

Market Forces and Decentralization Reforms: Effects on Non-Wood Forest Product Management Systems in Cameroon

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ABSTRACT: In Cameroon, some resources such as non-wood forest products (NWFPs) are normally managed as common pool resources in traditional systems. However, over the past 20 years the growing domestic and international market for NWFPs and a policy of decentralization in forest management have influenced these systems. This research explored the effect of the growing market and the new decentralized management system, particularly Community Forests, on the customary management system, and whether the NWFPs are being sustainably managed. Findings show that the customary NWFP management system is changing in response to the growing market, through increasing privatization of access for some products, but is not adapting quickly enough to prevent degradation of some species. Although NWFPs are not yet being actively managed within Community Forests, these new decentralization reforms have had an effect on the rules of access for outsiders in Community Forest areas.

KEY WORDS: Cameroon, non-wood forest products, markets, community forests, decentralization, customary tenure

INTRODUCTION

Africa has experienced many changes over the course of its history that have influenced the institutional arrangements developed to sustainably manage natural resources. Initially these changes occurred over many centuries as people migrated across the continent gradually influencing each others' culturally-based systems (Vansina 1990; Oyono 2003). The most dramatic influence on this evolution of natural resource management systems, however, came with the European colonization of Africa. When African countries gained their independence they often continued the same centralized systems introduced by the colonizers (Delville 2000; Nemarundwe 2004). These natural resource management systems continue to be influenced by current global and domestic factors.

Although under the central management of the state, in Africa practical access to and management of natural resources normally falls under the scope of the traditional land tenure system (Toulmin and Quan 2000; Delville 2000). Therefore, although local

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communities do not have *de jure* rights they may exert *de facto* rights of ownership, use and access to natural resources. These communal tenure systems or mixed tenure regimes comprise individual, family, sub-group and larger group rights and duties in relation to a variety of natural resources. The precise definition and articulation of these vary between ecosystems, areas, cultures, countries and regions, and can evolve quite rapidly in response to social and economic change (Cousins 2000).

While the role of the nation state remains strong, in recent years there has been a policy shift globally with a move from central control of natural resources towards decentralization. Decentralization is a general term which refers to any act of a central government to formally cede power to actors and institutions at lower levels in a political-administrative and territorial hierarchy (Ribot 2002a). In Cameroon, by the end of the 1980's, the government began to recognize the limitations of its existing forest law, which led to the passing of the Forest Act of 1994. This change in legislation was a reflection of the recognition of the importance of forest activities in Cameroon's economy, the role of forest products in people's livelihoods and incomes, and the broader international context of policy formation (Ekoko 2000). One aspect of the legislation transferred management responsibilities and powers to village communities for the creation of Community Forests (Djeumo 2001).

A Community Forest is defined as a forest in the non-permanent domain that is subjected to a management agreement between a village community and the administration in charge of forests. It is equipped with a simple plan for its management, conservation and exploitation for the interests of the communities with the technical support of the forestry administration (Oyono 2004b; Vabi et al. 2000).³ All products, wood, non-wood, wildlife, fishery resources and special products, with the exception of those forbidden by law, are deemed the property of the community concerned. Initially, most Community Forests in Cameroon were primarily focused on harvesting timber. However, the drafting of the new *Manual of the Procedures for the Acquisition and Norms for the Management of Community Forests* in late 2002 has placed more emphasis on the exploitation of non-wood forest products (NWFPs).⁴ The draft of the new Manual also opens the possibility for new management arrangements for such resources within the current structure of Community Forests (Community Forest Unit 2002). The more prominent integration of the collective management of NWFPs in Community Forests represents a change from the prevailing customary system, which operates through a complex system of informal rules and norms at the household, corporate lineage and village levels (Diaw 1997; 1998).

Another factor influencing the sustainable management of NWFPs is their increasing commercial value. Research has shown that in the last 20 years in Cameroon, NWFPs have gone from their primary value for subsistence use, to being sold on an expanding domestic and international market leading to concerns about over

³ The 1994 law classifies forests in Cameroon into two main categories: the permanent forest estate or classified forest which can only be used for forestry or as wildlife habitat and the non-permanent forest estate consisting of forested land which can be converted to non-forest uses (Djeumo 2001).

