricultural practices (cassava, yams)
- Mixed Agro forestry systems (cocoa, oil palms, NTFPs) through the establishment of nurseries.
- Introduction and multiplication of improved varieties (e.g. cassava).
- Value Chain improvement (e.g. cassava improvement)
- Promoting the commercialization of sustainably harvested NTFPs, in the area.

Conservation bonuses have contributed to the successful implementation of alternatives to illegal hunting and the dependence on the MCNP's resources for livelihood. These activities have boosted the economic and social aspects of most villages through employment, infrastructural constructions, skill apprehension... which have all clustered to improve living standards in the area.

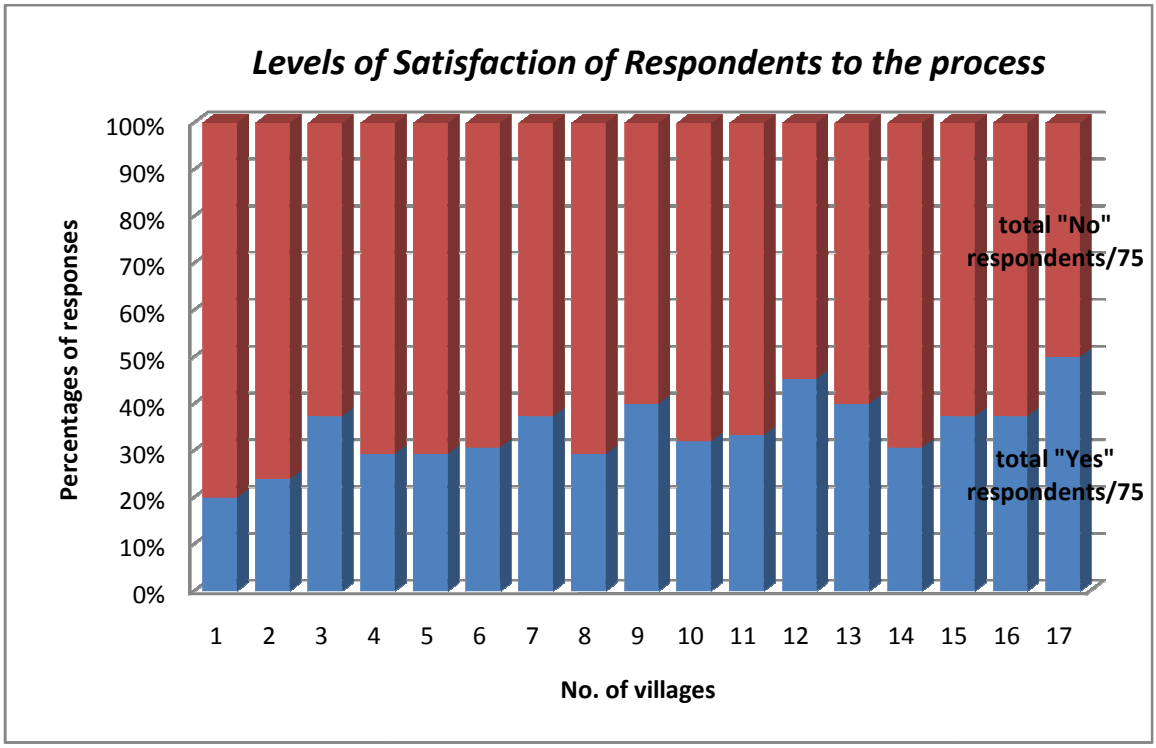
Most of the indigenes around the MCNP are directly or indirectly aware of government participatory involvement efforts in managing natural resources around the park for sustainability. Negotiations on the memorandum of associations exist but are slow and inconsistent in the MCNP area, and this therefore leads to an incomplete and irregular execution on the accords signed. There exist many conflicts due to the fact that the process of Co-management is still at a baby stage in MCNP area. The main area of conflict is for government to be able to reconcile benefits gotten from Co-management to the local communities and benefits gotten without co 'management by the local population.

It has been projected that, by the end of phase two of PSMNR-SW in 2016, this process must have been completed. The elaboration of the management plan of the park would have been completed. Village sensitization in all villages that make up the four clusters of the park will be completed. Roles and responsibilities of all the partners and major stakeholders must have been clearly established. The power distribution on access, control, utilization, decision making on management alternatives would have been clearly stated, all this will pave the way for a comprehensive management convention to be signed.

Nevertheless, the situation of the Co-management process as of August/September 2013 is ongoing with the organization and engagement of parties concerned by the GoC, preparing reunions of negotiations, agreeing on the rules and procedure of benefit sharing, elaborating a common vision plan, carrying out an analysis of the strength, weaknesses, opportunities and threats(SWOT) in the MCNP, negotiating plans and accords of the Co-management process (by soliciting advice from specialists, remedy for conflicts and inconsistencies)

4.3. Assessing satisfactions of the local population in Co-management of the MCNP

Fig 7: Responses to questionnaires by villagers per village visited



From figure 7 above, the low satisfaction of respondents can be explained by;

The low rate at which village projects are been implemented. If higher satisfaction is to be derived, partners have got to boast the rate at which village projects are perceived, developed, executed and controlled.

