

**Adoption of Agroforestry practices in Manyu division, south west Region of Cameroon. A response to socio economic and cultures needs of the people.**

**AUTHOR: ACHU FRIDA NJIEL, PhD**

PROFESSION: RESEARCH OFFICER/ SOCIO-ANTHROPOLOGIST  
ADDRESS: NATIONAL CENTRE FOR EDUCATION  
MINISTRY OF SCIENTIFIC RESEARCH AND INNOVATION  
P. O BOX 1721 YAOUNDE CAMEROON

**CO - AUTHOR: ANGELINE RAYMONDE NGO ESSOUNGA**

PROFESSION: RESEARCH OFFICER / SOCIOLOGIST  
ADDRESS: NATIONAL CENTRE FOR EDUCATION  
MINISTRY OF SCIENTIFIC RESEARCH AND INNOVATION  
P. O BOX 1721 YAOUNDE CAMEROON

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**Abstract:** Manyu division is enrich with vast forest species. Among these forest specie, timber and non-timber species has contributed enormously to the livelihood of the people. With the introduction of cocoa farming during the colonial period, and the domestication of forests' species such as *Irvingiagabonensis*, *I. wombulu* (bush mango) and *(eru) gnetumaffricanum*. by some research centres and institutes, agroforestry has become a rampant activity within the Manyu people. This paper presents the socio economic and cultural impacts of agroforestry in the lives of the population as well as the challenges faced by the farmers.

Data was collected in 11 randomly selected villages of the Manyu division using both qualitative and quantitative methods with the help of questionnaire, interviews and focus group discussions.

Results of the study indicate that agroforestry is an income generating activity in Manyu which has increased the earnings of farmers, contribute to environmental protection and help the population to maintain their culture. However, the Manyu people still face some challenges at the level of adoption of agroforestry practices. To ensure rise in the adoption of agroforestry practices, the government, non-governmental organization should provide an enabling environment with more education and improved in infrastructural network.

**Keywords:** Agroforestry, Adoption, socio economic, NGOs, cultural development.

## INTRODUCTION

In respect to the view of emerging international commitments to discourse rural poverty, commercialization and adoption of agroforestry practice is known as having the potential to achieve dual conservation and development objectives. This has led to increasing value of forest resources to local communities for poverty alleviation through livelihood development (Pandey *et al.*, 2016).

Forests cover 30 % of the Earth's surface and provide food and nutrition, security and shelter, combat climate change, harbour biodiversity and are home to numerous indigenous population groups (ICSU and ISSC, 2015). According to the World Bank, approximately 90 percent of the poorest people rely on forests for subsistence and income (Kaimowitz, 2007). About 75 % of poor people of the world living in rural areas depend on indigenous Forest Products for their subsistence while 80 % of developing countries use these products daily. In Central Africa, 65 million people live in or around rain forests and depend on natural resources for their feeding (Aubé, 1996; Elise *et al.*, 2008). About 38% of vegetal of NTFPs are use as food and annual economic value estimated at 32 billion CFAF, US \$ 64.7 million. Their value added is estimated at CFAF 6.4 million, which is US % 13million presenting 0.2 % of GDP with at least 283,000 involved. (Awono *et al* 2016).

Due to depletions caused by human activities like logging, deforestations, most forests are no longer sustainable to the affected communities. To replenish lost forestry resources, it has become of great necessity to domesticate NTFPs so that the resources which were formerly obtained from the forest could be made available to consumers

(Cerutti, 2009; de Wasseige *et al.*, 2009). This will ensure that the natural resources will not be abusively exploited thereby endangering the survival of the ecosystem (Elise *et al.*, 2008).

Agroforestry has evolved over time but increased international consensus has underlined the components as well as the practices that characterize agroforestry. These aspects can be inclined to specifically defined areas or locations depending on those existing within such localities. Agroforestry has also been defined by Alao and Shuaibu (2013) as a dynamic ecologically based natural resources management system through integration of trees on farms that sustains production for increased social, economic and environmental benefits for land users at all levels. Agroforestry has therefore been recognized as one of the strategies to introduce indigenous and exotic trees into cropping systems and impact on livelihoods of small-holder farmers in Sub-Saharan Africa (Kwesiga F., *et al* 2003). By and large the consensus is on integration of indigenous trees and crop and/or animals in managing forest and agricultural resources. Agroforestry as an art and science had been practiced traditionally in Cameroon and to make it effective and sustainable, there is need for integration of improved knowledge into the country's farming systems through extension education (Koto, 2006).