⁴ NWFPs, according to the Food and Agriculture Organization of the United Nations, consist of goods of biological origin other than wood, derived from forests, other wooded land and trees outside forests (Belcher 2003).

harvesting (Brown and Lapuyade 2001a; Ndoye, Ruiz Pérez, and Eyebe 1999). This increase in commercial value led to the reorganization of the Ministry of Environment and Forests (MINEF) in 1998, with the creation of a Department for the Promotion and Transformation of Forest Products with a sub-department to take charge of the Promotion and Transformation of NWFPs (Ngwasiri, Djeukam, and Vabi 2002; Ndam and Tonye Marcelin 2004). Common theory says that normally increased commercialization has a negative effect on a natural resource leading to degradation (Agrawal and Yadama 1997; Crook and Clapp 2002). However, the level of degradation can be mitigated sometimes by the extent of a communities' dependence on NWFPs, their ecological knowledge and the organization of the markets (Uma Shaanker et al. 2004).

According to Gibson, McKean and Ostrom (2000) market, technological, demographic or political factors that affect individuals are normally filtered first by local institutions. Additionally, state mandated changes, such as decentralization reforms, which affect customary systems may have their most adverse effect on access to those resources, like NWFPs, held in commons by a community (Cousins 2000). Since local institutions play the predominant role in guiding the daily consumption of natural resources, it is appropriate to investigate how they are responding to these forces. The changing situation of a growing market for NWFPs, as well as the renewed emphasis on their exploitation and management within Community Forests in Cameroon, provides a ready opportunity for investigating the effects of these external forces on the customary management systems for NWFPs.

This research examines how the community level NWFP management arrangements are responding to increased commercialization and the advent of Community Forests. First of all it examines whether NWFPs are continuing to be sustainably managed given the market pressure. It then assesses the influence that the presence of Community Forests has had on rules of access to and management of these resources. We conclude with a discussion of the viability of Community Forests as an alternative institutional arrangement for sustainable management of NWFPs in forest communities.

METHODOLOGY

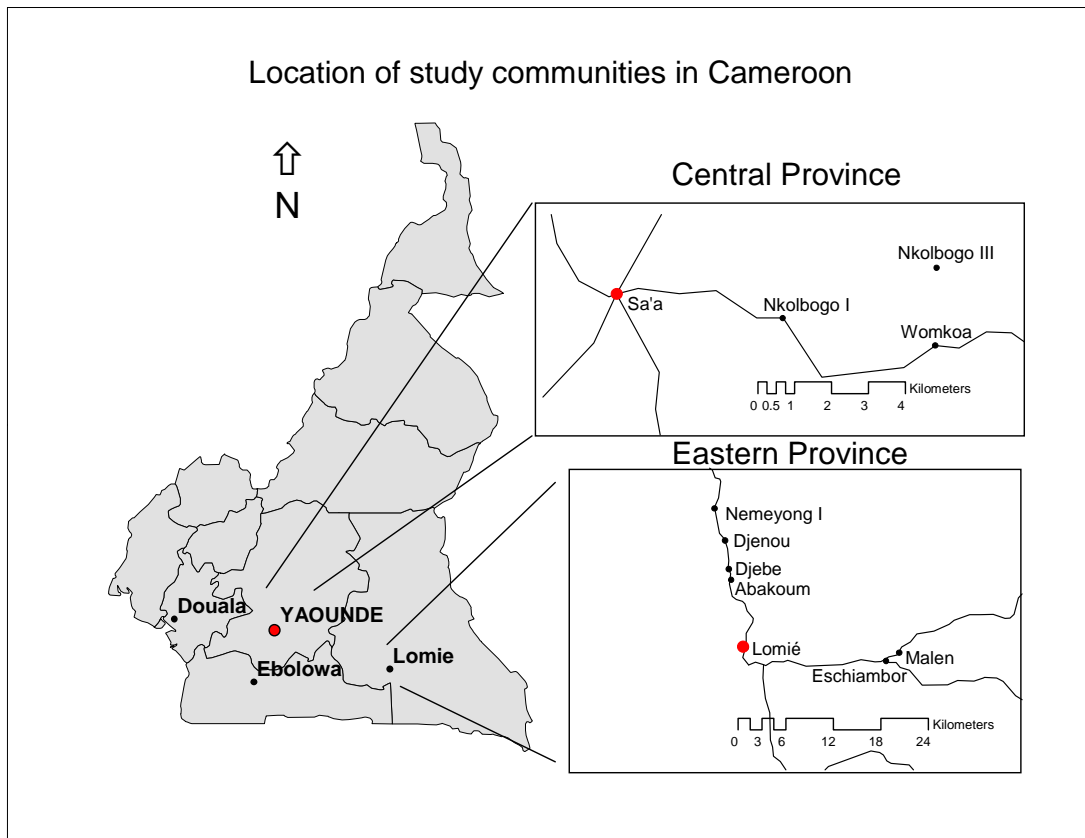
Research Area

Research focused on the collection and management of NWFPs in nine, primarily agriculturally based Bantu communities in the humid forest zone of southern Cameroon (Figure 1).⁵ The villages were located in areas representing a difference in volume of trade in the three study species *Gnetum* spp., *Irvingia* spp. and *Ricinodendron heudelotii*, which were identified as three of the nine dominant species in the markets of the humid forest zone (Ruiz Pérez et al. 2000). Six villages, located in