Also the shallow level of satisfaction levels could be explained by the fact that human capacity building, one of the goals of partners such as WWF, has not been implemented because averagely most of the villages are still lagging behind due to incapability of raising funds to start up several introduced alternatives to livelihood. They need more technical and scientific skills to undertake these practices e.g. pig farming, bee farming, cane rat rearing among other income generating activities introduced.

There is therefore the need for GoC to establish accords with partners and villages concerned pertaining to human village capacity building through workshops held by specialists to impart intensive agricultural skills, livestock farming techniques, professional hunting skills and tools since hunting for Bush-meat is a major activity around the farms, and in the forest and grassland of the Mount Cameroon. Investment should be made in the education of villagers with more technical knowhow in the introduction of other activities like poultry farming, piggery farming, mushroom farming, rabbit domestication and others in which 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.

It can be seen that a satisfactory level in the Co-management process of the MCNP is very shallow and therefore require more adjustments by partners and the Government of Cameroon in the area of benefits/livelihood improvements which will restore the lost confidence in the process of Co-management and thus lead to achievement of Co-management.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 Conclusion.

Based on the specific objectives above our conclusion assumes three related phases on the sustainable management of natural resources around the MCNP. Firstly, it was realized that many partners (WWF, PSMNR-SW, World Bank…) took interest in the MCNP due to its rich diversity and therefore saw the need for its conservation. Most of their rights and responsibilities have been established despite the many conflicts registered as a result of no official convention signed binding these obligations and benefits.

Secondly, the Co-management process by this research can be described as shallow. This is because negotiations of accords and the signing of the memorandum of understanding are currently going on among the GoC, the Villages and NGO's which are slow and inconsistent. Thirdly, satisfaction levels pertaining to participatory management and benefits still stand very low because Co-management has not been able to reconcile more benefits guaranteed now/ future and the revenues the villagers received when no control was obtained. There are so many doubts if Co-management should exist in the minds of the villagers.

Lastly, Co-management has got positive impacts on resource availability and sustainability, human capacity building… in the MCNP. One of the most prominent is the continual existent of *Prunus africana* in the zone. If biodiversity in the park was to be left in the hands of villages many species depletion would have been registered and more conflicts for hunting ground. Time has proven that no effective sustainable resource management can be done without the active participation of the villages where the resources are found. Therefore, if the GoC has to succeed in his procedure of the Co-management process, more adjustments by partners and her is to be made in the area of benefits/livelihood improvements and decision involvement by villagers which will motivate and restore the lost confidence in the process of Co-management and thus give room for proper management of resources sustainably.

5.2 Recommendation

✓ **TO THE GOC;**

- The GoC being an active member in the Co-management process would have to be more realistic and accelerate the process through transparent management of conventions to be signed with new partners and the already existing ones in resource management around the park; where all rights and responsibilities are well defined, respected and datelines for all activities known and sanctions meted if decisions are not executed in a given timeframe of the memorandum signed by all parties involved in the process of Co-management in the MCNP area.

✓ **TO PARTNERS;**

- There is need for more participation by KFW with the GoC and the villages around the park through the signing of agreements with the GoC, Villages and other NGO's pertaining to; the provision of adequate funding for local village project such as water resource building, road accessibility, community hall, agricultural credits and materials to farmers. Also the KFW bank could put in place a forum where villagers and Germans are employed to follow-up the implementation of participatory decision so as to push forward the management process.

- PSMNR-SW has got to engage more in capacity building of the villagers. Livelihood initiatives such as modern bee keeping with innovations like modern techniques of harvesting honey as well as the farming of snails and mushrooms

- The on-going negotiations for the retrocession of part of the CDC land at the peripheral areas for farm land have got to be accelerated so as to resolve the problem of inadequate cultivable land.

✓ **TO LOCAL COMMUNITY**

- VFMC's should be facilitated with respect to signing accords with Conservational partners to be able to manage conflicts and sustainably manage resources around the park.

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APENDIX

Appendix 1. Access and benefit sharing of *Prunus africana*

- Sign Memorandum of Understanding Between Park Management, Community (MOCAP) &

Economic operator (Endorsed by Government)

- Park Service and MOCAP
- MOCAP and Economic Operator

Purpose:

- Clearly define roles and responsibilities of each party
- Facilitate sustainable harvesting, marketing and fair and equitable benefit sharing of revenues.
- Elaborate and agree on benefit-sharing mechanism
- Benefit sharing mechanism linked to the wider CDA development process, to enable the villagers see the link between the benefits and conservation activities in the Park.
- For Prunus found in Community forests areas under a separate MoU.

BENEFIT SHARING SCHEME

No Description	**%**	**Beneficiary**
1.Harvesters, field equipments, Medicat²ion	43	Community (MOCAP)
2. Village Development Fund	16	Villages
3.Facilitation of community Participation (plus libation)	7	Villages
4. Park management	20	Park Management
5. Regeneration of Prunus trees MOCAP	7	Park Management
6.Transport	4	MOCAP
7.Warehouse	3	MOCAP
Total	100	

Appendix 2.A copy of the MoU on the exclusive sales of sustainable harvested *Prunus africana* backs in and around the MCNP between:

The Mount Cameroon Prunus Management Common Innitiative Group MOCAP-CIG and AFRIMED SARL (Baffousam). .

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