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Viability of community forests as social enterprises: A Cameroon case study

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ABSTRACT. Since the concept of community forests was instituted in Cameroon in 1994, there has been an upsurge of such forest management arrangements in the country. However, up to now there is no conclusive evidence as to whether such schemes can operate as profitable ventures and at the same time meet their social and environmental objectives. The latter is the core objective of a social enterprise that constitutes the basis of our analysis. In fact, little attention has been paid to understanding the business side of community forests. In this regard, we review existing evidence about community forests making profits and simultaneously meeting their social and sustainable forest management goals. The analysis is based on a range of literature covering 20 years of community forestry experience in Cameroon and also from information gathered from nine case study community forests in Cameroon. Although not overwhelming, the existing literature shows that community forests can be run as profitable enterprises. However, profitability is conditional on the type of activities the enterprises engaged in, the capacity of the community forest entrepreneurs to run the business themselves rather than subcontracting, and on the capacity of the enterprises, especially timber related ones, to diversify into nontimber forest products (NTFPs) and agricultural activities. The available evidence suggests mixed results about the contribution of community forests to community development projects and livelihoods, and emphasizes that the legal form of the community forest, the kind of enterprise the community focuses on and the type of support received by the community forest are important drivers of viable community forest enterprises. The study further notes the absence of a sustainable funding model for community forest enterprises and recommends that government should officially classify them in the social enterprise sector. By so doing, community forests can benefit from special programs meant for the social enterprise sector including the provision of starting capital and capacity building on basic business principles.

Key Words: *Cameroon; community forest; livelihoods; social enterprises; viability*

INTRODUCTION

The global policy foundation of community forestry lies on the theoretical argument that forest communities should be given the legal rights to manage forestlands and resources, which in many cases they had been doing outside the legal framework. Ever since the approval of the 1994 Forestry Law and its corresponding decree of application in 1995, the Government of Cameroon with support of both national and international NGOs has struggled to operationalize the concept of community forestry. They have developed approaches to assist forest communities to meet policy objectives amongst which (i) create jobs and income generation activities in rural areas, (ii) improve the living conditions of local communities, and (iii) ensure sustainable management of the environment while meeting the basic needs of rural communities.

In Cameroon, those who claim that the community forestry story has been a success begin by appraising the good will of the government to officially accord local communities the right to access and manage forests and forest resources for income generation. Other signs of success are the creation of the subdepartment of community forestry and the existence of quite a good number of these community forests thanks in part to the publication of a manual of procedures for the attribution and norms for management of community forests (Minang et al. 2007). This manual has clarified the process of studying and approving files. Some authors describe the latter success stories as structural changes. They wonder if the current dispensation as provided by the law offers the necessary impetus for communities to sustainably manage the forests and ensure poverty alleviation (Ngwasiri, Djeukam, and Vabi 2002, *unpublished manuscript*).

In fact, community forest projects in Cameroon, have been ongoing for the past 20 years and there are trends that interests are now shifting from the traditional approach where conservation and development were seen as opposing forces to one centered on community forest enterprises (CFEs). Examples of such include the Dryad project (World Agroforestry Centre 2015) and the community-based forest enterprise project led by the Food and Agriculture Organization (FAO 2007). Within the lines of enterprise development, there is an emerging literature documenting and questioning the business dimension of community forestry (Angu-Angu 2006, Beauchamp and Ingram 2011, Nuesiri 2014). Similarly, Mbile et al. (2009) claim that the policy framework for community forestry has not provided an adequate context for CFEs.

We seek to provide an answer to the question of whether community forests (CFs) are viable businesses. Viability is addressed through the lens of a social enterprise whereby the latter can be defined as self-sustaining business with social and environmental objectives (Hines 2005). Understanding the viability of CFs using the social enterprise lens is important because it can help to situate community forestry in the right sector, which can enhance its development and growth. In fact, although many social enterprises (SEs) exist, the concept itself is not that well known. This lack of awareness of SEs can be an impediment to the development of the sector. In Britain for example, there was relatively little business support for SEs by 1999 because they were little known and rarely promoted by the existing infrastructure for business sustenance (Hines 2005).

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To meet the above objectives, we proceed first, by a review of the literature in which case we look at both the scientific and grey literature on the subject. Second, we triangulated the information gathered from literature with evidence collected from nine CFs that were identified to be active and involved in enterprise development activities. From both data sources we seek answers to the question of whether CFs generate profits and contribute to community development without compromising environmental objectives.

We aim to contribute to the community forestry literature in the following ways: first, we adapt the social enterprise concept as an analytical tool to analyze the viability of CFEs. Second, we enrich the contemporary knowledge on CFs as SEs in Cameroon by giving a structured overview of selected publications, project reports, and study findings. Last, we assess the factors that drive a community forest to be more business oriented rather than social and vice versa. For the latter, we investigate three sets of variables: (i) typology of activity carried out by the community forest, (ii) typology of support the community forest receives from different actors, and (iii) the financial capacity of the community forest. Finally, we identify the type of business support that a community may need to function as viable SEs.

THE CONCEPT OF SOCIAL ENTERPRISES

Although there seems to be no universally accepted definition of a social enterprise, there appears to be a general agreement that it is an independent organization with both social and economic objectives (DTI 2001). Narrowly defined, a social enterprise refers to the practice of applying business and marketing skills in the nonprofit sector (Austin et al. 2006). SEs address a wide range of social problems such as unemployment, inequalities in access to health and other basic services, low quality housing, rural exodus, and social exclusion (Haugh 2005). The “social” in the appellation of a social enterprise relates to their aim of generating noneconomic outcomes; and “enterprise” relates to their objectives of generating profits to be self-financing and independent.