⁵ Of the study communities found in the low volume of trade area, several had camps of *Baka* Pygmies associated with the villages. However, for the purposes of this research the focus was on the management of NWFPs by the Bantu, as they are more integrated with the local cash economy and involved in the management of the Community Forests. Of the nine villages involved in the research only one, Nkol-bogo I, did not have or was not in the process to obtain a legalized Community Forest.

the Eastern province, in the Division of Haut-Nyong and the Sub-division of Lomié, had a low volume of trade in the study species, *Gnetum* and bush mango (*Irvingia* spp.), hereafter referred to as the 'low' area. A high volume of trade in *Gnetum* and njansang (*Ricinodendron heudelotii*) was found in the three villages in Central province in the Division of Lekié and the Sub-division of Sa'a, hereafter referred to as the 'high' area. Njansang and bush mango are both large fruit tree species that produce the same commercial product, the kernel, which is used as a condiment and is important for local people. Besides the commercial value of its leaves, the vine, *Gnetum* spp. has many uses, but is most often consumed as a vegetable. The volume of trade in different areas for the study species was determined in consultation with the Center for International Forestry Research (CIFOR) researchers in Cameroon and confirmed on site with local people in the research areas.

Figure 1



Data Collection Methods

Data collection followed a mixed methodological approach with some data being collected using a quantitative survey and others collected using qualitative techniques such as semi-structured interviews or focus group meetings (Patton 1990). To begin the research in each village, an initial meeting was held with the local chief and the responsible elders (*les notables*) and also included any important heads of local groups or committees. At a later time, meetings were scheduled separately with the men and the women in each community. Mapping of village forest resources, including extent of the forest area and types and location of the Community Forest, were conducted. Individual semi-structured interviews were also conducted with the local village chiefs. Meetings were held with the three Community Forest management committees associated with the research villages and a review of Community Forest documents was conducted.

Following on these initial meetings, Bantu collectors of NWFPs, particularly the study species, were identified by snowball sampling (Patton 1990) and anonymous, individual surveys were administered. Since the collectors of the study species were almost exclusively women, men also were surveyed in order to broaden the community sample. In total, surveys covered between approximately 20 and 75 percent of all the households in a given village. Members of the Community Forest management committee, who are predominantly men, were also surveyed. In total, 155 surveys were administered with 56.1 percent of respondents coming from the low area and 43.9 percent from the high commercialization area. Women represent 71 percent of respondents and men 29 percent with both groups representing an age range from 16 to 77 years.

Data collection took place during the months of June to August 2002, May to September 2003 and February and March 2004. Analysis and interpretation of qualitative data was done following procedures outlined by Patton (1990) and Strauss and Corbin (1998). All statistical data analyses were done using SPSS 12.0 for Windows.

RESULTS AND DISCUSSION

NWFP Market Trends

In all villages, women and their children, particularly girls, were the primary collectors and marketers of the three study species, and NWFPs in general. While still an important traditional food source for families, the study species were being marketed in increased quantities to satisfy daily household needs (Brown, Wolf, and Lassoie 2007). In the low area there was a moderate growth in the market for Gnetum and bush mango during the mid-1990's, which was tied to the advent of the logging industry into the region. Similarly, since 2000, the market for bush mango has developed to a moderate level with a market not only in the town of Lomié, but with buyers coming from other parts of the country.

In the high area most women sell Gnetum in their villages to wholesalers, who generally come three times a week to buy the leaves and transport them to the frontier market with Nigeria. In the high area the market for Gnetum was not well developed in

the early 1990's but it began to dramatically increase, during the late 1990's. This seems to be related to the overexploitation of *Gnetum* in other parts of Cameroon, which has led to it being commercially extinct in some areas (Shiembo 1999). While the market for njansang has been better developed for a longer period than the other target species, it has also increased dramatically since 2000. This marketing trend corresponds to the increased reliance on NWFPs for cash in Cameroon since the economic crises of the 1980's (Bikié, Ndoye, and Sunderlin 2000; Brown and Lapuyade 2001b). Most women in the high area sell njansang in their village to traders or market intermediaries known as *buyam/sellams*, which come from urban centers after the harvest.

