

## Women and Non Timber Forest Product Exploitation: the case of *Prunus Africana* in the Highlands of Mount Cameroon

ABANDA NGONO Fernande<sup>1</sup> and NZINO MUNONGO Victorine Ghislaine<sup>2</sup>

<sup>1</sup>Researcher in the department of environmental and economic studies in the National Education Centre,  
Ministry of Scientific Research and Innovation,  
Yaoundé, Cameroon

<sup>2</sup>Researcher in the department of political and legal studies in the National Education Centre,  
Ministry of Scientific Research and Innovation,  
Yaoundé, Cameroon

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**ABSTRACT:** *Prunus Africana* (P.A.) is an essence of mountainous areas whose bark is sought after in the international market for the treatment of benign prostate hypertrophy. This product is found particularly in the surroundings of Mount Cameroon, where women's groups play a crucial role in the marketing channel of some Non Timber Forest Products (NTFP). However, this specie's exploitation is strictly framed by the standards of the Convention on International Trade in Endangered Species of Wild Flora and Fauna, making it an extremely vulnerable resource that is threatened by the effects of climate change. This contribution has as purpose to question the implication of rural women of the Mount Cameroon region in the value chain of PA, a Non Timber Forest Product that is a resource of important value in the forestry product trade; also, to appreciate the relationship between the resource profitability and inequity in access.

**KEYWORDS:** Rural women, Forest resources management, Policy, Social regulation, Access.

### 1 INTRODUCTION

Gender is a concept that gradually made its entry into the international legal nomenclature, especially in the environmental field. Agenda 21 recognizes the importance of the knowledge and traditional practices of women, and underscores the contribution women have made to biodiversity conservation (section 24.2 (c)). The preamble of the Convention on biological diversity in its 13<sup>th</sup> section states "*the vital role that women play in the conservation and sustainable use of biological diversity and affirming the need for the full participation of women at all levels of policy-making and implementation for biological diversity conservation...*". In view of the full achievement of this objective, the United Nations adopted the Millennium Development Goals that commit States in its third goal "*to promote gender equity and empower women*" at all levels. These texts are adopted in response to the social considerations related to gender which are the economic, political and cultural attributes associated with being a man or a woman. Considering the variability of the social attributes given to men and women depending on national, cultural and temporal space [1](Manfre & Rubin, 2012), gender issues have been for many decades neglected and marginalized in many forest and environmental policies [2](Aguilar et al, 2011). Nevertheless, there is a change of perspective with the advent and spread of the concept of sustainable development; more attention is given to the study of the process of change that the said concept implies. It promotes a better management of resources, an establishment and strengthening of institutions and an orientation of investment for a combination of variables that contribute in promoting the capacity of the present generation to satisfy their needs without compromising the ability of the future generations to meet theirs [3](Bruntland report, 1987). Among the targeted variables, the question of the involvement of women is a constant present topic in forums' discussion. Lorena Aguilar et al. talk about the vital role of gender mainstreaming in forest and environmental policies by stating that "*If we ignore gender, there is no*