According to Wallace (1999) SEs are like nonprofit organizations and they differ from for-profit ones in that they are prevented from distributing profits generated to those who exercise control over them. Any profit that is generated by a social enterprise is retained in the organization and/or community either as direct services or as grants to the targeted population. The difference between for-profits and social enterprises can also be analyzed from a governance perspective. In for-profit organizations, governance merely refers to the relationship among various participants in determining the direction and performance of the cooperation. In this light, private companies are often managed by a board, which acts on behalf of the owners and has the responsibility to maximize the objective of the cooperation either through sales, share value, dividends, or other financial measures. Whichever measure is used, the aim of the board is to maximize the wealth of its shareholders (Low 2006). SEs are generally perceived as stakeholder organizations and are theoretically owned by a community rather than by individuals or groups of shareholders (Pearce and Kay 2003). The assets of the nonprofit organizations, therefore, generally belong to the community and not to individuals.

A final distinguishing characteristic of SEs is that the governance is based on the notion that top management or a place in the management board is dependent on what individuals represent, e.g., gender, minority group, elite, and local authority rather than their ability to manage the assets of the organization (Low 2006). The implication of this on the social enterprise is that performance is partly assessed based on who is on the board and partly on what the board members can achieve. Representation and competence are often taken into consideration in SEs, but with minimal consideration of the qualities the individuals bring to the table to improve the performance of the CFEs. This directly affects achievement of the objectives of the social enterprise. By and large, in as much as representation is important, prominence also needs to be put on achieving the objectives of the enterprise such that collective benefits to the community can be enhanced by putting the right people in the management board.

Operationalizing the concept of community forests as social enterprises

We explore if and how community forestry as defined by the 1994 Forestry Law and its 1995 Decree of Implementation suits the description of a social enterprise. In addition to the above two policy documents, we also pay attention to the manual of procedures and norms relating to the attribution and management of community forest (GOC 2009). In this case, we analyze if such procedures are suitable for SEs. We do this by looking at the following variables that emanate from the narrative of a social enterprise:

1. The definition and the mission of a community forest;
2. The legal entities of the community forest;
3. The management structure of a community forest;
4. Social responsibility of the community forest;
5. Ownership of the business (shareholders vs stakeholders);
6. The profit sharing mechanism;
7. Provision of employment and typology of activities.

The 1994 Forestry Law (p. 10) defines a community forest as “a forest forming part of the non-permanent forest estate, object of a management agreement between a village community and the service in charge of forestry administration.” The management of such a forest shall be the responsibility of the village community concerned, with the technical assistance of the service in charge of forestry (GOC 1995). The above description gives a community the right to participate in the management of forests and their resources based on a simple management plan. The element of community participation in the sustainable management of a community forest portrays the latter as an entity that is accountable to the community/stakeholders rather than to shareholders (Gray 2001), which is an important aspect of a social enterprise. Moreover, the above definition of a community forest aligns with that of SEs because it combines the aspect of trade for a social or environmental purpose while striving to do business to serve the community. In fact, a community forest is authorized to carry out productive functions, e.g., management of timber and timber products or nontimber forest products (NTFPs) or hunting, and to perform environmental roles such as the protection of animal and plant species, water sources, and soils.

The decree of application of the 1994 Forestry Law outlines four major organizational forms that a community forest might take: a common initiative group (CIG), an association, an economic interest group (EIG), or a cooperative. The text of application specifies that the chosen legal entity must be as much as possible representative of all the components of the community. No matter the organizational form that a community chooses, the interest of the legal entity should go beyond just managing the community. It should aim at developing the entire community, which again aligns well with the definition of a social enterprise. The 1994 Forestry Law specifically states that the legal entity manages a community forest on behalf of the local community and not just for those who constitute the board. This specification is in line with the role of managers of a social enterprise, which as described above serves the interest of a community who are the owners of the business.

Additionally, a social enterprise was described to be governed by a body that represents who they are rather than what they can do. The decree of application of the forestry law specifies that the legal entity should be representative of all components of the community, including women, youth, and minority groups. Although this social dimension is important, the governance mechanisms as described by the text of application also borrow from a typical business world whereby, the community forest needs to adopt standards and procedures for auditing the account of the business. The latter two governance variables: inclusiveness and accountability also make a community forest a typical social enterprise.

An important specification in the 1995 decree of application is that income arising from the management of a community forest needs to be accounted for and used for the development of the entire community. The above suggests that governance of a community takes into consideration the necessity of a community forest to generate profit as any typical business entity. Such profits are expected to be used for community development and thereby qualifying them as SEs.