Harvesting Techniques

In order to assess the degradation level of the target species, data were collected on the harvesting methods used by collectors for each product. In both areas *Gnetum* collectors removed the leaves from the vine when collecting in the primary or older secondary growth forest, the preferred collection area. In the high area most people (94.7%) also collect *Gnetum* in fields, fallows or cocoa plantations where the plants are small and have not grown into a vine yet. Most collectors (81.6%), in these areas said they cut off the stem close to the ground but are careful not to uproot the plant. Since *Gnetum* is abundant as mature vines in the forest in the low commercialization area, there is no need to collect from small plants. In the high commercialization area the ready market for the products drive women to collect everywhere they can. Continual harvesting from such small plants reduces the vigor of the plant and stunts its growth. Respondents also indicated that some people uproot the plants to collect the leaves.

All njansang and bush mango collectors collect all or almost all of the fallen fruit so the tree is not damaged. Both trees are very tall and so it is difficult if not impossible to climb to harvest the fruit. Since the primary useful product from both trees is the seeds then it is not necessary to harvest unblemished fruit. These results differ slightly from other findings as Ayuk et al. (1999a; 1999b) said they found that some people climbed the bush mango and njansang trees in order to harvest the fruit. In the low area, respondents preferred to collect bush mango from trees found in the primary forest but also collected the fruit in secondary forests and fields and fallows. In the high area njansang collectors most often collected in their cocoa plantations. This is not surprising as it has been shown that these cocoa agroforests are very biologically diverse and farmers regularly protect valuable NWFPs species in their fields and plantations (Fondoun and Tiki-Manga 2000; Fondoun, Tiki-Manga, and Kengue 1999).

Exploitation Level of Study Species

In order to assess the level of exploitation of the target species, respondents were asked to reflect on the time (minutes or hours) it took them to collect a specified quantity of the products once they arrived at a collecting area, and the distance in kilometers they had to go to collect that amount. They were then asked whether the time or distance traveled to collect the specified amount had changed in the last few years and the magnitude of the change. Respondents were also asked in an open-ended question to speculate as to the reason for the change. Using analysis of

variance and the Pearson chi-square test, differences were then explored between the high and the low commercialization areas.

Results indicate that Gnetum is being overexploited in the high commercialization area compared to the low area. In the high area most women said that the time to collect the specified amount had increased in the last few years while most in the low area said that it had remained the same (Pearson chi-square $p=0.000$) (**Error! Reference source not found.**). Similarly, collectors in the high area said that the distance they traveled to obtain the specified amount had increased while those in the low area said that the distance had not changed (Pearson chi-square $p=0.000$).

Table 1. Estimates of change in time and distance to collect Gnetum

Estimates of Change	Study Area	Decreased		Remained the Same		Increased		Varied		Total	
		n	%	n	%	n	%	n	%	n	%
Time to Collect	High	2	5.3	4	10.5	32	84.2	0	0.0	38	100.0
	Low	0	0.0	17	65.4	3	11.5	6	23.1	26	100.0
Distance to Collect	High	2	5.3	12	31.6	24	63.2	0	0.0	38	100.0
	Low	0	0.0	23	85.2	2	7.4	2	7.4	27	100.0

In both areas when respondents said there was an increase in collection time and distance traveled to collect, most attributed the increase to an increase in the number of collectors (low, 100%; high, 81.8%). Most respondents in the high area said that the increase in distance was very large (88.9%). The few in the low area, who saw an increase, said that the increase was very slight.

In the high commercialization area, most njansang collectors (88.2%) said that the distance traveled to collect a specified quantity and the time to collect it had not changed. Since most people are collecting from trees that are owned under the traditional tenure system it is not surprising that the time and distance estimates have remained the same. People have been restricting access to njansang on their land for many years and the women surveyed would likely have married into the villages and started collecting from trees on their husbands' land after that had already started.

In the low commercialization area most bush mango collectors (60.2%) said that the distance they travel to collect the fruit has remained the same over the last few years. However, 22.9 percent said that they were not able to estimate a change as the production of bush mango varies from year to year. Therefore, the trees they would collect from each year would vary and consequently the distance traveled would vary. Some women were also traveling increased distances to collect as they had increased access to trees in deeper parts of the forest due to the logging roads made by the timber companies since the early 1990's. Most respondents (81.9%) said that they could not estimate whether or not the time it took for them to collect bush mango had changed because the trees were so variable in their production from year to year. While results for the two fruit tree species were not compared, it appears that the

harvest and number of trees available for collection in each respective area remains relatively stable because people do not damage the trees while harvesting the fruit.

