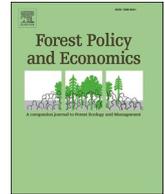


Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Forest Policy and Economics

journal homepage: www.elsevier.com/locate/forpol

Community forest enterprises (CFEs) as Social Enterprises: Empirical evidence from Cameroon

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ARTICLE INFO

Keywords:

Community forestry
Social entrepreneurship
Governance
Non-profit enterprise
Rural development

ABSTRACT

Community forest enterprises (CFEs) trade to meet the economic, social, and environmental challenges of their community, just as Social Enterprises (SE) do. The question is if CFEs also could and should be understood in terms of SEs. To explore this question, this study determines the extent to which CFEs can be classified as SEs, using CFEs in Cameroon as a case study. Based on the three-dimensional EMES framework in combination with the typology of SEs of Alter, CFEs are classified along a continuum of purely non-profits, non-profits with income-generating activities, and SEs. Document review, interviews, and focus group discussions with CFE management, youths, women, and indigenous groups in 38 communities were used for data collection and subsequently analyzed. Of the 38 CFEs investigated, only 11% could be defined as SEs, 63% are non-profit organizations with income-generating activities and 26% operate as traditional non-profit organizations. The majority of the CFEs (63%) engage in commercial activities for revenue generation but lack the skills and organizational setup to employ full business approaches coupled with financial discipline and community ownership, which are core values of SEs. Operating as SEs would permit CFEs to be financially and environmentally sustainable and thus they could easily contribute to community development. However, moving CFEs from “non-profits with income generation” to SEs requires (i) a change in mindset, (ii) evaluation and building of community capacity for CFE development, (iii) proper research on tensions and paradoxes with actionable solutions, and (iv) sectorial coordination for CFE development, support, and creation of CFE incubation centers.

1. Introduction

Over recent decades, community forest management (CFM) has increasingly been used to manage tropical forests (Arnold, 2001; Wiersum, 2009; Whittingham and Agrawal, 2019). In Africa, for example, 85% of the forests are owned by communities, with only 4% owned by individuals and 11% by business entities and institutions (FAO, 2020). Cameroon in 1994 voted a law authorizing communities' access and management rights to a maximum of 5000 ha of non-permanent land to be managed as community forests (MINFOF, 2009). The devolution of forest management to local communities through community forestry has the objective of (i) enhancing participatory management of the forest, (ii) improving the livelihood of the forest-dependent population, and (iii) promoting sustainable forest management (MINFOF, 2009). However, after three decades of experience with forest management decentralization, CFM has not adequately delivered on participatory forest management and livelihood improvement of forest-dependent

communities (Baynes et al., 2015; Bas and De Koning, 2017). Lack of income generation, poor business skills, poor access to markets, governance, inadequate policy, and structural reforms have been underlined as key reasons for the failure of CFs to enhance livelihoods and participatory forest management (Duguma et al., 2018; Piabuo et al., 2018; Foundjem-Tita et al., 2019).

Community Forest Enterprises (CFEs) are being promoted as viable options to overcome these challenges. CFEs are defined by Macqueen (2008, p3) as “an entity that undertakes commercial business based on forests or trees.” A credible representative body oversees it. The enterprise can claim legitimacy within a self-defining community in terms of people and area, and it generates and redistributes profits within that community. “Macqueen (2012) underscores that positive multiplier effects from CFEs on rural economies such as skilled jobs, higher incomes, better terms of trade, and higher consumption are key reasons for promoting CFEs as a tool for CFM. CFEs are also promoted because financial incentives will serve as extra motivation for rural communities to better

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<https://doi.org/10.1016/j.forpol.2021.102664>

Received 11 June 2021; Received in revised form 24 November 2021; Accepted 25 November 2021

Available online 1 December 2021

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manage and restore their forests (Kyaw-Tint et al., 2014). Macqueen (2010) also describe CFEs in terms of three key features: (i) trade in goods and services for profit and not subsistence, (ii) the interests of the whole community are represented in management and distribution of benefits, and (iii) self-definition and determination of a community in a specific area. Within the framework of this study, CFEs are community entities involved in the governance and management of forests resources, they trade in different forest products such as timber, non-timber forest products (NTFPs), agriculture, and aquaculture to generate income that finances the social and environmental goals of the enterprise (Tracey et al., 2005; Ambrose-Oji et al., 2015). These CFEs operate under the legal canopy of CFs; CFs are considered legal when they operate within the framework of a revised simple management plan and required exploitation permits for resources exploited (MINFOF, 2009; Minang, 2019). Foundjem-Tita et al. (2018) also supported the view that community forest enterprises (CFEs) might be viable options for revenue generation, sustainable forest management, and provision of social services.