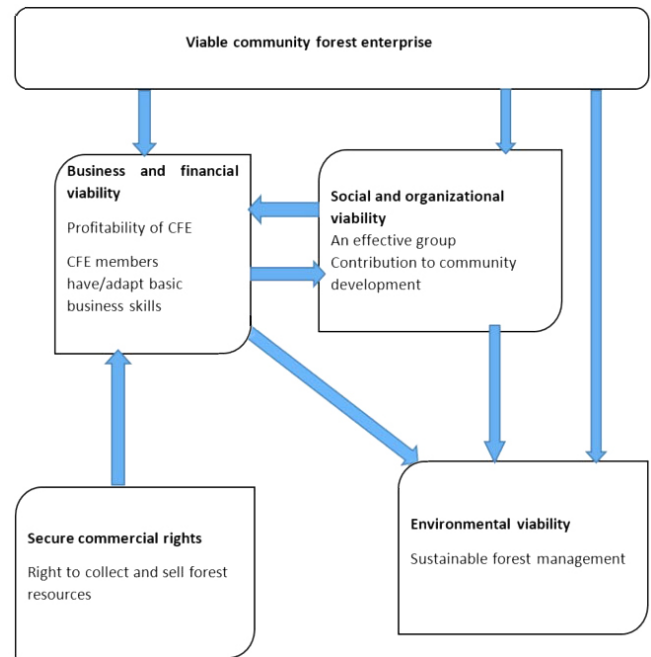
An important innovation in the community forestry policy arena has been the publication of the manual of procedures for the attribution and norms for management of CFs. This can be interpreted as an essential improvement to facilitate the creation of SEs in the forestry sector because the manual provides guidance for communities to create the legal entity and make provisions for community mobilization and buy-in into the process, which is important for SEs to succeed (Pearce and Kay 2003). Additionally, the manual of procedures lays down the principles of sustainable forest management that must be respected by forest communities and thus comply with their environmental obligations. Furthermore, the manual describes potential community development projects on which community forest can invest their net benefits and, in this case, help the communities to meet their social objectives.

Framework to assess the viability of community forests as social enterprises

The preceding section describes community forests using the social enterprise lens. This means that the framework for assessing the performance of SEs can well be used to assess the viability of CFEs. Indicators used here are adapted from international experiences with assessing SEs (Bagnoli and Megali 2011, Boyer

et al. 2008) and enabling conditions for profitable and sustainable CFEs (Macqueen 2010). The analytical framework (Fig. 1) identifies four groups of indicators that a community forest must satisfy to be classified as viable: social viability, business/financial viability, environmental viability, and secured commercial rights.

Fig. 1. Analytical framework: community forest as viable enterprise.



Business and financial viability

The framework shows that for a community forest to be financially viable, it must be able to generate profit and for this to happen its members must have basic entrepreneurial skills. Financial viability is based on the premise that community forest enterprises are first business entities and therefore cannot achieve their social goals if they do not generate enough profit.

Human capital has been identified as one of the most important factors that determine success in small and medium sized enterprises (Ganotakis 2010, Oforegbunam and Okorafor 2010). Although human capital may be generic, entrepreneurial human capital refers to the knowledge, skills, and experiences to run an enterprise or to carry out entrepreneurial activities (Hessels and Terjessen 2008). The premise to assess the entrepreneurial capacity of community forest enterprises lies in the fact that CFs are often located in rural areas with community members that have low levels of education. This implies that their capacity to manage such enterprises may be weak or limited.

Social and organizational viability

Poor community organization is often highlighted as one of the major reasons why forest communities cannot grasp the opportunities of abundant natural resources in their locality and develop sustainable enterprises (Antinori and Bray 2005). The framework (Fig. 1) shows that a community forest must be well organized and effective to be profitable (Austin et al. 2006, Boyer

et al. 2008, Macqueen 2010). An effective group should be legitimate and have the capacity to meet stated objectives. Elements of capacity include leadership qualities, strong organizational set up, ability for enforcement of rules and knowledge (Chamala and Shingi 1997, Brown et al. 2007).

Additionally, the framework brings out the relationship between good governance and environmental viability. Poor social organization may lead to weak participation and consequently weak governance, which may enhance illegal logging, deforestation, and disengagement of community members from community forest activities (Piabuo et al. 2018). In fact, the social and organizational viability of a community forest enhances social interaction or communication, which is an effective way of sharing such knowledge that could inform assessment of the viability of environmental aspects. A good coordination mechanism and proper governance structure that brings together field actors on the same agenda is thus necessary for the link between environmental viability and good governance to be established.

Based on the 1994 Forestry Law, a community forest is perceived as an integral part of rural development because it captures the basic precept of community development, which is to help the poor to become self-reliant. This implies that the contribution of community forestry to community development needs to be assessed from a poverty perspective. Specific indicators in this category include the following: income generated by individuals and groups especially women and disadvantaged community members, number and quality of jobs created, and finally livelihood benefits such as education or health.

Environmental viability

Many indicators may be used to assess sustainable management of forest and it may not be possible, or even desirable, to manage everything of potential interest within a forest ecosystem (Carignan and Villard 2002). The above challenge therefore requires only a shortlist of critical and relevant indicators to be selected (Carignan and Villard 2002, Hagan and Whitman 2006). Sustainable forest management in Cameroon is jeopardized by many factors amongst which is illegal logging, encroachment into the forest for agricultural purposes, deforestation, and degradation. Specific indicators in this category include reduced illegal logging, limited encroachment into protected forest areas, and increased number of trees planted.

Secured commercial rights

A community forest enterprise is expected to generate benefits to meet its social objectives. For this reason, secured commercial forest rights are considered as fundamental enabling conditions for such an enterprise to survive (Macqueen 2010). The analytical framework shows that secured commercial forests rights are important for CFEs because without such rights the communities will not have access to the forest and may not invest in forest activities and generate the expected profits.