doubt that we will fail in our efforts to strengthen forests' contribution to poverty reduction, biodiversity conservation and sustainable development" [4]( Aguilar et al, 2011).The Cameroonian forest is part of the Congo basin, second world reserve of carbon. It covers more than 22 million hectares of forest, about 47 per cent of the national territory. This forest area is full of a wide variety of biological resources, including Non Timber Forest Product. They represent an anthropological and cultural fundamental element for the riparian populations. In Cameroon, as in most of the developing countries featuring a canopy, Non Timber Forest Product which is essentially composed of products other than lumber provides the maintenance of food security. Among these NTFPs, Piper Spp, Gnetum Spp, Cola acuminata, etc. In Cameroon, 82.3% of the rural population is involved in non-formal agriculture, among which 68.6% is made-up of women [5] (Institut National de la Statistique, 2008). The significant presence of women in this field is justified by their pronounced state of pauperization. In most cases, women involved in this sector are isolated in rural communities and are not self-government. These women consider Non Timber Forest Product as a major source of income to meet their basic domestic needs and those of their families. In fact, many households depend on NTFP for their livelihood. They use these products to earn money to meet expenditures for basic necessities. Considering that non-formal activities are not counted among development factors in Cameroon, this study proposes itself to bring out the pertinence of upgrading activities related to the exploitation of Non Timber Forest Products to the formal sector that could thus contribute to the financial empowerment of rural women, who represent the most active population in the value chain. The Non Timber Forest Product exploitation produces the bulk of artisanal material of rural women, representations of their gastronomy, the basics of their mystical-religious belief and components of their traditional pharmacopoeia. According to the International Labour Organization, the non-formal sector refers to a set of units producing goods and services in view of creating jobs and revenues for the main actors. These units are characterized by a low organizational level, they operate at a very low scale, with no distinction between the labour and the asset as production factors; working relations are not built on contracts but on casual human connection. This state of facts contributes in limiting women in their participation in more rewarding activities in the value chain of Non Timber Forest Products, thus maintaining them in a state of vulnerability. In the same line, the economic policy on forest management in Cameroon seems confined to the woody resource (timber), the exploitation of Non Timber Forest Product remains a minor aspect in the forest action plans, as well as gender issues, which by dint of considering as a cross-cutting aspect in the dynamics of natural resources management in Cameroon, remains almost invisible in the implementation of adopted measures.

This article is designed to assess the dynamics of gender in the exploitation and management of Non Timber Forest Products, by studying gender social relations in the exploitation of Prunus Africana in the region of Mount Cameroon. It is precisely to focus on the level of women's involvement in this activity. This study has also as purpose to implicitly highlight the evolution of social representations in the attribution of arduous labour following gender criterion in accordance with social norms by the members of forestry rural communities.

## **2 BACKGROUND OF STUDY: PRUNUS AFRICANA PARTICULAR NON TIMBER FOREST PRODUCT IN THE PARTICULAR GEOGRAPHIC CONTEXT**

Prunus Africana which is an endemic specie of tropical Africa and Madagascar, is found in 22 African countries specifically in East Africa (particularly in Ivory Coast, Sao Tomé, Ethiopia, Kenya, Uganda, South Africa, Madagascar, Congo, Democratic Republic of Congo, and Cameroon). Indeed, Prunus Africana is dominant in the afro-montane type forests where it grows between 900 m and 3000 m above sea level, in volcanic advanced material soils with good drainage. However, it is also found in transitional forests between the lowlands and Highlands and very rarely in the altitudes of less than 600 m. In Cameroon, Prunus Africana is more prevalent in the Southwest and Northwest regions. In these mountainous regions of the country, the plant has been farmed for long. Its economic importance is indicated by Cameroon's annual export of about 7300 tons since 2005, providing annual export revenues of about 1320 million CFA (2,738,027 US\$). It is also one of the major income sources for forest based communities in the Highlands areas of Cameroon [6](Ewusi, 1998). Nearly half of the world's bark supply to date comes from Cameroon. Cameroon is the world's largest exporter of Prunus Africana with 38% of the market share from 1995 to 2004 and 48% since 2004, when Kenya stopped exporting. The main countries importing Cameroonian Prunus Africana since 2000 are France (53%), Spain (31%), Madagascar (11%), India, United States of America, Belgium and China (1percent). At the national level, about 80 percent of herbalists in the Southwest are reported to use Prunus as one of their key medicinal plants, out of a cornucopia of over 177 plants used [7](Nfi et al., 2008).

### **2.1 THE MOUNT CAMEROON REGION**

Mount Cameroon is one of the striking landscapes of central Africa. It is distinguished by its environmental richness and the socio-political dynamics enlivening its management. Mount Cameroon is situated in the South West Region of Cameroon

in Central Africa. Considered as the highest mountain in West and Central Africa with an altitude of 4,095 meters, it expands from the Atlantic Ocean Gulf of Guinea to 20 kilometers inland. At 9.1 degrees east and 4.5 degrees north, Mount Cameroon is still an active volcano. The last eruptions were recorded in 1999 and 2000. Due to its volcanic origin, the surrounding soil is rich in nutrients and provides high fertility for both natural vegetation and farmland. According to the drastic changes in altitude, the natural vegetation is of great diversity and presents a sequence of vegetation forms like mangrove forests and freshwater swamps at sea level, evergreen lowland forests, sub -mountain and mountain forests to mountain and sub alpine grasslands (savannah) above 2000 m. These different habitats host various endangered and endemic species. Mount Cameroon is now a National park.