Although the harvesting techniques are not destructive both species are heavily exploited. Studies of Brazil nut trees in natural populations in the Amazon indicated that populations subjected to intensive exploitation levels over a long period of time have insufficient juvenile recruitment to maintain populations over the long term (Peres et al. 2003). Although the populations of bush mango and njansang have not been so intensively harvested for such a long time as that of Brazil nut, there is a risk that juvenile recruitment could be reduced if the harvesting continues at the present level or increases. However, the planting of trees would offset this concern, which is happening to a limited extent with njansang in the high area.

Village Authorities and Natural Resource Management

There are a variety of community authorities who relate to natural resources in the humid forest zone. The corporate lineage heads, who are always men, were the traditional authorities prior to colonization and still continue to manage forest resources through the customary system (van den Berg and Biesbrouck 2000; Diaw 1998, 1997). This system has also been overlaid by the system of village chiefs introduced by the colonizers and maintained after independence. The village chief is assisted in his work by the corporate lineage heads, which form part of the village council, referred to as *les notables*, together with other important people, both men and women. Results of interviews indicated that for chiefs and members of the village council, leadership is legitimated not only by heredity but also by the person's character. This emphasis on the character of a person as a criterion to being a leader reflects the deeply rooted ideal of 'equality of all' in the Bëti-Bulu-Fang group (van den Berg and Biesbrouck 2000).

More recent history has seen the emergence of other local authorities that have in some way usurped the position of the corporate lineage heads and the village chiefs in relating to natural resources, namely internal and external elites. Their authority is based on their role as mediators between the village and the outside world (van den Berg and Biesbrouck 2000). A young man in the high area defined the elite thus,

“The elites are our people who have left the village to work in the city and when there is a problem in the village, for example, a death, other needs, the road needs to be fixed; they help to put together their means with the help of the population to take care of these problems.”

In one village, the President of the Community Forest Association was a doctor who lived in Douala but had been born in the village. He was part of the initiative in applying for the Community Forest. Elites are not always exterior to the villages but others are interior elites. In most cases these are members of the new elite who have retired from their position in the city and moved back home to live. In many research villages there were retired police officers who held leadership roles in the community and also within the Community Forests. Research on some Community Forests has found that in many cases the control over the forest and its benefits were captured by the local elites (Oyono 2004a; Etoungou 2003).

Access to NWFPs in Village Forests

Low Commercialization Area

Community mapping in the low area showed that all of the six villages had abundant primary forest resources as part of their traditional forest. In all the villages, some of that primary forest was part of timber concessions awarded by the state to different timber companies. All the villages in the low area had Community Forests that had been legalized by the state. Some villages still had primary forest outside of the Community Forest and timber concessions, but others had their primary forest tied up in both these designations. The abundance of primary forest with relatively few people meant that there were fewer limitations on use of the forest and its resources than in the high area. The primary forest, which is not in timber concessions or the Community Forest, is under the jurisdiction of the village chief and *les notables*.

Access to NWFPs is open in almost all cases in the low area. Within the village, people are free to collect bush mango and Gnetum wherever they want, even if they are present on someone's traditional land. A chief in the low area stated,

“This tree, it is not you who has planted it. The tree comes from nature. It is God who sent the tree. It is for everyone. It is for the benefit of everyone. You do not have the right to keep others from benefiting. That is our philosophy.”

There are no rules that govern how much to collect or methods of collecting. However, in some villages people limit others from collecting from trees where they still have crops in the field, as they are afraid that people will damage their crops. With such an abundance of resources compared to the size of the population there is very little conflict over NWFPs. Small disputes over bush mango from trees close to the village are settled among the people themselves.

People do limit outsiders from other villages, however, from collecting NWFPs in their forest. A man in the low area said,

“For bush mangos, in the past when a woman had a large quantity she would share them ... But today, we have already begun to understand the value of these things. We have begun to prevent people from passing our village limits. When it is someone in the village it isn't a problem because we are all together.”

Just a few years ago women would come from the town of Lomié to collect Gnetum in Abakoum but as people have realized the value of the product they have been told not to come any more. Exceptions are made for those outsiders from other villages who have relatives in the village or who are from the same clan as people in the village. The chief of Abakoum said,

“We allow the women from the neighboring village to come. We are the same clan. We are neighbors If it is a woman from the neighboring village, I could have a problem here and not have possibilities to help myself. I go to the neighboring village and they help me out.”