METHODOLOGY

The findings in this paper are based on (i) a historical and analytical review of online scientific literature related to community forestry in Cameroon, (ii) a project review based on online available project documents, and (iii) focus group discussion with some selected CFEs. The literature consisted of either published scientific papers or grey literature from

recognized organizations and scholars working on the subject. The choice to use grey literature from recognized NGOs such as the World Wide Fund, the World Agroforestry Centre, SNV Netherlands Development Organisation, and the International Union for Conservation of Nature was to complement existing scientific knowledge on the subject with quality information that is found in the reports of these organizations. In fact, most of these NGOs pioneered the facilitation, creation, and development of community forests and CFEs.

The literature covered a 20-year period and was included if it addressed one or a combination of viability measures outlined in the conceptual framework. For the case of projects, efforts were made to cover a large spectrum of interventions, i.e., activities and approaches used by NGOs and other actors to assist communities to create CFEs and eventually CFEs.

Besides the literature review we collected information through focus groups from nine CFEs that are actively involved in developing CFEs. In the analysis, we verified how the information gathered in the literature confirms or contrasts existing literature.

In analyzing the business component of the CFEs, we verified whether they performed one or a combination of the following activities within the community forest: NTFPs exploitation, agriculture/agroforestry, services, e.g., payment for environmental services (PES) and eco-tourism. In questioning these typologies of enterprises, we assembled empirical evidence from the literature and the nine selected study CFEs and assessed how they addressed the four groups of viability measures described.

RESULTS: EVIDENCE ON THE VIABILITY OF COMMUNITY FOREST AS SOCIAL ENTERPRISES

Business and financial viability

Profitability of community forest enterprises and contributing factors

Most studies reporting on the profitability of CFEs tend to conclude that if properly managed, communities are better off with a community forest rather than business as usual, i.e., without a community forest (Cuny et al. 2007, Beuachamp and Ingram 2011; Vabi, Njankoua, Muluh, et al. 2002, *unpublished manuscript*). The studies seem to agree that CFEs generate profits by investing in one or a combination of activities including timber logging, NTFPs collection and sales, agriculture, and service provision, e.g., PES and eco-tourism (Ezzine de Blas et al. 2009, Beauchamp and Ingram 2011, Nkengfack 2011, Nuesiri 2014).

Some of the studies identified factors that determine the level of profits:

Volume of resources: The volume of the resources available is important in determining the level of profits. Vabi, Njankoua, Muluh, et al. 2002, (*unpublished manuscript*), for example, found that in high yield timber CFEs in the center, south, and eastern regions of Cameroon, timber exploitation could generate a revenue of about US\$32 per person. In other forest categories described as low yield timber CFEs, in the littoral and southern regions and in nontimber CFEs, revenues per person were estimated to be, respectively, US\$6 and US\$5.6 per person. Even though the internal rate of return was generally less than 35%, the perception was that community forestry is a profitable venture (Vabi, Njankoua, Muluh, et al. 2002, *unpublished manuscript*).

Typology of support: Fomété and Vermat (2001) assessed timber revenues generated by CFs that received support from different actors. They found that community forests supported by for-profit investors made the highest profit (on average US\$840 per tree), followed by not-for-profit investors or NGOs (US\$560 per tree logged). Those without support earned a minimal profit (on average US\$28 per tree logged). These suggest that not only support but the type of support a community forest receives may influence its level of profits. This may be explained by the fact that for-profit investors may focus on provisions that yield the highest returns while NGOs may embrace broader type support, e.g., organization and community development.

Agreement with an exploiter or self-managed: Empirical evidence was reported in some studies whereby communities managing their forest earned more revenue compared to if it was subcontracted. Ezzine de Blas et al. (2009), for example, reported that under subcontracting, an industrial operator finances a timber operation and only pays stumpage value to the community forest. Under self-managed regimes, the community gets the logging income plus the income generated by the community laborers employed. Direct income to a community derived from a community forest managed through subcontracting amounts to US\$44/m³ as stumpage fees and US\$45/m³ as labor-related income. This is significantly lower than US\$55/m³ as net timber revenues and US\$96/m³ as labor-related revenue derived from self-managed regimes (Ezzine de Blas et al. 2009).

Diversification is more profitable than specialization of product lines: Even though the above analysis shows that a community forest can be profitable with timber exploitation alone, they will make more profits if they diversified into other activities (Schneemann and van Benthum 2012). Supporting this fact, Beauchamp and Ingram (2011) analyzed differences in revenue between two studied community forest groups and show that the more profitable group participated in agricultural and NTFPs activities and earned 60% higher economic returns compared with the less profitable one that suffered agricultural losses due to higher fertility loss and forest degradation related to timber exploitation activities. The latter community forest group incurred higher cost (double) for degrading ecosystems services. Income from agricultural activities by the more profitable group were estimated to be US\$3938 per ha and US\$788 for the less profitable one. Additionally, the business plan of one community forest in Cameroon shows that timber exploitation would contribute only 7% of its total expected revenue while NTFPs and other agricultural activities accounted for the remaining 93% (Pa'ah and Bilogui 2008, 2009). Talking about the importance of NTFPs, it is worth noting that since the decline in revenue from traditional cash crops (cocoa and coffee) in the 1990s, NTFPs have been highlighted to significantly contribute to fill this gap for forest communities in Central Africa (FAO 2016).