Over the last years, the question was raised if these CFEs could also be considered as Social Enterprises. The concept of Social Enterprise (SE) is increasingly used in the scholarly literature to describe enterprises maximizing social and environmental value creation (Barraket et al., 2016; Kartalozzi and Xhemajli, 2017; OECD/European Union, 2013). These enterprises are characterized by a principal social purpose of ensuring environmental responsibility, respect for nature, people, and social equity. However, in contrast to charities and non-profit organizations which also aim for improvements in human and environmental wellbeing, SEs apply commercial strategies and generate profits, just like “normal” enterprises to achieve their social mission (Bretos et al., 2020). Hence, at a first glance, CFEs seem to have a similar hybrid character as SEs.

Foundjem-Tita et al. (2018) propose that viewing CFEs as SEs can help situate (CFEs) as social economy organizations, which could further enhance their development and growth. Eversole et al. (2013) also argue that if CFEs are classified as SEs, this can provide new insights into how local communities govern and progress towards their development goals across multiple domains. The SE lens can also provide lessons on how communities mediate relationships with other actors (Berkes and Davidson-Hunt, 2007), how they challenge path-dependent ways of working, and how they enhance more inclusive local governance (Eversole et al., 2013). It can also provide evidence that will allow CFEs to benefit from policies that “normal” businesses cannot have, such as tax exemptions and incentives (Antinori and Bray, 2005; Foundjem-Tita et al., 2018).

One of the main issues is that SE is a concept that is poorly defined and controversy over definitions and classifications is common (Lloyd, 2002; Nicholls, 2006; Jones, 2007). Although most scholars agree that SEs combine social objectives with market approaches, the reality is that meeting these two extreme goals is not a dichotomy, but a continuum of many grey shades (Dees and Battle Anderson, 2006). This also means that different types of SEs exist, varying across cultural, historical, regulatory, country contexts and sectors (Daniele et al., 2009; Barraket and Collyer, 2010), with different identities and missions (Borzaga and Defourny, 2001; Noya, 2009; OECD, 2006; Barraket and Collyer, 2010).

This paper aims to provide empirical evidence on if and to what extent CFEs can be classified as (a type of) SE, using CFEs in Cameroon as a case study. Cameroon forms an excellent case for two main reasons. The first is that CFEs are well established in this Central African country. The 1994 Forestry Law and its 1995 Law of Application grant forest communities the right to exploit forest resources (timber, non-timber, fauna, and water) for the benefit of the community, when agreed in a simple management plan (SMP) (MINFOF, 2009). Secondly, in Cameroon, the discussion on CFEs as SEs has already started. For example, Foundjem-Tita et al. (2018, 2019) report that CFEs in Cameroon generate economic profits and produce social and environmental public goods and, from a policy perspective, should be classified

as social enterprises so that they should be able to benefit from the associated tax incentives and government support that other social enterprises do receive. However, the findings of Foundjem-Tita et al. (2018) are limited because they were based on a literature review and grey literature with no specific methodology for collecting and weighing data from the various literature they cited. This paper innovates in that (i) it employs a new framework to assess CFEs as SEs, classifying them along a continuum. and (ii) next to that, it is the first paper in Cameroon and the Congo Basin to empirically assess CFEs as social enterprises. The classification of CFEs along a continuum in the new framework permits practitioners to tailor technical support to the needs of CFEs based on where they are situated.