It is a reciprocal process of helping each other out within kin relations.

High Commercialization Area

Results of community mapping showed that in the high commercialization area there was little primary forest left that had not been absorbed into the traditional tenure system except for a small amount on top of a hill or along the rivers. Interviews with the village chiefs and the chief of the *groupement* revealed that when there had been primary forest in the villages in the past it was the chief and *les notables* who had the power to decide where people could cut the forest. In the high area a chief said, "In the time of our grand parents the chief had a lot of power. That is to say that when someone arrived and wanted land then he would tell them where in the forest they could cut." The chiefs' description of their role in managing access to resources differs slightly from that described by Diaw (1998) who placed more emphasis on such a decision being made at the corporate lineage level rather than at the village level. However, when asked in the survey who gave permission to outsiders to collect NWFPs, respondents stated that it was the village chief. Diaw (1998) also mentions that if there was a dispute between the lineages over the forest then it would normally be handled in the village council. In the high area all the useable land is owned at either the household, nuclear lineage or corporate lineage levels and therefore, decisions that are made about the land are made at these levels. The chief only becomes involved if there is a large conflict over land boundaries or NWFPs.

In all three villages in the high area people protect njansang on their land held within the traditional tenure system. The trees are considered to be private property and if you wish to collect from them then you have to ask permission from the owner. A chief in the high area commented, "No one fools around over njansang." At one time the fruit used to be a common pool resource available to anyone in the village. In the last few decades however, since people began to realize the commercial value of the fruit, they began to limit access. This created conflicts at first, but incidents of conflict over njansang have diminished in recent years. The chiefs attributed this to the fact that everyone knows who owns which trees. No one comes from other villages to collect njansang in their villages unless it is by family arrangement.

Gnetum, however, still remains as a common pool resource to those within the village, but that system is beginning to change. In Nkol bogo I the chief said that it is within the last five years that people have started to limit access to collectors of Gnetum in their fields and fallows. People still collect in secondary forests belonging to someone else, however, because it is hard to restrict access. In the other two villages, which have more forest assets, quantitative and qualitative data showed that access was open to women from neighboring villages that come to collect Gnetum to sell to the wholesalers. Anyone can collect in another's field, fallow or forest without permission. However, even in these two villages change is slowly taking place as some people are beginning to try to limit access to collectors from other villages, as well as other families, because they feel that Gnetum is beginning to disappear. One young man described the problem thus. "If you see a mature vine of Gnetum on your land and you plan to return and collect the leaves later, one week later you return and you find that someone else has already collected from it." While some land owners limit people who are collecting to sell, they allow others who are collecting a small amount for home consumption.

NWFP Access and Management in Community Forests

In the low commercialization area there are two Community Forests both of which are composed of part of the forests of more than one village. The exploitation of NWFPs, including the three target species, is featured prominently in the inventory and management plans as part of the proposed benefit of the Community Forest. At the time of the research, both Community Forests were focused on timber extraction and neither had begun to implement the exploitation plan for NWFPs. According to the Community Forest law all the resources in the forest are the responsibility of the villages implicated in the forest. Therefore, in the Community Forests the association and the management committees are responsible for managing the forest. Since in some villages the Community Forest and timber concessions contain all their primary forest, this means that the chief and les notables no longer make decisions about land use. In the two Community Forests in the low area, the chiefs are honorary members of the management committee. The corporate lineage heads, however, appear to be marginalized from management although in some cases they were also members of the management committees. Therefore, the traditional land management system has been marginalized in the decentralization process (Vabi et al. 2000).

Although no one is allowed to either cut trees in the Community Forest except for home use, or make fields without first consulting the committee, these restrictions do not yet apply to NWFPs. Everyone is free to collect NWFPs in the Community Forest, but only if they are from the villages involved in the Community Forest. This restriction on outsiders began with the advent of the Community Forest, but is also influenced by the knowledge of the commercial value of the products. The Chief said, "Now we know we have a lot of riches here so we can't let everyone come to collect." People who are coming to collect a small amount for home consumption are not restricted but those collecting to sell are refused. An outsider can collect only if they have family relations with someone else in the village.

The free exploitation of NWFPs by villagers may change in the future as the Community Forest management committee begins to implement the exploitation plan for NWFPs. Village people seemed to readily acknowledge that in the future their access to NWFPs in the Community Forest would be restricted. One man stated,

"If I want to collect in this forest, I won't be able to sell only for my own personal interest. If I sell something then (Community Forest) will have a percentage. And that percentage will be for Abakoum, Djebe, Djenou and Nemeyong. Not just myself."