Opening unexploited potentials/resources may yield more profits: Studies reporting the profitability of the service sector identify payment for environmental services (PES) and ecotourism as potential activities CFEs can venture into. They argue that Cameroon is endowed with a wide range of natural and cultural attractions, but CFs are yet to exploit such potentials. The Mount Cameroon Ecotourism Organization (MtCEO) was highlighted as a successful example of ecotourism that benefits local

communities (Nkengfack 2011, Nuersi 2014). The MtCEO experience shows that a community forest can receive an average of 6462 tourists within a 10-year period and generate benefits worth about US\$237,143 over the same epoch (Nkengfack 2011). Though years of high and low tourist activities may affect annual profits, statistics from the MtCEO shows that the number of tourists received during the last 10-year period has been increasing.

In the single case where PES was reported in the CFs literature, the CFs concerned were highlighted to have added PES in their simple management plan and this was later approved by the ministry in question as an income-generating activity (Cross and McGhee 2015). The PES-related activities in the pilot project were not too different from those in any forest related program. They included training, support for improved agroforestry, agricultural activities, and improved farming methods.

Findings from the nine case studies revealed that timber exploitation was their main source of revenue for all the CFs and there was hardly any diversification of revenue sources. Only three out of the nine CFs had participated in PES-related activities and thus diversified their income from timber. Even though the literature mentioned that NTFPs may be an important source of revenue for CFs, none of them was involved in the collection and sale as a business for the benefit of the community. Instead, NTFPs collection was reported by all nine CFs as an activity led by individuals, especially women, for private benefits. All the CFs declared to have generated profits in their timber activities confirming the literature that CFs can be profitable. This can be understood because none of them carried out the timber operations. Instead, they subcontracted the activity to individual business men from whom they received stumpage value. The CFs claimed to make annual benefits from timber that ranged from a low of US\$760 to a high of US\$19,000. The three CFs that were involved in PES each received US\$8000 a year for two consecutive years. In three out of the nine case study CFs, the activity to obtain official papers to exploit timber was sponsored by the business operator and for the remaining six the community self-sponsored the activity. Community forests that were in less accessible areas spent more to obtain legal documents and received lower amounts of money per volume of wood exploited and consequently made less profits.

Community forest enterprises and business skills

Most of the literature provided negative opinion about the business capacity and skills of community forest members. However, some were optimistic about the future. On the negative note, Merlet and Fracticelli (2016), for example, reported that forest communities in Cameroon were given responsibilities to carry out commercial forest and enterprise-related activities when the communities did not have the skills, and local capacity-building processes were not yet in place to build the kind of abilities needed to run CFEs. Ezzine de Blas et al. (2009) addressed if and what kind of support community forest groups received in Cameroon by analyzing 20 randomly selected cases. They found that 15% of them had not received any kind of support. Only 15% were supported from the initial process of establishing the community forest right up to production and marketing. Most of the community forests (55%) had received support that assisted the community to elaborate a simple management plan and build

capacity for forest management. Alternatively, 15% were given only administrative support to create the community forest. The authors highlighted that such minimal support of only assisting CFs to go through administrative bottlenecks is worse than no support at all. This is because support below a minimum threshold results in communities ceding out their forest to private operators who rarely contribute in developing the community. Minang et al. (2007) shows for the case of two community forests in Cameroon, Tinto and Bimbia, with a total of 25 members in the management committee that only one of the 25 members had basic knowledge in cost benefit analysis, which is generally not enough for business development. The lack of community capacity in business and forestry management often results in negative performance of the community forest enterprises (Ezzine de Blas et al. 2009) because they may need to hire such services, which are often not cheap (Minang et al. 2007).

Although early projects on community forestry were interested in assisting forest communities to create community forests, there are some positive reports that CFs in Cameroon have started adopting business skills. For example, a WWF project that focused on enterprise development within CFs trained and coached community members about detailed annual operating plans and budgets, technical reporting and quarterly financial reports (Seve 2010). Some CFs supported by a local NGO, CAMECO, had well-developed business plans (Pa'ah and Bilogui 2008, 2009) but there were no signs that these business plans had been operationalized or transformed from plans to concrete projects. A recent effort that embraces the business concept in community forest management is the Dryad project (World Agroforestry Centre 2015). Dryad, focuses on delivering performance-based finance to local communities to develop viable CFEs. Potential CFs to benefit from Dryad funding would need to elaborate an implantation plan that should also describe their capacity building needs including technical, marketing, finance, and management skills.

Discussions with the nine CFs revealed they had limited business skills. Two out of the nine claimed to have business plans but also reported they are not using them in the day-to-day management of their forest because they do not understand its content. The business plans were developed with the assistance of NGOs through projects. In terms of human capacity, six out of the nine case study CFs had either a retired teacher in their management team or someone who occupies or has occupied a position in government or the private sector. These individuals might not have been trained in business but were reported to assist the groups in writing reports and in elaborating income expenditure statements. The CFEs reported that with pressure from NGOs they are often forced to include all social classes in the management committee. Three out of the nine CFs had Bakas in their management committee. The Bakas serve as forest guides in two CFs and in another, they play the role of advisers. Six of the groups had women but they played marginal roles as advisers and only in two cases did they occupy strategic positions like secretary, treasurer, and vice president.

Social and organizational viability

Two main groups of indicators were used to assess the social and organizational viability of community forests as social enterprises.

An effective group

The papers reporting on the capacity of community forest groups all agree that the existing structures are not the best institutional forms to manage common pool resources (Djeumo 2001, Oyono 2004a, b). In fact, from a total of 375 CFs identified from the Ministry of Forests and Wildlife database that had definite simple management plans or that were in the process of obtaining one, 238 were CIGs, 135 were associations, and one was a cooperative. Based on interviews with local management committees, Oyono (2004a, b) conclude that the legal entities are weak, ill equipped, and illegitimate to manage a community forests. Other authors consider that the legal entities are imposed and alien to existing traditional institutions that are continuously recognized as managers of common pool resources (Diaw and Oyono 1998, Djeumo 2001).