## **2.2 STUDY VILLAGES: VILLAGES AROUND THE MOUNT CAMEROUN NATIONAL PARK**

The Mount Cameroon as a National Park hosts more than 90% of the exploitable *Prunus Africana*. It opened its doors to the exploitation of this Non Timber Forest Product in 2011. The population around Mount Cameroon is estimated to about 300,000 people of whom 2/3 live in urban and peri-urban areas, while the rest live in villages. Most of the village communities depend directly or indirectly on the mountain resources for their livelihoods. About 32 villages surround Mount Cameroon National Park. This study focuses on the villages where community forests are found as *Woteva* (1,865 hectares), *Etinde* (4,976 hectares), *Bakingili* (905 hectares), and where the exploitation activities have been more effective as *Mapanja*.

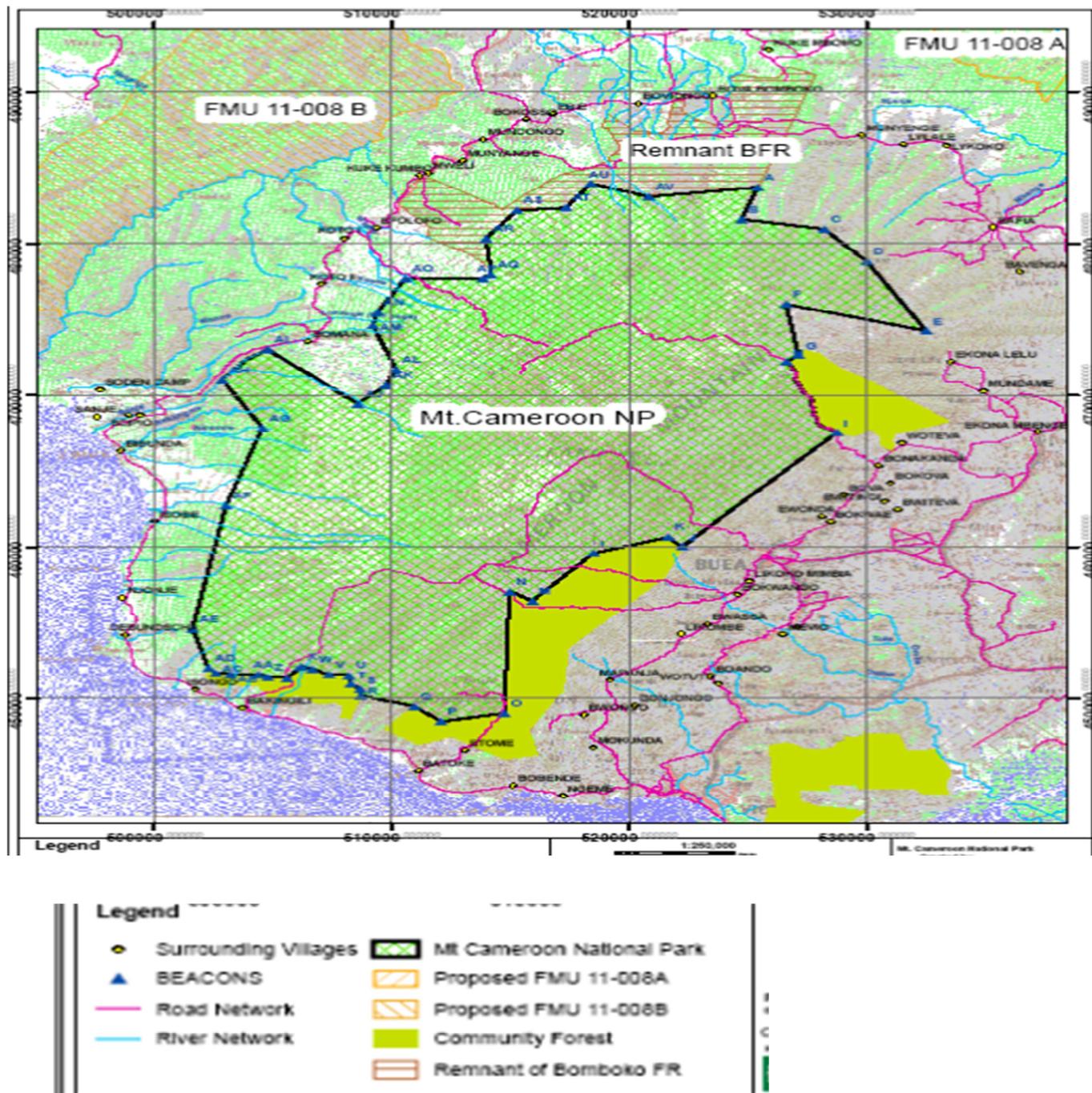


Fig. 1. Map of the study area. FMU= Forest management unity

### 3 MATERIAL AND METHODS

This study is based more on a qualitative than a quantitative approach. Indeed, in order to effectively carry out this study, existing literature on gender and forestry research was reviewed, such as case studies, reports, rules and regulations of forestry resources management dealing with the involvement of women in the exploitation of natural resources. Some information were gotten from the actors in the management of *Prunus Africana* in the South-West Region as Non-Governmental Organizations involved in field activities and the Ministry of Forest and Wild Life. The grounded theory method [8] (Glaser and Strauss, 1965) was used to adjust the interview guide for specific information derived from discussions with the actors in the region of Mount Cameroon. This led to the drafting of an objective report of the situation on the field. To achieve theoretical inference, these data were collected following about twenty sessions of discussions and interviews conducted in *Yaounde*, *Buea* and *Mapanja* in a period of two months. Also, semi-structured interviews were

conducted with 8 women directly involved in the management and exploitation of *Prunus Africana* in the region of Mount Cameroon. Discussion were also conducted with representatives of Convention on International Trade in Endangered Species of Wild Flora and Fauna in Cameroon, State and Council representatives, Traditional leaders involved in the sustainable management of Mount Cameroon and the exploitation of *Prunus Africana*. During a field trip in the village of *Mapanja* where the exploitation of *Prunus Africana* is carried out, data were collected through direct observation and reflectivity demonstration during discussion sessions with resource persons involved in the management of *Prunus Africana* in the Mount Cameroon region.