Next to the empirical contribution, this study also contributes theoretically to research both on CFEs and SEs. This paper identifies the weakness in the approach of using EMES criteria to classifying SEs and proposes a conceptual framework that better corrects this weakness. To the best of our knowledge, the combination of the Emergence des Entreprises Sociales en Europe (EMES) framework with the typology of Alter (2004; 2007) to cluster the CFEs in Cameroon on a continuum, as either traditional non-profit organizations, non-profit organizations with income-generating activities, or SEs, has not been applied in the forestry sector in an African context; this study extends it to Cameroon and possibly to the African context.

The remainder of the paper is structured as follows. Section 2 describes the conceptual framework underlying this study. In section 3, the methodology is described. Results are presented in section 4. Section 5 discusses the findings. The paper ends in section 6 with the conclusion of the study.

2. Conceptual framework

The term “social enterprise” is related to and often used interchangeably with other terms such as “social economy”, “not-for-profit organizations”, and “third sector organizations” (Darinka et al., 2012). Confusion of what these terms entail is, however, a major preoccupation in the SE literature (Christie and Honig, 2006; Chell et al., 2010). SEs are often defined as “businesses with primarily social objectives whose surpluses are principally reinvested for that purpose in the business or the community, rather than being driven by the need to maximize shareholders profit” (DTI, 2002; p8). This definition stresses two main elements of SEs: social (including environmental) objectives are tackled, but an underlying financial motivation is needed for an enterprise to focus on these social and environmental issues (Chell et al., 2010). Or, as Kay et al. (2016) explained, SE uses economic activities to an end; the end being social, environmental, and even societal impacts.

This broad definition, however, makes it difficult to see when an enterprise classifies as a SE. Lyon and Sepulveda (2009b) state that the broad definitions mean that “many organizations that do not define themselves as SEs are defined as such, but would agree that they are involved in “social enterprise activity” and that “there may be others that define themselves as SEs, but which do not meet the defining test”. Pestoff (2013) writes that in terms of SEs, two conflicting extremes can be found, (1) anything goes, and (2) almost nothing qualifies. One model used to characterize SEs that can be found somewhere in the middle of these two extremes is the EMES framework. This approach, developed for the European context, forms, as Pestoff (2013) stated a stable middle ground, using a set of indicators and not a predefined definition of what a SE is. Initially, the EMES consisted of two subsets of indicators: a set of four economic and entrepreneurial indicators and five social indicators (Defourny, 2001), reflecting the two major dimensions of SEs. Several scholars used this as a basis to elucidate a continuum of practices aimed at generating income for the principal social mission, thus from more economic to more social and environmental goals (Darinka et al., 2012). By comparing these indicators with other schools of thought, Defourny and Nyssens (2011; Defourny and Nyssens, 2012) decided to present these nine indicators in three subsets rather than in two, thereby

highlighting the governance aspects of SEs. This paper uses this three-dimensional framework (see Table 1).

The EMES indicators are not intended as conditions that should be completely fulfilled for a CFE to qualify as a SE. They provide a basis to situate CFEs along a continuum of social to a more economic spectrum. Although this abstract construct of a “galaxy” of social enterprises (Defourny and Nyssens, 2013) is considered a strength of the frame, at the same time is it a weakness of the approach, as it offers no clear boundaries to separate a social enterprise from a non-social enterprise. We, therefore, also make use of the typology of Alter (2004; 2007). Alter (2004; 2007) proposed an adapted continuum where enterprises strive for social sustainability by engaging in business activities at different levels on a continuum from a traditional non-profit organization, a non-profit with income-generating activities, and SEs. Table 2 further elucidates how the EMES framework, and the social sustainability of Alter (2004, 2007) are combined to classify CFEs along a continuum.

Alter (2004; 2007) proposed an adapted continuum where enterprises strive for social sustainability by engaging in business activities at

Table 1

Emergence des Entreprises Sociales en Europe (EMES) three-dimensional framework for identifying SEs (Defourny and Nyssens, 2012).