Contribution of community forest to community development and livelihoods

Some of the literature reported positive contribution of CFs to well-being and others reported the contrary. In cases where positive influences were reported, they seem to differ by community forest activity:

Eco-tourism and PES

In general, the literature was positive about the contribution of the service sectors: eco-tourism and PES to community development. Nkengfack (2011), for example, illustrated that for the case of MtCEO, funds destined for community development were used to construct pipe borne water, a community hall, and provide electricity to the community. The same study further demonstrated that ecotourism and protected area activities were the third most important source of livelihood for 38% of the 12 case study villages after agriculture and NTFPs. The MtCEO had provided jobs to about 134 people (Nkengfack 2011).

Results from the focus group discussions confirm that PES may be an important source of revenue to finance community development projects. For example, three CFs generated a total of US\$48,000 within two years from PES-related activities and the money was used to carry out different social projects in the community. One of the community forests used the revenue from PES to purchase aluminium roofing sheets for 50% of the houses in the community, and acquired 32 solar lamps and each household now owns one. They also supported 17 elderly people each year for two years with an amount of US\$66 per person, provided agricultural inputs to women in the community worth US\$800 and contributed roofing sheets to roof two church buildings and contributed in paying the salaries of teachers (Table 1).

Timber

We found mixed results about the contribution of timber-related activities to community development and livelihoods. On the positive note, Topa et al. (2009) and Ezzine de Blas et al. (2009) argue that timber exploitation, within community forest, can derive direct benefits in the form of employment, and indirect benefits including material goods, access to facilities, and other nontangible benefits such as social capital derived from establishing a community forest. The results from the nine case study CFs showed that CFs relied more on timber than any other resource in the forest to carry out development projects. In fact, all seven CFs that had carried out development activities

Table 1. Case study community forests and their social and environmental projects.

Name of community forest	Social projects executed	Source of revenue to finance development projects	Positive environmental activity
Community forest 7, Note, communities 8 and 9 carried out similar activities	Improved housing (purchased roofing sheets for about 22 houses in the village); Purchased solar panels for each household; Purchased community brick molding machine to improve quality of houses; Paid salary of teachers; Supported 17 old people financially to the tune of 33000 FCFA per person; All women were supported financially to buy inputs for agricultural activities (400,000 FCFA); Constructed two churches (Catholic and protestant) with local materials and provided aluminum roofing sheets.	PES and Timber	13 individuals interested in cocoa production were provided with planting materials including fruit trees to integrate in cocoa farms; Set aside US\$100 a month to monitor illegal logging activities.
Community forest 6	Constructed 03 wells; Constructed a health center (though not completed); Extended electricity connection to different neighborhoods in the community.	Timber	Planted 35,000 trees in degraded areas.
Community forest 5	None	NGO assistance Tried timber but failed because of lack of resources.	Planted 22,000 trees in degraded areas.
Community forest 4	None	NGO assistance. Tried timber but failed because of lack of resources.	Planted 7000 trees.
Community forest 2 Community forest 3	Constructed 2 boreholes worth US\$20,000; Constructed community hall; Construction of 2 classrooms in the government primary school worth US\$24,000; Distributed roofing sheets for 13 households worth US\$6000; Paid salaries of 4 teachers for a total of US\$3000 a year; Maintenance of boreholes; Support for the sick and old.	Timber	Planted 500 timber (Patchy and Iroko) trees/year over two years.
Community forest 2	Purchased roofing sheets for some community members for a total of US\$4000.	Timber	None
Community forest 1	Constructed a kindergarten for a total value of US\$9200; Constructed 02 bore holes; Open roads; Pay salary of teachers; Give scholarship to students; Gift of drugs to the village pharmacy.	Timber	Planted about 500 timber species.

generated all or most of the resources from timber (Table 1). None of the community forests in the selected nine mentioned any development project realized with funding from NTFPs activities. The reason may be that collection and sale of NTFPs is generally perceived as an individual business.

Despite the above positive views, there were more arguments against and negative evidence on the contribution of community forest to community development. For example, Oyono et al. (2012) provided testimonies through a study of four community forest projects from 15 villages in four regions of Cameroon that benefits from CFs are not meaningfully invested in health and education. Other authors did not report any positive contribution of the timber sector to community development, either through poverty reduction nor sound environmental management goals (Ceruti and Tacconi 2006, Topa et al. 2009, Oyono et al. 2012). This is because local elites who have a good mastery of administrative procedures and of commercial logging skills work closely with central governments and appropriate CFs. By doing so, they corner profits that were meant for an entire community (Oyono 2004a, b, Topa et al. 2009, Merlet and Fracticelli 2016).

Even though it was reported above that timber operations provide employment to forest communities, the working conditions imposed by the logging companies are generally described to be appalling, and jeopardizing to human health (Merlet and Fracticelli 2016). Under agreements, industrial operators bring their staff to exploit timber, and community participation is often limited to unskilled labor such as head portage of timber, from felling to loading points (Angu-Angu 2006, Ezzine de Blas et al. 2009). Other analysts argue that CFs that pay more attention to timber may contribute to reduced livelihood options for other community members (Rist et al. 2012). In fact, timber activities were reported by 82% of a total of 38 articles reviewed by Rist et al. (2012) to have negative impacts on the availability of or access to NTFPs of livelihood importance. Such negative consequences reported include mechanical damage related to the passage of heavy duty machines and reduced accessibility due to overgrowth of dense thickets of the thorny Maranthaceae (Rist et al. 2012).