The theoretical stand adopted in this study focuses on a multidisciplinary analysis. Indeed, sociological and legal approaches were used to assess the role of women in the management and exploitation of *Prunus Africana* in Mount Cameroon Region. The legal approach enabled us to study the systemic and strategic involvement of women in the exploitation of this Non Timber Forest Product. Thus, through the systemic approach, legal texts were appreciated to better measure the scope to the sort. The strategic approach will help in identifying the various actors and the strategies that they use and that interfere with the status of women in the exploitation of this resource. The sociological approach on which this study relies is based on thorough analysis of the situation of women, with an interactionist perspective.

## 4 RESULTS AND DISCUSSION

### 4.1 WOMEN AND FORESTRY IN CAMEROONIAN LAW, FACTS AND SOCIAL PRACTICE IN THE CASE OF PRUNUS AFRICANA

The Cameroonian constitution (January 16<sup>th</sup> 1996) devotes equal access to resources for all citizens without distinction of sex or race. It thus gives an impersonal tone found in most of the Cameroonian laws, without special emphasis on gender. Forest legal reform from the beginning of the 1990s in Cameroon has promoted various forms of integration of local populations in the management of forest resources and revenues derived from forestry exploitation. However, the role and place of women are not explicitly taken into account, neither in forestry policy document nor in Act implementing the legislation. Thus, in the Cameroonian forest law (January 14<sup>th</sup> 1994), although the right of access to the resource of rural communities is instituted, there is no specific provision treating the case of women. Indeed, no statutory or regulatory provision imposes gender fairness within the Community institutions in charge of the management of forest resources or the distribution of profits generated by the exploitation of forest resources. The percentage of women involve in institutions in charge of natural resource management is not formally encouraged.