The management committee, however, seemed to be aware of the potential conflict that could emerge if they began to restrict people. A member of one Community Forest management committee said,

"The local people must be free. The Community Forest cannot be a barrier to them pursuing the way of life they have learned from their ancestors. We will do other projects because if we place restrictions on them they will revolt against the management committee."

The committee felt that since the resources were so abundant in their forest that there was more than enough for everyone. If there was a year of high production of Irvingia then they could collect and market as a group.

In the high area, the Community Forest of the cooperative COPAL (*Cooperative des Paysans de la Lekié*) was formed by six villages, two of which, Womkoa and Nkol bogo III were part of the research. At the time of the research this Community Forest was in the process of submitting their dossier to MINEF and completing the forest inventories for the simple management plan. The area of forest had been reserved, but it had not yet been attributed. However, exploitation of NWFPs was clearly in view as an important part of the operations within the Community Forest. Since there is not a lot of valuable timber left in the forest in the high area, COPAL appeared to put more emphasis on NWFPs as potential resources. Such products as njansang, Gnetum and Irvingia are listed in a letter of application to MINEF as being resources they plan to exploit as a community.

Since this Community Forest was in the early stages of application, they had not discussed with the population how NWFPs or other resources would be exploited and managed within the forest. Many villagers were not even aware of the process to obtain a Community Forest or of its boundaries. The fact that almost all the land in the Community Forest is held within the traditional tenure system and some NWFPs, like njansang, are essentially under private ownership may create future problems. In an interesting case in Guinea, however, where almost all land was held privately within the traditional tenure system, common natural resource management spaces were created through negotiation based on local land tenure rules and land redistribution mechanisms (Fischer 2000).

COPAL viewed the Community Forest as a vehicle for women to market their NWFPs collectively and thereby obtain a better price. How benefits would be shared between individuals and the cooperative have not yet been discussed and would be a subject for a General Assembly. However, since many people in the high area are in common initiative groups to sell their cocoa, they are familiar with the idea of doing something collectively and having a percentage of their profit cut for the benefit of the group. But, in cases where COPAL wishes to exploit timber resources, for example, on the land that someone has a traditional right to, then they would compensate them.

CONCLUSION

Management systems for common pool resources have been evolving and changing for thousands of years in response to internal and external influences. These institutions have been affected by changing state and administrative frameworks, from colonial to post-colonial periods. Often traditional institutions have been largely weakened from their inherent constitutional character, which saw them as a product of ancestral, ritual and spiritual power before colonial times (Kayambazinthu et al. 2003). Also each generation views the land differently than the elders which results in changes in land use (Russell and Tchamou 2001). In the humid forest zone of Cameroon these customary systems continue to evolve. Specifically the increasing market pressure appears to be driving some of this social change. Results showed that the recognition of the commercial value of certain NWFPs, such as njansang, led to people changing

their resource management strategies and limiting access to others. Even in the low area, although there was only a small market for NWFPs, peoples' recognition of their value in other parts of the country was an impetus to restrict access of those from outside the community.

The market, however, was not the only stimulus in cultural change as forestland availability was also an issue in the high area. The lack of primary forest resources due to increasing population and other pressures also appeared to have stimulated the trend to privatization at the nuclear lineage and household level for njansang. This same trend to privatization was observed in another part of Cameroon, where markets were well developed for NWFPs and there was demographic pressure on the land (Brown and Lapuyade 2001a, 2001b). It is also interesting to note that the market was only beginning to have an effect on management strategies for Gnetum in the high area. Even though people had been selling Gnetum in large quantities for a number of years, changes in access regimes were only beginning to take place. This is perhaps explained that because of its low, per unit market price, it was not considered important enough to protect.

Results indicated that although these adaptations in the common pool resource management system were taking place they were perhaps not leading to sustainable outcomes in the high area. Ecological indicators showed that the increasing market pressures in the high commercialization area were having a negative effect on the availability of Gnetum in the forest. The resource was being degraded by over harvesting and in some cases poor harvesting methods. A tree crop such as njansang is less vulnerable in the short term as people do not have a tradition of using destructive harvesting methods.

This degradation of the liana species in the high area shows that the culture is not adapting its institutional arrangements quickly enough to limit the negative effect of the market. This is consistent with other studies which have suggested that increasing market availability leads to degradation of the resource, if management systems do not adapt or new institutional arrangements are not put in their place (Agrawal and Yadama 1997; Crook and Clapp 2002). However, although there were some small conflicts over access to NWFPs these was not for the most part a problem. The customary resource management system appeared to be able to adapt without a lot of social conflict.