Dimension	Indicator	Explanation
Economic and entrepreneurial dimension	A continuous activity producing goods and/or selling services	This criterion requires that SEs should be involved in the provision of services or production of goods continuously, and this should be one of the key reasons for the existence of the enterprise.
	A significant level of economic risk:	Enterprise creation comes with risk, members, and workers of the SEs most assume the risk and make efforts to ensure the financial and social viability of the enterprise.
	A minimum amount of paid work:	SEs can combine monetary and non-monetary resources as well as paid and unpaid labor, however, there should be a minimum amount of paid labor.
Social dimension	An explicit aim to benefit the community:	Production and commercialization of goods and services should be to serve the community and promote social responsibility at the local level.
	An initiative launched by a group of citizens or civil society organizations:	The enterprise should be the outcome of a collective dynamics of members with a clear aim or need that should be maintained over time.
	A limited profit distribution	SEs are not profit-maximizing organizations, thus there should be limited distribution of profits, profits are invested in social projects that benefit the whole community.
Governance dimension	A high degree of autonomy	SEs should not be managed directly or indirectly by the public or other organizations but autonomously by the members who constitute the SE.
	A decision-making power not based on capital ownership	Decision-making should be “one man, one vote” or a decision-making process not based on share capital.
	A participatory nature, which involves various parties affected by the activity:	There should be representation and participation of stakeholders in the management

Table 2

Combined EMES approach and social sustainability continuum.

EMES dimensions	Social sustainability		
	Traditional Nonprofit	Nonprofit with income-generating activities	Social enterprise
Economic and entrepreneurial dimension	Depend on external funding or self-generated funds	Revenue from donors and sales of products or services	Use innovative market approaches with discipline and determination to generate profits
Social dimension	Founded for social value creation	Founded for social value creation	General social impact by solving social problems or market failure
Governance dimension	Stakeholders at the center of governance structure	Stakeholders at the center of governance structure	Effective stakeholder participation and engagement in governance

different levels on a continuum from a traditional non-profit organization, a non-profit with income-generating activities, and SEs. Traditional non-profits are defined by Alter (2004) as organizations that depend totally on grants and external funding to meet their social aims. Non-profits with income-generating activities are organizations with commercial revenue generation embedded in their operations to meet their social aim, however, revenue from the commercial activity is relatively small compared to their total budget. SEs are defined as businesses created for a social purpose that use innovative business approaches coupled with determination and financial discipline to generate funds for the sustainability of their ultimate social purpose. They are characterized by a strong social mission, a full business-minded approach, and social or community ownership of the enterprise. The EMES three-dimensional approach is used to classify CFEs on this continuum proposed by Alter (2004).

Based on these frames, the research questions underlying this research are:

- (i) How do CFEs in Cameroon score on the different EMES dimensions and indicators?
- (ii) Based on these scores, which types of CFEs (traditional nonprofit, nonprofit with income generation, and SE) can be distinguished?

3. Methodology

3.1. Research approach

This study was conducted as part of a research and development project called “DRYAD: Financing Sustainable community forest enterprises in Cameroon” (World Agroforestry Centre, 2015). Data used in this paper is part of a large dataset collected at different periods of the Dryad project lifespan (2015–2020). It addresses CFE governance, the inclusion of women and indigenous groups, typology of enterprises and income-generating activities developed by the CFEs, and the social, economic, and governance contributions of these enterprises. Information on the context and history of the CFEs was collected for contextual understanding (Danks, 2009). This generated information on the overall progress towards meeting defined goals of the CFEs, with a clear narrative explaining progress and key obstacles to progress.

As of 2017, about 493 communities had started the process of obtaining a community forest. Only 284 of these CFEs had an approved management agreement (MINFOF, 2017), of which 60 of these had a revised Simple Management Plan (SMP) (Minang, 2019). By 2019, only 375 CFEs had a valid management agreement, and the number of CFEs with a revised SMP reducing to 41 (GFW, 2019). Minang (2019) attribute this reduction to the lack of funds, knowledge, and institutional