Cameroon has extremely diverse ecosystems and is signatory to several international environmental conventions, including the Convention on Biological Diversity. The country's biodiversity and biological resources have been subjected to considerable pressure by both legal and illegal forest exploitation (ADB, 2009). An estimated 35 % of overall log production in Cameroon in 2013 was illegal (Hoare, 2015). About 27.5 % of forest is degraded yearly in the country (ADB, 2009). Its annual deforestation rate of 0.9 % is among the highest in Africa. Continuously decreasing available arable land area per inhabitant leads to more deforestation (ADB, 2009). Despite the increase in number of protected areas in Cameroon to preserve biodiversity, environmental degradation continues to increase as well because a high proportion of the population is dependent on fuel wood for energy (IMF, 2010), and more forest continues to be allocated as logging concessions.

Manyu division is located in a tropical rainforest area with a forest cover of over 90 %. Land use change is visible and principally represented by settlements and agricultural land. Forestry companies also carry out selective logging of tropical wood without any information on trees of economic importance to the indigenous population (Ayuk, 2002). As such, forest cover change is highly perceptible around major settlements like Mamfe, Bachuntai, Osing, Bessonabang and others, where the Bayang and Ejagham population are settled. Areas around settlements have been highly deforested to create cultivable land. Besides food crop production, farming in the area is largely dominated by agroforestry, with cocoa (*Theobroma cacao*) being a major cash crop. The most important is the inherent agroforestry knowledge and practices implemented by the people during farm creation as farmers do not cut down NTFP species when expanding farmlands into the deep evergreen forests. With the growing demand for NTFPs as a result of population increase and the economic value attached to them. Some NTFPs on which rural livelihood depends have been threatened due to diverse human activities. Most NTFPs are found in the wild with no restriction to harvest on state and community lands with the rule of first come first served applied. Also, poor management techniques (destructive harvesting) are used during collection. According to Setty *et al.*, (2008) this might lead to unsustainable harvesting, lost of biodiversity, and vulnerability within rural communities. To face these challenges, efforts have been made through the domestication of these forest species. These new species provide significant benefits to people (Awono *et al*, 2016; Ingram, 2012).

One important component of this approach is the domestication of food and pharmaceutical that have commercial potential in local, regional or even international markets. In Cameroon, about 500 plants and approximately 82 animal species are used as NTFPs, the majority of which have multiple uses with foods and oil dominating (67%) followed by medicinal products (De Wasseige *et al* 2012). Indigenous forest trees are retained on farms for obvious reasons that range from ecological, economic and even because of their socio-cultural significance to the people (Ajake and Anim, 2012). There is growing resource scarcity with population growth and challenges of domesticating Non Forest Timber Products (NFTPs) in the Manyu Division. With this situation, agroforestry was introduced in rural settings to take up the challenges.

Agroforestry should be considered as a generic term which embraces the following specific components: agri-silviculture, silvo-pastoral systems, agro-silvo-pastoral systems and multipurpose forest tree production systems (FAO, 2015). Agroforestry designates land management techniques, which implies the combination of forest trees with crops, or with domestic animals or both (Combe, 1982).

In this study, agroforestry is considered as the integration of NTFPs on farm land and the level of adoption by the people of Manyu. The latter species include among others “*njangsa*” (*Ricinodendron heudelotii*), “bush mango”

(*Irvingiagabonensis/I. wombulu*), “eru” *gnetumaffricanum*. It is centred on species-rich, low-input agricultural techniques including a diverse array of new indigenous tree crops, rather than on high-input monocultures with only a small set of staple food crops (Leakey, 2001a, 2001b). This paradigm of development is therefore explored in the study area and tacks local indigenous strategies and perceptions inherent to the Manyu people on Agroforestry. The role it plays in rural landscape change, increasing food provision potentials and above all its contribution to rural poverty reduction. It also involves the retention of ‘forest orphans’ or scattered NTFPs during farm creation to tree domestication, including the environmental and socio-economic benefits which abound (Schreckenberger *et al.*, 2006). They are more likely to be portrayed in the value chains that develop mainstreaming agroforestry products and more importantly, the derived impacts on poverty alleviation and livelihood improvement. Not only do environmental benefits like improved soil fertility enhance harvest/output of staple food crops, but the available agroforestry products are a source of revenue diversification. This reduces the reliance on staples like cassava, yams and cocoyams which are cultivated in the areas where agroforestry is practiced (Daniel *et al.*, 2013). It provides a better way to achieve target agricultural objectives for improved rural development.