#### 4.1.1 LEGAL RULES AND REGULATIONS OF THE EXPLOITATION OF PRUNUS AFRICANA IN MOUNT CAMEROON REGION

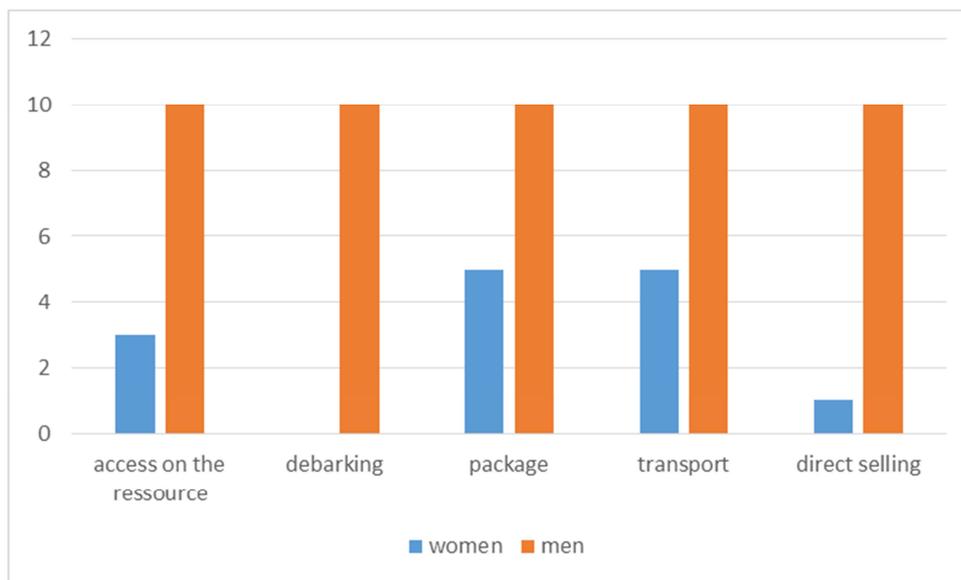
According to Law N° 94/01 of January 20<sup>th</sup> 1994 and its application Text N° 95/531/PM of August 23<sup>rd</sup> 1995 regulating the sector, *Prunus Africana* is classified in the category of “*special product*” whose exploitation is conditioned by several requirements. Among these requirements, there is the prior acquisition of a non-renewable annual exploitation license that indicates the area, quota and specifications of exploitation. In addition, several initiatives were undertaken for a sustainable management of *Prunus Africana*, among which the mainstreaming of ecological studies and Community based approach in the programs dealing with the exploitation of this product [9] (Cunningham et al., 2002). The exploitation of this particular bark is conditioned by the achievement of management plans that integrate the inventories to assess the acceptable exploiting level which should necessarily be materialized by the allocation of quotas through which the State can ensure its sovereign control (Awono et al., 2008). Moreover, people desiring to exploit PA for trade purposes should obtain an allocation of special permits for *Prunus Africana* bark exploitation called *Prunus Allocation Units*. In the region of mount Cameroun, AFRIMED is the main and exclusive trader of the *Prunus Africana* bark, with 200 tons of bark/ year on average. Due to their low education, low socioeconomic levels, little knowledge on owning and managing income generating activities, women are deprived of the benefits offered by the amendment adopted in the Non Timber Forest Products sector. This gives way to the marginalization or very low inclusion of women in the value chain of *Prunus Africana*.

#### 4.1.2 WOMEN’S ATTRIBUTES IN THE EXPLOITATION OF PRUNUS AFRICANA IN MOUNT CAMEROON REGION

To analyse the role of women in the management of natural resources, it is important to appreciate their access and control on resources, and see how they influence the management of the resources through their participation.