capacity of communities to generate revenue from forest resources and proceed with procedures. Over 85% of the CFEs in Cameroon are in the East, Littoral, South, Centre, and South-West regions of Cameroon (Minang et al., 2017), largely because these regions have significant forest cover. CFEs can develop businesses based on timber, non-timber forest products (NTFPs), agriculture, aquaculture, and tourism, with different teams managing different products (Piabuo et al., 2019). These production activities can generate paid jobs for community members, provide income for employees (Minang et al., 2017; Piabuo et al., 2019). In total, 38 CFEs participated in the study (see Fig. 1 for an overview of the sampled CFEs). To ensure that only CFEs operating legally are considered, the following criteria were used to sample CFEs: (i) CFEs should have a revised SMP, (ii) CFEs exploiting timber should have an annual exploitation permit, (iii) CFEs Exploiting non-timber forest products should have a certificate of origin. Of the 41 CFEs with a revised SMP, three were not included for security reasons emanating from the socio-political crisis in the South-West Region, thus this represents 92% of the eligible population, thus, very representative, and higher than previous studies such as those of Ezzine de Blas et al. (2011) and Cuny (2011) who used 20 and 06 CFEs as case studies respectively.

The area of CFs in the Centre region varied between 1700 and 5000 ha, with a mean of 4214 ha. The average area in the East, Littoral, South, and South-West regions was smaller due to the dominance of protected areas. As Table 2 shows, the average population of the communities varies, the mean and median population per community were higher in the Centre and South-West regions contrary to South, Littoral, and East regions with lower population density. Table 3 provides a summary of the sampled CFEs in terms of size (ha), population, and legal status.

Population size in the communities harboring CFEs varies widely, some villages, for example, Bopo in the littoral region, is made up of only 99 inhabitants. This is due to the high emigration of youths to towns for

better jobs. Other CFEs cover many communities, for example, MBACOF CF covers four villages (Ediengo, Mboka, Ekenge, and Afirkpabi) with about 14,019 inhabitants. Although only a few CFEs are organized as cooperatives, the cooperative legal form is being promoted by scholars and the Organization for the Harmonization of Business Law in Africa (OHADA) as the best legal form (Sacconi and Ottone, 2015; Gning and Larue, 2014), because it allows members to run their affairs collectively and democratically.

3.2. Data collection

Between May 2017 and June 2018, data were collected within 38 CFEs using a three-step data collection process: (i) review of CFE documents, community history, and CFE related files to understand the CFE, (ii) focus group discussions with CFE management and community members, and (iii) individual interviews. This was done to avoid self-selection bias and the desire to have an objective and transparent process, self-evaluation during FGDs with CFE management and CF management committee was confronted with an evaluation of youths and women from the community. This triangulation of information through separate FGDs permitted the research team to have a clear and concise picture of the community and understand dynamics between different social groups. To ensure clarity, information collected from these FGDs was triangulated with individual interviews of members randomly selected from the community. Table 4 summarizes information about the data collection process.

- (i) Review of CFE documents: Secondary data sources such as annual enterprise activity reports, minutes of CFE meetings, contracts with partners, and other legal documents (waybills, annual exploitation permits and environmental impact notice, finance