Agroforestry systems, if well managed can provide the much-needed food to resource poor communities and also enhance livelihood while preserving the ecosystem as some of the trees control erosion and other forms of land degradation (Bongers, 2010). The adoption of agroforestry has been constrained partly because it lacked a natural 'home' in the policy space. However, this trend is changing due to a growing body of evidence of its benefits, and alleviation adverse environmental effects at the local and global levels.

This research aims at providing data on Agroforestry in Manyu by;

- Examining the different agroforestry systems adopted by farmers in Manyu,
- Analysing the level of adoption and contribution of agroforestry in this community.

## METHODOLOGY

The study uses both qualitative and quantitative methods with direct observation, interviews, questionnaires and focus group discussions as our main data collection techniques.

Mixed methods in this research led to better understanding and analysis of the data. This involved primary fieldwork through field visits to the study area. A visit was made to the senior divisional officer and the chiefs to introduce the subject matter. Interviews were carried out with some farmers practicing agroforestry in the division.

### Sampling techniques

Prior to the interviews, the objective of the study was explained and discussed with the informants in order to obtain their cooperation. Furthermore, in each of the selected villages, community leaders who are familiar with the area were used as facilitators for data collection. The village councils identified a community member who was to accompany the researcher to collect NTFPs and others domesticating these species. The community members were able to identify other villagers who had been involved in agroforestry cultivation of major indigenous forest species, through snowball sampling. The field work was carried out by the researcher to enable her get first-hand information from the informants.

Eleven villages were studied out of 238 villages in Manyu division. The eleven villages were randomly selected because Agroforestry is highly practiced in all the villages in Manyu. These villages had similar features which made it easy to randomly select a few as representative of the study area. This includes the number of villages that were selected per sub division for the study. The table below includes the number of villages that were selected per sub division for the study.

Table 1: Villages selected from study site

Sub-division	Villages visited
Akwaya	Akwaya
	Bayangbu
Eyumojock	Eyumojock
	Nchang
	Egwekaw
Mamfe	Mamfe
	Bessongabang
	Ossing
	Okoyong
Upper Bayang	Bachuo
	Bachuoakabe

These interviews gave us an insight of knowledge of agroforestry systems in Manyu and the challenges faced. Interviews were granted to some key informants to get an in-depth interview on Agroforestry and development.

Data collected was analyzed using content analysis. Content analysis was performed on primary data gathered with field interviews. View points from the interviews were condensed and coded into themes. Microsoft Office Excel and SPSS were equally used. Descriptive statistics were performed on the data. Statistics were used to display results and trend analysis was done to show the contribution of agroforestry to development in Manyu. Some indigenous forest species were identified including their uses and cultural significance, economic and environmental development in the study area.

## RESULTS AND DISCUSSION

### I..Agroforestry Systems in Manyu

Manyu division is endowed with different kind of agroforestry systems which are silvo-pastoral, agri-silvicultural, agro- silvo –pastoral, mixed garden and multi-use production systems. The most commonly practiced is agri-silvicultural systems, which manages land for the production of agricultural crops and forest products. Second in the list is agri-silvo-pastoral systems, a mixture of the two systems above, which produces tree products, crops, and livestock.

Some members in the community keep animals like local breed chicken, pigs, rabbit, goat etc. Even though, these animals serve as source of income and food whereas the droppings of these animals are used for fertilizers on the farms to improve yields.