Members of the nine case study CFs argued that they are increasingly enlightened about the importance of NTFPs and PES as alternative income-generating activities with CFs.

However, they maintained they would need backstopping to practically implement strategies to generate income from PES and NTFPs, especially because the latter are already being exploited by individuals.

Secured commercial rights

Our interest in addressing secured commercial rights in this paper is to establish the link with enterprise development. In general, studies on secured forest rights pay attention to five main variables: excludability, duration, assurance, robustness, and simplicity (Macqueen 2010). In this respect, most analysts of the Cameroon 1994 Forestry Law agree that unlike postcolonial institutions, contemporary formal laws give forest communities access and trade rights, which are exercised within the context of CFs in Cameroon (Oyono 2009, Movuh 2013; Ngwasiri, Djeukam, and Vabi 2002, *unpublished manuscript*). Within the context of enterprise development, it means that forest communities have at least the basic rights to collect resources from their CFs for economic reasons. However, practically exercising such rights is not without obstacles. For a community forest enterprise to be guaranteed of secured forest rights, the duration of such rights need to be long enough to motivate investment (Macqueen 2010). Although the period over which a community in Cameroon is authorized to manage a community forest (25 years) may be considered long enough, the said community is supposed to renew its management agreement every five years and in addition reintroduce its annual exploitation certificate yearly. These renewal processes are characterized by high transaction and operational costs coupled with rent seeking behaviors of the forest administration in charge (Mbile et al. 2009, Oyono 2009, Foundjem-Tita et al. 2014; Ngwasiri, Djeukam, and Vabi 2002, *unpublished manuscript*). Such costs have been highlighted to limit business performance (North 1990). In fact, high transaction costs also limit another important element of secured commercial rights: simplicity. On average, it takes about four years with NGO support for a community to obtain a management agreement with the government and the entire process may require about US\$24,000 (Mbile et al. 2009). High transaction and operational costs bring with them incidences of illegality that may discredit trade transactions in CFs. Focused group discussions with the nine community forests confirmed the existence of such costs to renew administrative documents. Data from nine case study CFs reveal that on average, a community forest would need about US\$30 per ha to obtain an annual exploitation certificate and about US\$360 to obtain a way bill. Usually they would need US\$65 to obtain what they referred to as “notification to start.” For some of these fees and in some cases an official receipt was issued while for others no receipts were given.

Environmental viability

The literature on the contribution of community forestry to the sustainable management of forest resources is mixed as to whether the theoretical objectives of sustainability have been met in the field. On the affirmative side, Eyebe et al. (2010) and Oyono et al. (2012), argue that possession of a simple management plan by all CFs in Cameroon is already a good start for sustainable forest management. The simple management plans provide opportunities for community members to plant trees. This is particularly important in the savannah areas of Cameroon where thousands of trees have been planted in the north of the country

by communities to green the savannah (Eyebe 2010). Similarly, experiences demonstrated by Birdlife International through the Kilum-Ijim forest project and the Bamenda Highlands Forest Project reveal that CFs contribute to sustainable forest management with significant impact being a halt in forest destruction and conservation of important flora and fauna (Gardner 2002). Furthermore, the project recorded significant spill-over effects to other communities in the Bamenda High Land increasing the extent of the montane forest in the region through regeneration of degraded areas in the forest (Gardner 2002).

Cross and McGhee (2015) demonstrated that some community forests in Cameroon have tried to incorporate PES-related activities in their community forest management activities during which old and new fallows and cocoa farms were enriched with fruit trees of different varieties. For other projects, community members are trained on nursery techniques. These activities no doubt contribute to increasing or replacing wood lots in community forest settings. Nuesiri (2014) and Cross and McGhee (2015) further reveal that activities in the service sector, e.g., PES and eco-tourism, are nondestructive; instead they contribute to increasing the forest cover through tree planting efforts. Ecotourism in the Mount Cameroon project area is promoted as an alternative to hunting activities (Nkengfack 2011), which contributes to protect biological resources in the forest.

The more pessimistic views about the contribution of CFs to sustainable forest management hold that the very fact that CFs are in the nonpermanent forest domain is already a call by the institutions in place to transform the forest into other land uses, which may have negative consequences on the forest (Ceruti and Tacconi 2006, Ezzine de Blass et al. 2009). Some authors argue that the resource base for CFs in Cameroon has not changed positively ever since the concept was introduced; instead it is more and more threatened (Oyono et al. 2012). Compared to other CFEs dealing with NTFPs and ecosystems services, the long-term sustainability of CFs that depend upon timber is more endangered because of the rush to make short-term gains by associating with industrial timber operators to intensify timber extraction (Oyono 2004a, Angu-Angu 2006, Ruiz Pérez et al. 2006). Timber operations within CFs seem to be marred by illegal timber operators who are solicited by community forest members to bring in technical and financial resources to carry out such activities (Beauchamp and Ingram 2011, Tropenbos 2012, Merlet and Fracticelli 2016). One study, for example, shows that 62% of all harvested trees in a community forest were not included in the annual logging unit (Tropenbos 2012). Most of the time, artisanal logging is used as a cover for illegal logging (Topa et al. 2009). Although timber exploitation in CFs is supposed to be preceded by tree planting and other forest management activities, Oyono et al. (2012) and Merlet and Fracticelli (2016) argue that there is little or no evidence that those activities are executed, in which case forest degradation is evident.