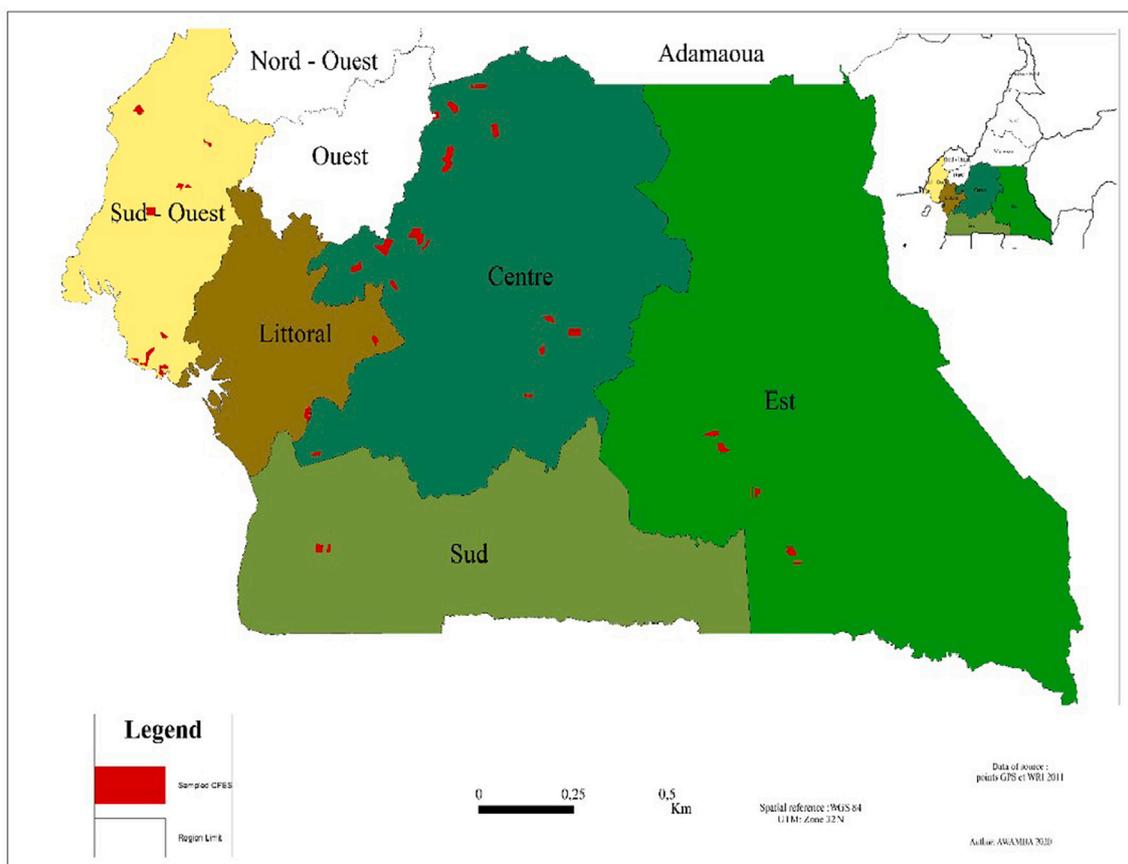


Fig. 1. Sampled CFEs in five regions of Cameroon.

Table 3
Summary data on sampled Community Forest enterprises (CFEs).

Key characteristics of CFEs	Parameters	Centre (n = 18)	East (=6)	Littoral (n = 4)	South (n = 2)	South West (n = 8)
Size of CF (ha)	Range	1700–5000	1300–5000	2682–4192	1400–3450	957–5000
	Mean	4214	2853	3818	2425	3099
	Median	5000	2662	3859	2425	3445
Community population (Number)	Range	300–5000	102–1861	99–332	300–600	308–14,019
	Mean	1312	548	253	450	3936
	Median	1150	230	329	450	2750
The legal status of CFE	Common Initiative Group (CIG)	14	2	3	2	1
	Association	4	4	1		6
	Cooperative Society					1
Share of CFEs with a revised SMP	% Of total CFEs	20%	60%	36%	36%	8 0%

Table 4
Summary information data collection process.

Data collection tool	Number of per CFE	Total number of participants	The objective of data collection	Sampling method
Focus group discussions: CF management committee and CFE manager	38	250	Understand CFE activities, economic, social, and governance contribution. Thus, key CFE actors are required.	Purposeful sampling
Focus group discussions: Youths	38	236	Understand CFE activities, economic, social, and governance contribution, also understand extend of youth engagement.	Purposeful sampling for youths part-time or full-time employees and voluntary participation for other youths from the community
Focus group discussions: Women	38	230	Understand CFE activities, economic, social, and governance contribution, also understand extend of women engagement.	Purposeful sampling for women part-time or full-time employees and voluntary participation for other women from the community
Focus group discussions: Indigenous groups (Bedjang and Baka)	2	17	Understand CFE activities, economic, social, and governance contribution, also understand extend of indigenous engagement.	Purposeful sampling for indigenous people part-time or full-time employees and voluntary participation for other community members
Key informant interviews	1	3	In case of conflicting information from different FGDs, key informants are consulted for more clarity. Such cases were required only for three CFEs.	Purposeful, based on information required
Individual interviews	15	570	Randomly selected to triangulate information collected from FGDs and key informant interviews.	Random sampling with the representation of youths, women, and indigenous groups
TOTAL		2019		

records, and minutes of meetings) were collected during field visits to CFEs. Purposeful content analysis was used to review CFE documents and triangulate information on the indicators reported during FGDs. These documents provide insights into operations of the CFE, income generated, sources, and use of income. CFE records indicated the employment created through CFE activities, salaries paid to employees, and the engagement of CFE with other partners. Minutes of meetings indicated the frequency of meetings, participation of social groups, and implication for women and youths. These documents were reviewed to triangulate information from focus group discussions.