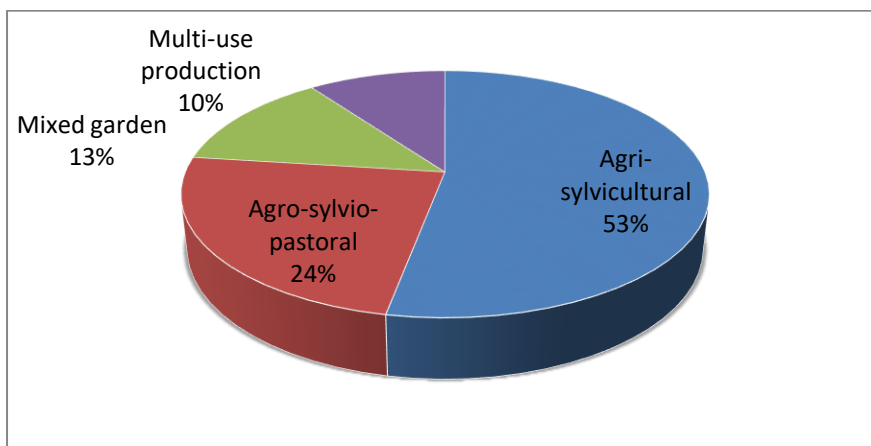


Figure 1: Agroforestry systems in Manyu

The most domesticated indigenous forest species found in the farms are *Irvingiagabonensis* and *I. wombulu* (bush Mango), *Ricinodendronbeudolotii* “Njansa”, *Gnetumaffricanum* “eru”, *Afrostryraxkamerunense* “Bush onion”. *Irvingiagabonensis*/*I. wombulu* “Bush Mango”.

**II. Population growth and tree domestication**

According to respondents, NTFPs which were formerly collected from the wild are getting more and more scarce to find as villagers have to increasingly trek far off to collect these products. Population growth with increasing number of people consuming the products renders it difficult to continue harvesting the same resources in the same manner due to the difficulties involved. This was confirmed by one of the informants who said paAshu of Ossing village;

*“It is true that bush mango is available for everybody in the community but again before you could get hold of enough harvest for sales you need to trek for very long hours in the forest. This is because most of the trees around our neighbourhood had been destroyed and used as material for the construction of houses.”*

As a response to these problems, most communities in Manyu have resorted to domestication of trees and diversification of agricultural production. Respondents revealed that diversification of agriculture through agroforestry practices have increased revenue sources among people in most communities. Another informant Pa Ebai from the study holds that;

*“Domestication of bush mango has actually helped to increase our income. We no more need to trek for very long hour’s in search of these fruits”.*

It is expected that increased domestication of forest plants into farmland could be a veritable avenue for poverty reduction if these communities are provided with incentive packages to encourage agroforestry practices. However, despite the perceived advantages of diversification, tree domestication is still limited to certain species of indigenous plants which are increasingly being integrated into the farming practices.

It was observed that farmers mostly integrated *Irvingiagabonensis* “bush mango”, *Irvingianwombulu* (dry season bush mango) and *Ricinodendronbeudelotii* “njansa” into their farms. This is as a result of their high economic values, high demand in the local market, financial remunerations, availability of seeds, early maturity of about four to five years for stock from improved planting material and the fact that these trees provide shelter and serve as wind breaks in farms. In line with the findings of this study (Asare 2005). Fondoun *et al.*, 1999) observes that *R. beudelotii* is also found in bush fallows, cocoa (*Theobroma cacao*) plantations, home gardens and crop fields where it is used as a soil fertility improving species. This means the species is an incipient domesticate with great potential for further utilisation.

The relative engagement of farmers in tree domestication in the study area is indicated in figure 2.