Decentralization reforms in the forestry sector have also had an effect on the customary resource management system. One positive effect is that it has given back to local communities some of the rights that were taken from them when forest resources were nationalized (Djeumo 2001). However, for the most part the traditional system has been marginalized with the advent of Community Forests, leading to conflict between those who have recognized customary powers and legitimacies over forests and those to whom decentralization reforms have given power (Oyono 2005). Roles once played by corporate lineage leaders, village chiefs and the responsible elders (*les notables*) have been replaced by Community Forest groups and management committees who have no internally recognized powers. While this has the potential to allow more traditionally marginalized groups, like women and young people, to have more of a voice, this will not happen if Community Forest management committees are captured by local elites. Elite capture has been a problem in many Community Forests in Cameroon (Etoungou 2003; Oyono 2004a; Oyono 2005). Some feel that only

democratic decentralization of natural resource management, which has not happened in Cameroon's forestry sector, will lead to truly representative management committees that are downwardly accountable to local people (Ribot 2002b, 2004).

Recognizing the problems of the Community Forest law in Cameroon, it is important to ask whether or not Community Forests can play a role in mediating the increasingly negative pressures of the market on NWFPs or other resources. Agrawal and Yadama (1997) in research on Forest Councils in India found that local investment in monitoring and guarding in Community Forests was associated with better forest condition. Through coordination of these practices by local people in the forest *panchayats* they were able to have potentially sustainable outcomes. In Nepal, however, high market value of NWFPs led to degradation in both national and Community Forests, although the degradation in the Community Forests was less (Pandit and Thapa 2004).

Community Forests in Cameroon have the potential through rules made and enforced by local management committees and the community, to limit outsider access to the forest resources. This would reduce degradation of the natural resource as has happened in other countries (Gautam and Shivakoti 2005). In one case in Nepal, however, Community Forest members did not develop rules for themselves, even though they were concerned about over harvesting, because they were concerned that such rules would deprive them of direct personal benefits (Pandit and Thapa 2004). Such conflict over limitation of access to resources within communities in Cameroon may, however, be overcome particularly if the management committee is seen to be accountable to community members. Since good character legitimizes the choice of village chiefs and *les notables* it should also play an important role in the choice of Community Forest management committees. Kayambazinthu et al. (2003) found that institutions for natural resource management that have integrated traditional, socio-cultural traits and incentives, and are given moral and political legitimacy at the local level are more stable and enduring than those that are less so.

Another issue, relating to the change of common pool resource management systems toward more privatization or other institutional arrangements such as Community Forests, is the potential effect on the marginalized of society. Different political-economic circumstances, such as these, change the terms of access and may therefore change the specific individuals or groups most able to benefit from a set of resources (Ribot and Peluso 2003). The restriction of access to resources, such as *njansang*, because they are on someone else's land means that those resources have been removed from the common pool. Those without land assets would, therefore, be at a disadvantage in deriving benefits from such resources. Coomes et al. (2004) showed that in villages in the rain forest of Peru, depending on the resources available, those with fewer land assets were more dependent on income from extraction of forest resources. Studies in Nigeria showed that women relied on NWFPs for most of their income which were readily available from the common pool because they did not have access to land for agriculture (Bisong and Ajake 2001).

Community Forests, however, do provide an opportunity for resources to be kept in a common pool that could then benefit those who do not have land-based assets. This is particularly important for women in Cameroon who do not have secure land and hence resource access, through the traditional tenure system. If a woman does not

marry, is divorced or does not have sons to inherit land, then her continued access to natural resources is insecure (Tiani 2001). She may be more dependent on resources from the common pool, which could be available in the Community Forest. Market studies of NWFPs in Cameroon showed that for disadvantaged groups, such as divorced women and widows, the NWFP trade was a survival strategy (Ruiz Pérez et al. 2002). Sometimes, however, due to the intensified management in Community Forests, resources such as NWFPs, are transformed from a *de facto* free commodity to a strictly regulated commodity (Castrén 2005). Often, men take over common pool resources traditionally collected by women when they become commercialized (Chitiga and Nemarundwe 2003). Furthermore, research on Community Forests has shown that they often do not address the needs of the poorest and powerless of the society (Edmunds et al. 2003; Kumar 2002; Castrén 2005). Therefore, further research would need to address how women, as important stakeholders, can have access in the management of the Community Forests in Cameroon.

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