The access of women to the exploitation of *Prunus Africana* is still difficult because the labour in its actual form is very tedious. In fact, the current method of harvesting is articulated in several stages: the peeling, package and transport. These tasks are carried out by harvesters recruited in the various surrounding villages, members of the community based organization which itself is essentially compound of male actors. The remuneration of these collectors amounts to 150francs

CFA per kilogram collected. Prunus Africana collectors travel considerable distances to reach the spaces allocated to its exploitation. The collection consists in the debarking of the quarter opposite shaft. The measurement is done during the debarking with a string measuring 95 centimeters in length that roughly corresponds to the circumference of a tree of 30 centimeters in diameter. Debarking is done with machetes from 1.30 meters from the ground to the first branch. Thus, to achieve this operation, collectors climb often on the shaft using a hitch. Packaging is the second step, it consists in gathering and giving faggot bark stripped of foam and impurities. Subsequently, tied packets are carried on the back or the head of the collectors to be transported on long distances.



**Fig. 2. percentage of distribution of tasks in the exploitation of prunus Africana, around mount Cameroon.**

In the region of Mount Cameroon, women involved in the Prunus Africana harvest represent 6% of those active in the field. They are found mainly in the transportation and packaging of the barks collected by their husbands, brothers or sons also involved in the same activity. Several barriers contribute to limit the interest of women in the harvesting of this product in its actual practice in Mount Cameroon. First the arduous nature of this activity; Secondly, the time consuming nature of the harvesting of Prunus Africana; it takes a whole day to collect 20kilograms of bark of Prunus Africana. This then requires the desertion of household and agricultural tasks. Therefore, for women working in the field, the harvest of the bark becomes a temporary activity, to increase their income to invest in other activities. However, to diminish the difficulty due to distance, women organized themselves in groups to invest in the domestication of Prunus Africana in few villages. *Mapanja* for example is one of the villages where Prunus Africana has been domesticated.

**4.2 THE PARTICIPATION OF WOMEN IN THE MANAGEMENT OF THE PRUNUS AFRICANA IN FORESTS COMMUNITIES**

The ability to participate and the modalities of participation are conditioned by a number of factors which follows: social norms, values, assets [10] (Agarwal B, 2001), the political context and the socio-cultural uses. At the legal framework level, regulations provide the representation of all socio-economic categories in community management of forest resources. It is required from community forest management committees to have in their midst a representative of marginalized group without however specifying the number of women. In the three riparian community forests of Mount Cameroon where PA is exploited, there are very few women. There are so far four Community Forests among which three are active: *Woteva Bakingili* with 42 members including 2 women, *Etinde* (no women recorded), *Bimbia* (no women recorded) *Bonadikombo* (no women recorded).The women involved in the management of Prunus Africana operate through the Mount Cameroon Prunus Management Group which is the leading Non-Governmental Organisation that works in the exploitation of this Non Timber Forest Product in the Region of Mount Cameroon. This association brings together 29 villages around Mount Cameroon national park. As a matter of principle, all the autochthons of the villages are involved in the management of revenues from the sale of Prunus Africana barks. Organized in groups, they give their opinion on the projects developed in the community. It is at this level that the participation of women is really influential, because according to Mount Cameroon Prunus Management Group representatives, 70 percent of projects in villages mainly take into account the needs of women mentioned during consultations. Nevertheless, considering the low percentage of women involved in the activity and the

actual literacy men-women ratio which is stated at 0.88 [12](Employment and Growth Strategic Document, 2010), the opinion of these ones are stifled by the imposing number of the literate male actors.

#### 4.3 STRATEGIC MEASURES TO CONSIDER

The analysis of value chain of the *Prunus Africana* collected in the Mount Cameroon Region shows that women do not effectively intervene in the valorisation of this product. How can women's participation and bargaining power in *Prunus Africana* value chain be improved? What kinds of platforms can supply timely market information and feedback to women? These two questions are the key points to boost the involvement of local women in the management of PA and restore fairness in the distribution of the profits from its exploitation. The gender mainstreaming strategy in the mount Cameroon region must start with the sensitization of women and men on the importance of equity in the sharing out of resources, and its impacts on the sustainable management of the *Prunus Africana*. This strategy has to be based on 3 factors: training and capacity building of the women, living the 29 villages members of Mount Cameroon *Prunus* Management Group, on the sustainable harvesting techniques (packaging, processing and regeneration); minimizing the arduous nature of efforts deployed to have access to the collection sites by promoting the domestication of *Prunus Africana* near villages; organizing the market at local level thereby limiting the involvement of intermediates.