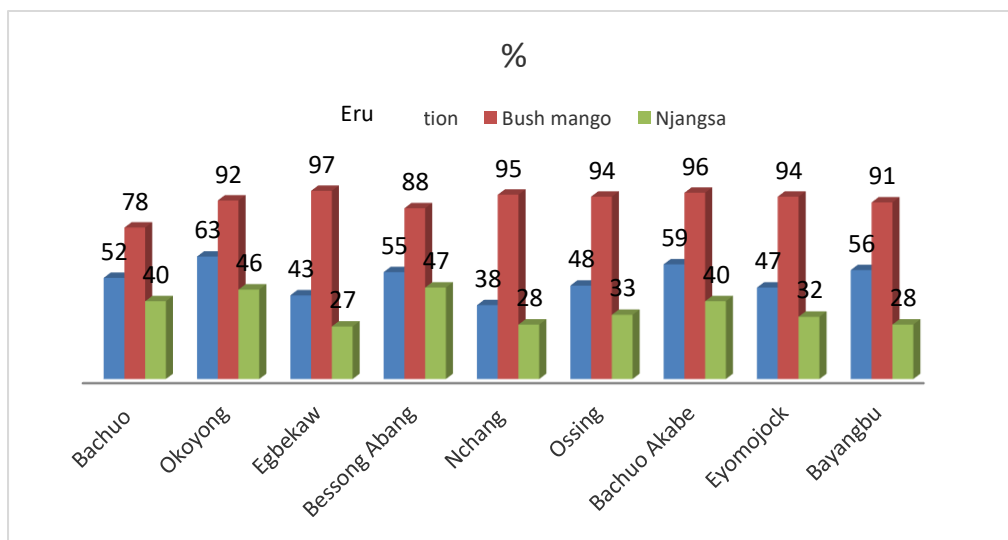


Figure2: Percentage of farmers engaged in tree domestication in various villages of Manyu

Globally, the proportion of respondents hardly went beyond 50% for those already engaged in NTFPs domestication. It is worthy to note that Manyu is located in the forest region with cocoa production being a well-established agroforestry practice. NTFPs are domesticated by integration into cocoa farms. The proportion of respondents involved in domestication were as follows: Bachuo (52 %), Okoyong (63 %), Egbekaw (43 %), BessongAbang (55 %), Nchang(38 %), Ossing (48 %), BachuoAkabe (59 %), Eyomojock (47 %) and Bayangbu (56 %). Field observation revealed that a significant proportion (53 %) of respondents is already engaged in domestication of *Irvingiagabonensis* (bush mango), *Irvingiavombulu* (dry season bush mango) and *Ricinodendronheudelotii* (Njansa). Many studies (Ndoyeet al., 1997; Nkwatoh, 1998; Clark and Sunderland, 2004; Tchoundjeuet al., 2007; Ewaneet al., 2009; Awonoet al., 2016) have ranked *Irvingiaspp.* first among other NTFPs in terms of their economic and social value in the lowland humid forest zone of Cameroon. Amongst those practicing domestication, a dominant portion (90 %) (Figure 16) is involved in “bush mango” cultivation; Okoyong (92 %), Egbekaw (97 %), BessongAbang (88 %), Nchang (95 %), Ossing (94 %), BachuoAkabe (96 %). The cultivation of *Ricinodendronheudelotii* (Njansa) is still moderate but is growing in importance as it is prospectively being integrated into crop farms witnessing significant growth rates in some localities as revealed by informants and institutions. PaAshu of Okoyong villages said that:

*“the domestication of njansa is not easy and most especially the processing procedure is very difficult. Cracking the seeds to get the nuts is very tedious. Also for the njansa nuts to crack well, we need to laugh and smile when the nuts are being boiled. If not the sheft of the njansa will not peel well”.*

A little more than 30 % of respondents is already into its domestication and cultivation. This is represented in the field as follows; Bachuo (40 %) Okoyong (46 %), Egbekaw (27 %), BessongAbang (47 %), Nchang (28 %), Ossing (33 %), BachuoAkabe (41 %). However, these agroforestry practices vary according to household farm sizes. A farmer in Okoyong village recognized having 33 *Irvingiagabonensis* (bush mango) and *Irvingiavombulu* (dry season bush mango) trees in a hectare of land cultivated with cocoa. It should be noted that agroforestry practice in the region involves leaving some trees during farm creation, especially those that provide shade and particularly non-timber forest products. This confirms with the findings of (Ayuket al., 1999) observation that most farmers maintain producing trees of *Irvingiagabonensis* that are already growing on their land and also transplant wildlings onto their farms or produce seedlings from seeds for planting. This system thus embeds cocoa as the main cash crop and at times with a mix of plantain, some fruit trees like plums and oranges. The almond of *Irvingiaspp.* is also considered a special forestry product by the Ministry of Forestry and Wildlife in Cameroon which uses a quota system to grant exploitation permits for the resource (Ingram and Schure, 2010).

It was revealed that actions and efforts of farmers in the field are complemented and promoted by the Ministry of Forestry and Wildlife (MINFOF) which controls interaction with the forest community. It sensitizes logging companies and follows up their actions in forest management plans and to respect forestry norms in conservation of these important indigenous tree species. The most prominent logging companies in the area are CEFECAM, CAFECO and SIENCAM. According to respondents, these logging companies destroyed most of the forest plants prior to the intervention of (MINFOF). However, the latter species are presently being integrated into farming systems to avoid risk of extinction and subsequent of social, economic, and cultural repercussions. It is for these reasons that MINFOF has imposed regulations that logging companies establish tree nurseries that are being distributed to local communities notably, *Irvingiagabonensis* (rainy season bush mango), *Irvingiavombulu* (dry season bush mango) and *Ricinodendronheudelotii* “Njansa”.