- (ii) Focus group discussions (FGDs): Three FGDs in each CFE were conducted to understand different stakeholder groups CFEs activities, management, economic, social, and governance outcomes of CFE activities. To facilitate access of the research team to communities, the village chief was first informed of the objectives of the study, the chief then introduced the team to the community and indicate knowledgeable members within the community on CFE affairs to work with. Different members of the CF management committee were also invited. The snowball technique was also used to find other community members which permitted the formation of heterogeneous groups. In most FGDs participants had opposing views which suggests absence of self-selection bias. The research team was made up of experienced facilitators who controlled for self-selection and ensured different voices were heard in the FGD. To ensure open expressions of opinion, three separate focus groups per community were used:

1. FGDs with CFE managers and members of the CFE management committee: this permitted to have information from management on their activities, actions, and reasons for their actions.
2. FGDs with women and youths from the community: This group was made up of women and youths who are members of the community. It permits to give community perception and evaluate if the information is at the same level between different groups.
3. FGDs with indigenous groups (in that village with indigenous groups present, such as the Baka in the East and the Bedjang in the Centre region): These FGDs was also used to capture the level of engagement of indigenous groups in CFE activities and match outcomes of FGDs with CFE management and views of indigenous groups.

Questions were asked on CFE economic activities (Timber exploitation, NTFPs, Agriculture, conservation), expenditures and revenue over the past 5 years, employment created and wages, social objectives, social projects realized, profit distribution scheme, level of autonomy in management, participation of community members, decision-making mechanisms and role of women, youths, and indigenous. CFE documents such as annual reports, waybills, partner contracts minutes of meetings were used as proof for cross verification.

- (iii) Individual interviews: Three key informants interviews (the village chief of Ngoume, a former delegate of CF, and a/the leader of Bedjangs indigenous group) were conducted to clarify issues that were not clear from the FGDs. A further 15 interviews were held with people from the community for each CFE. These people were randomly selected and willingly accepted to participate, with at least 40% of the interviewees being women. This was

done to triangulate information and see if the information provided during the FGDs and key informant interviews were coherent with the views of other community members. CFE members were interviewed to understand community knowledge of CFE activities, social problems they expect CFEs to resolve with profits from the enterprise, and their perception about CFE management. This allows for a better understanding of the phenomenon and a review of the degree of information flow within the community and an appreciation of community engagement in the CFE decision-making process.

3.3. Data analysis

Building on the EMES ideal type of SEs (Defourny and Nyssens, 2012), a Likert scale of 1–5 was used to score each of the three dimensions and the nine indicators. This list of indicators formed an important input for the FGDs. The definition of scores for each indicator was explained to the focus group participants. Individual interviews and review of CFE documents were used to triangulate information reported in FGD. Table 5 shows the definition of scores and evaluation variables for the CFE dimensions.

Based on the scores provided by the focus group participants and the additional data collected via interviews and document review, a cluster analysis was carried out. Cluster analysis permits the classification of cases in groups that are very homogenous amongst themselves and heterogenous between each other based on a set of variables (Churchill and Iacobucci, 2015). Cluster analysis was used to group CFEs with similar characteristics as per the EMES indicators along the continuum of Alter (2004). CFEs, where participants agreed or strongly agree that they meet all EMES dimensions, are considered as SEs, those that partially agreed were rated as non-profit organizations with income-generating activities, and participants that disagreed that their CFE met all dimensions are rated as traditional non-profit organizations. Clustering allows a better understanding of patterns within the continuum. The K-means clustering technique was used because of its conceptual simplicity and computational speed (Kaushik and Mathur, 2014), using the Statistical Package for Social Science (SPSS) version 26. Cluster analysis was done for 2, 3, and 4 clusters; the gap index proposed by Tibshirani et al. (2001) was used to determine that the analysis with 3 clusters maximizes the statistical gap and is thus more robust in regrouping CFEs along the continuum of Alter (2004). Euclidean distances between cluster centroids were used to see how different the clusters are.