Results from the nine selected CFs seem to deviate from Oyono et al. (2012) and Merlet and Fracticelli (2016). In fact, four out of the nine case study CFs had planted trees more particularly to enrich their forest with timber species and another three community forests planted cocoa and integrated fruit trees in the cocoa farms. One community forest mentioned having planted as many as 35,000 timber species in degraded sections of their forest

while figures as low as 500 timber species were also reported by one of the CFs (Table 1). All the nine CFs reported incidences of encroachment into the forest, deforestation for agricultural activities, and illegal logging. The latter was commonly practised by individuals external to the community. These unsustainable practices had encouraged three out of the nine CFs that participated in PES to set up vigilante groups to survey the forest against such illicit practices. One of the CFs described a scenario whereby illegal logging was reported to the Ministry of Forestry and Wildlife and the report led to the punishment of some officials after investigations.

CONCLUSIONS AND RECOMMENDATIONS

This review was set out to assess the viability of CFEs in Cameroon. Viability was weighed through a social enterprise lens by asking whether such enterprises in Cameroon make profits and at the same time meet their social and environmental objectives. Our reading of the evidence suggests CFs in Cameroon meet one of the fundamental dimensions of social enterprises, i.e., they can be run as profitable businesses. However, profitability is conditional on the type of activities the enterprises engaged in, and the level of vertical integration, i.e., capacity of the CF entrepreneurs to run the business themselves rather than subcontracting. Some of the studies demonstrated that CFEs dealing with timber will increase profits if they diversify their activities and include NTFPs and other agricultural activities rather than just concentrating on timber. The reviews demonstrated that profitability of CFEs could be compromised because their leaders are often chosen because of who they are rather than their capacity to manage. The prospects of CFEs to make profit as revealed by our study is similar to the results of Humphries et al. (2012) who reported similar findings for two out of three case studies in the Brazilian Amazon and Cabbage et al. (2015) who report that 30 out of 31 CFEs studied in Mexico generated profits. As in the Cameroon case, profitability in the Brazilian Amazon and Mexico are conditional on the scale and typology of activities.

A majority of the literature confirmed community forests in Cameroon adopt the right governance structures as stipulated by law, but also conclude that the organizational forms (CIGs, associations, and cooperatives) jeopardize an important element of social enterprises: ownership of the business by communities. Our understanding is that leadership of the various organizational forms are short on representativeness, weak in decision making and capacity to mobilize the entire community to work together to achieve common goals. In this regard, they may therefore not be effective within the context of a social enterprise. This is especially because as discussed in the results section the existing power relations and the institutional environment open the way for some community forest leaders to sacrifice community benefits for individual gains.

The literature about the contribution of CFs to livelihoods and community development were indecisive but when positive, suggested it depends largely on the sector of activities and on the element of community development/livelihood that was assessed. Evidence from the literature suggests timber extraction and ecotourism provided more paid jobs for a greater number of persons than NTFPs. The experiences from the PES project carried out by the Centre for Environment and Development and

the ecotourism project by Mount Cameroon together with the case study CFs suggest that the service sector can support a broader set of pro-poor growth strategies with opportunities for generating revenues with limited negative consequences on the environment. Failure to consider the important role of NTFPs and the service sector to build CFEs can misguide policy, funding, and research priorities. However, the case studies show that CFs would need backstopping to embrace these activities. In general, the studies were negative about a positive contribution of CF logging to environmental sustainability, which disaffirms the environmental viability of community forestry and contradicts the situation in Mexico where a majority of CFEs are involved in sustainable timber exploitation with only 2 out of 30 CFEs involved in unsustainable timber harvest (Cabbage et al. 2015).

The above findings represent a connection of knowledge among community forestry strategies, livelihoods, and environmental protection and holds implications for different practitioners, policy design, and research. Practitioners are thus called upon to pay attention to the entrepreneurial capacity of community members and adapt legal forms that bring on board community forest managers who are representative of the community but also have the required business skills. This however needs research and policy support. Research needs to assist policy makers by identifying the best institutional arrangements that will optimize community participation and encourage lead entrepreneurs to guide the communities to meet social enterprise goals as defined in this study. As earlier mentioned, the existing governance structures (CIGs, associations, and cooperatives) although legal do not guarantee community appropriation of CFEs. Additionally, there is need to further theoretically strengthen the relationship between the two concepts (community forestry and social enterprises) and continue to develop adequate variables that may be used to assess performance.

Although most of the studies mentioned capacity building, only a handful were worried about a sustainable funding model for this category of enterprises. There is need to think about options and models to provide starting capital for CFEs, especially because forest dwellers are often described as poor. One option would be for governments to officially classify CFEs within the social enterprise sector. In this way special programs can be designed to enable them to benefit from potential business support that the social enterprises need before they start making profits. Such support may include but not be limited to provision of start-up capital, reduction/elimination of taxes often applied to conventional for-profit organizations, capacity building on skills and resources to sustainably manage such businesses, develop private sector linkages, and reduce procedures and operational costs to obtain official documents, e.g., simple management plans for the specific case of Cameroon.

Responses to this article can be read online at:

<http://www.ecologyandsociety.org/issues/responses.php/10651>

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