This is done in line with the regeneration of precious, highly exploited forest trees. It was revealed that during the celebration of the World Environment day on the 5<sup>th</sup> of June, CAFECO donates tree seedlings to schools to protect tree species, and to households to facilitate diversification and agroforestry systems in agriculture.

To educate farmers and increase their awareness levels on domestication and integration, there exists Radio sensitization programs like “environmental watch” and “save our environment” which are presented by Manyu Community Radio and Voice of Manyu weekly. Program contents are mainly on the importance of tree planting to both humans and the environment. Given the long time (averagely 5 to 10 years) that it takes for “bush mango” and “njansa” to mature, improved planting materials of these tree species have been introduced through grafting which reduces the maturity age to less than five years. This is a major innovation which is progressively being diffused to farming communities in the study zone and serves as a major breakthrough to farmers in Manyu. The overall development objective is to promote wide-scale adoption of domesticated species as valuable tree crops in farming systems, particularly in those areas where it remains unexploited.

### III. Diversification in Farm technique and engagement in groups for improvement

Diversification in farm techniques and crop species to achieve expected and desired results of increase in output and household incomes has resulted to changes in farming approach from individual to collective operations. This has encouraged farmers to engage into farmer groupings or Common Initiative Groups (CIG) aimed at maximizing the use of resources. These farmer groups have been able to attract resources and support from other organs which provide technical, material, financial and know-how assistance within the framework. This is more beneficial to groups than individuals. These organs that act as principal diversification agents encourage this approach to farming. The aim is to increase the scale of operation, exchange of experiences and ideas, diversify the activity base and ensure productive performance. Most of these CIGs have grouped themselves to form Cooperative societies like FREEPROM in Mamfe which is an integration strategy aimed at improving marketing opportunities for agroforestry products in the study area. Its head office is referred to as the 'Bush mango market'. According to FREEPROM cooperative, about 84 farmer groups operating as Common Initiative Groups CIGs are spread into three market areas.

Groups are registered in accordance with Law N<sup>o</sup> 92/006 of 14 August 1992 authorizing the creation and functioning of cooperatives and common initiative groups. The law was promulgated by presidential decree N<sup>o</sup> 92/455/PM of 23 November 1992 laying down the procedure for implementing the law. These groups operate in the area of agroforestry in the region and function in a mutually complementing manner.

However, some farmers operate in groups not officially recognized and registered as CIGs. For this reasons they cannot attract support from any organization since they require the fulfilment of administrative procedures for any aid to be offered them.

The age or period of formation of most of these officially registered groups demonstrate how recent the idea of operating in groups has been introduced. The number of existing groups equally demonstrates how desperate farmers in the region have been seeking new approaches of operation in order to effect an increase in their farm productivity at lower costs. It was realized that of the existing CIGs operating under the banner of NTFPs, about 95 % are less than ten years old and close to 70 % to 80 % of these groups are dominated by women. They these women CIGs were created for selling agroforestry products at secured prices, sharing knowledge and new development techniques for acquiring added value for their products.

Both farmers and cooperative organizations revealed that an integrated approach to farm operations has become an important avenue for improving marketing and skills within the farming landscape of the region. Farmers at different scales and levels of integration opt for and apply the integrated approach in an increasing manner. The integrated approach depends on seedling availability, grafted plants or other improved planting material interspersed with cocoa in tree crop plantations or farms. It is noted that in Manyu, farms are integrated with cocoa, orange trees, plum trees and more recently, these farms are integrating *Irvingiagabonensis* (rainy season bush mango), *Irvingianwombulu* (dry season bush mango) and *Ricinodendronbendelotii* (Njansa).