Women should be encouraged to participate in training sessions on techniques of sustainable collection of *Prunus Africana*. The rural women's associations involved in the collection of other Non-Timber Forest Product should be invited to these trainings. During these training sessions, men and women have to be sensitized on the importance of women's involvement in this activity. Beyond the collection, this training should extend to methods of regeneration to encourage their actions for the domestication of this rare product near farms. In fact, the current methods of the bark exploitation are destructive, often leading to tree mortality and thus serious erode of the natural population of this specie [11](Tchoundjeu and al, 2002). Most of the villages surrounding Mount Cameroon are located on high lands, which is conducive to the regeneration of the specie. This is particularly the case in the village of *Mapanja* and *Bokwango* where the domestication of *Prunus Africana* is carried out by an association of women in which there are two old harvesters. Plants of *Prunus Africana* from their site of origin have been replanted near farms and villages by these women in order to fit fully in the exploitation the Non Timber Forest Product. This initiative has as benefit the reduction of the hardship of the exploitation in areas which are located at far distances and significant altitudes that renders the activity very tedious. The implementation of these measures will contribute in diminishing the diagnosed disparities between men and women in the value chain of *Prunus Africana*.

A major challenge to the community based organization as Mount Cameroon *Prunus* Management Group is to access *Prunus Africana* barks markets abroad. Most of the barks exported from Cameroon to European markets are exported through long existing chain supply which is not profitable for the local community. In fact, while *Prunus Africana* is purchased from the local communities at 450 Francs cfa per Kilogram ( 0,99 US\$) , it is resold 10 times more expensive to external corporations chartered for exportation. Such distribution of revenues marginalizes collectors who perceive not as much as the amount of effort they put into collecting the product. On the 450 francs cfa perceived by Mount Cameroon *Prunus* Management Group for the sale of one kilogram of *Prunus Africana* bark (Awono, 2010) the collectors earn 150 francs cfa per kilogram, of collected *Prunus Africana*. From the said sale, 50percent are proceeded to fund community development projects in the various villages [12](Tieguhong & Ndoye 2006). The bark collected in the region of Mount Cameroon is still marketed in a raw state, despite the participation of national export companies in the transformation of the bark. This transformation occurs in the coastal and central regions. The transformation initiative of *Prunus Africana* by women in the region of Mount Cameroon can contribute to the insertion a female dynamics in the value chain, increase of revenues for local women and restoration of equity in the management of the resource. For this purpose, regardless the space in which the barks are collected (community forest, national park of Mount Cameroon, domesticated *Prunus Africana*); they could be promoted at the local level by the women of the villages of Mount Cameroon. The acquisition of *Prunus Africana* community spaces can grant possibilities for the transformation of raw bark and communities can directly resell the semi-finished product to international pharmaceutical industries. Similar facilities are not locally found. This implies that a local based organization would stand in vantage position to collect and process bark harvested in the locality.

## 5 CONCLUSION

In general, the initial hypothesis about different practices in link with gender forestry work is that men mostly take part in the activities of big forestry companies, such as the felling of trees, meanwhile NTFPs consumed in households or sold in order to have a little income are mainly carried out by women. This is not the case for *Prunus Africana*, a Non Timber Forest Product which is sought after by international pharmaceutical industries and is flourishing in trade. Women in the region of

Mount Cameroon are particularly active in the exploitation of natural resources such as *Gnetum* and honey, yet the exploitation of *Prunus* is still labelled as a male activity. Thus, it is proved at the end of this study that gender issue is actually not a priority in *Prunus Africana* sustainable management policies. However, the current forestry issue requires the implementation of gender-specific measures to enforce the involvement the women of Mount Cameroon Region in the sustainable management of this resource, whose exploitation is protected at the international level for more efficiency. This initiative is currently in reflection among the actors involved in the management of *Prunus Africana* in the region of Mount Cameroon.

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