The study reveals a gender occupation relationship in the diversification with the male folk involved in cultivating for commercial purposes based on traditional norms. Diversification in purpose of cultivation reveals varying tendencies with respect to gender. The male folk dominantcultivation for commercial purposes. This is simply in respect of traditional prescriptions that have made man to generally be considered as the natural household head and breadwinner. Thus, he is the economic force of the family and must, therefore sell his farm products. This enables him to raise the needed income capable of reassuring and ascertaining his leadership position and control over the household. This, however, is made possible by the supportive role of the woman who cultivates a greater portion of her crops for consumption and with limited quantities for sale. The findings of this study are in line with those of Kegniel *al.* (2011) who observed that children and women in Nigeria harvest *I. gabonensis* fruits in compound farms near their villages, whereas men go deep into the forest to collect fruits, extracting the seed on site to reduce the load they have to transport to their villages.

Table 2: Distribution of respondents according to the main reasons for crop production.

	Home consumption		Sale		Total	
	Frequency	%	Frequency	%	Frequency	%
Male	41	25.00	126	79.00	164	51.00
Female	141	74.00	42	26.00	160	49.00
<b>Total</b>	<b>182</b>		<b>168</b>		<b>324</b>	<b>100.00</b>

Table 2 shows the distributions of respondents according to the main crops cultivated and reason for cultivation. It was revealed that 79 and 26 % of men and women respectively produce crops for market purpose. This proportional difference for women shows their role in target household consumptions before markets. In fact, over 88 % of females as against 25% of men cultivate essentially for household consumption, giving a proportional difference in purpose of cultivation of 63 %. The difference in the proportion of farmers cultivating for the market between the sexes was observed in types of crops cultivated. It was observed that men are mostly involved in cash oriented cultivation especially, cocoa and the type of labour employed respected gender occupation relationship. Women are mostly involved in harvesting stage of production. Ewane *et al.* (2009) and Tajoacha (2008) also observed that *Irvingia* harvesting is mostly a family affair, with children and women commonly involved in harvest and transformation in the South West region of Cameroon. Thus, market orientation in crop production involves several opportunities for crops traditionally associated to men and which currently command a high market force due to their high demand. It is the situation of agroforestry tree crops notably *Irvingia gabonensis* (rainy season bush mango), *Irvingia wombulu* (dry season bush mango) and *Riciodendron boudolotii* (Njansa). These products command high market demand. They are mostly planted by men who own land and whose target is the market, so as to cover the cost of acquiring and catering for them till maturity.

IV. Challenges of adoption in agroforestry practices

Agroforestry though beneficial in Manyu divisions have been plagued with a number of challenges. The challenges identified in the study area include the lack of capital which was acknowledged by 91.4% of the respondents, while 84.6% of the respondents acknowledged by lack of technical skills, 63.5% acknowledged lack of quality seeds, 54.6% complained of market inaccessibility due to poor road infrastructure while 84.8% acknowledged poor storage of harvested seeds. Figure 3 represents the distribution of the various types of challenges acknowledged by respondents in the study area.

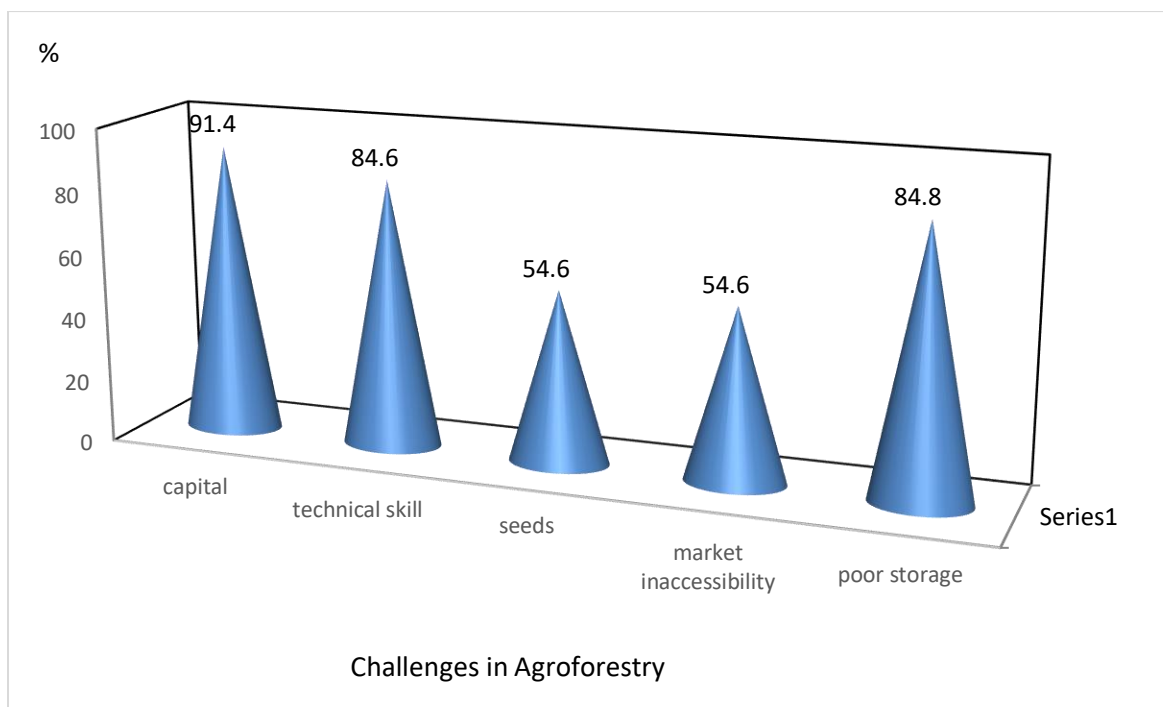


Figure3: Distribution of respondents according to challenges in Agroforestry



When the various challenges were examined, it was realized all the challenges facing Agroforestry farmers in the study area were significant based on the proportion of distribution of the challenges per respondents. According to the respondents Agroforestry cannot contribute significantly to poverty alleviation if the challenges are not taken to consideration in the country policy and strategies. These challenges were also acknowledged in studies by Bugayong (2003) which recommended that for Agroforestry to be more sustainable, there is an urgent need for governments and other stakeholders in the Agroforestry sector to overcome the numerous challenges in the sector. The study recommended granting of subsidies to farmer, the availability of species for domestication, establishment of tree nursery in all the villages practicing Agroforestry, availability of training centres and demonstration farms in the study areas, and increasing market accessibility by construction of farm to market roads in the area under study.

### CONCLUSION

The Manyu people have been involved in agroforestry practices for decades through various systems: agri-sylviculture, agro sylvio pastoral activities, mixed garden and multi-use production. These agroforestry practices have a high cultural value. The forest species mostly domesticated arenon-timber forests products which are part of the cultural system of these people and their neighbours. *Irvingiagabonensis* (bush mango) and *Irvingiawombulu* (dry season bush mango), *Ricinodendronheudelotii* (Njansa), *Gnetumaffricanum*“eru”, *Afrostryaxkamerunense*“Bush onion” which are part of the meals and rites of the people. With agroforestry, cultural changes are maintained with the availability of products in the locality. Furthermore, agroforestry practices have been able to improve the standard livings of the population, contribute in the protection of environment and integrate the farmers in a larger market. In Manyu nowadays, agroforestry farmers are amongst the richest people living in the rural areas. They have comfortable houses, are able to sponsor the education of their children and relatives, benefit of access to health facilities, and experienced food self-sufficiency in their households. It is therefore a system which helps in the protection of the environment that does not have negative impacts on the local populations. Unlike to other environmental measures such as the creation of protected areas that have many negative social, economic and cultural impacts on the communities, agroforestry appear as an environment protection measure which also protects the communities. With agroforestry, there is no major conflict between environment requirements and socio-cultural development.

This activity with major positive impacts is carried out through difficulties. Agroforestry farmers face many challenges such as: limited access to loans that can increase the capital, limited access to seeds and improved seeds, poor conditions of storage, and lack of technical assistance. All these challenges can be overcome with a better technical assistance to farmers. In fact, even though there are some organizations (NGOs), associations and government institutions specialized in agriculture in general and agroforestry in particular implemented within the Manyu division, the assistance given to farmers does not meet with their needs. The farmers are still practicing a type of premodernized agroforestry and are working without a substantial support from the national and international community as other rural communities in the country whose are integrated in sub regional project of technical assistance to agroforestry. The marginalization of this locality can probably be reliable to the fact that the population practice an agroforestry of high cultural value which is not promoted comparatively to agroforestry practice of high economic values. Funds are mostly directed to agroforestry projects oriented in the direction of timber forest products which are financially sustainable for timber exploitation. From this research, we recommend more attention to be given to agroforestry of high cultural value for economic and socio-cultural development of rural local communities.

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