4. Results

4.1. Overview of CFEs scores on different EMES dimensions and indicators

To view CFEs from the different dimensions, consolidated scores based on triangulated information from document reviews, FGDs, and interviews are used. The scores show that CFEs are at different levels of economic, social, and governance development, the details for each of these dimensions are discussed below.

4.1.1. Economic/entrepreneurial dimension

Fig. 2 provides an overview of the scores for the economic/

Table 5

Definition of scores.

1	2	3	4	5
Strongly disagree	disagree	Partially agree	agree	Strongly agree
CFE meets indicators				

entrepreneurial dimension of all the CFEs that were included in this research. As this figure clearly shows, four CFEs (CFE1, CFE2, CFE19, CFE9) score an average of four for the three indicators of the economic/entrepreneurial dimension. This score indicates that these CFEs have been in continuous production, they take economic risk and have a minimum amount of paid labor. Sub-contracting of timber exploitation has been their main source of income, community members were employed as workers by partner companies and by the enterprise during inventory. These activities created some economic dynamism in these communities which led to spillover effects on other sectors such as village restaurants. For example, CFE1, a timber enterprise made revenue of 10997742XAF (\$19,180) over 12 months. The CFE equally created jobs for 87 people with an estimated 1115 man-days with \$3648 paid in wages. Out of the man-days created in the last year, 55% were taken up by the youth, and only 25% were taken up by marginalized communities.

More than twenty CFEs recorded an average score of three, which indicates that FGD participants partially agree meeting EMES indicators on the economic/entrepreneurial dimension. These CFEs have not been in continuous production for two or three years in the past five years. Income was not continuous over five years because partners did not meet agreements and the community could not afford inventories to renew legal documents for timber exploitation. For example, CFE25 exploited timber in 2015 and generated revenue, and CFE23 generated \$11,322 from payment for environmental services (PES) in 2017, which generated 88 jobs with an estimated 5417 man-days and \$1327 paid in wages. Out of the man-days created 71.4% were occupied by youths and 26.6% by women. Timber exploitation by CFE28 generated 950000XAF (\$1657) over 12 months and created five jobs worth 142 man-days of which a total of 244500XAF (\$426) was received as wages by employees. CFE30 was engaged in tree planting and eco-tourism. CFE31 was engaged in the exploitation of *Prunus africana* and timber.

About ten CFEs score on average below 3, these CFEs have not generated income from the trade of forest products or services, they depend only on grants. Therefore, no jobs have been created since creation, and they had limited or no initiatives from community members and thus recorded an average score of two, which indicates they do not meet any of the economic/entrepreneurial indicators. For example, CFE26 attempted timber exploitation in 2016, however, their business partner did not harvest due to technical difficulties and the CFE did not generate revenue. As road access to CFE27 is very difficult, business partners perceived transaction costs to be too high, which resulted in no economic activities since the CFE's creation.

4.1.2. Social dimension

CFEs do business to meet their principal social aim, which in most cases is to improve the social wellbeing of the community through the provision of social amenities to community members (Piabuo et al., 2019). Fig. 3 provides an overview of the scores of the CFEs on the three criteria of the framework, and the average score on the social dimension.

In total, four CFEs score high on the social dimension with an average score of four or higher (CFE1, CFE2, CFE19, and CFE9). These CFEs score high on all three social criteria and have made significant strides in community development. CFE1, for example, constructed a kinder garden and continuously ensure the management of two community wells, pay the salary of three primary teachers, support the old and sick in the community, pay the salary of a community nurse, distribute cocoa seeds to community members and provide financial support to best students from the community (Minang et al., 2017). Another example, in the East region, is CFE19, which contributed socially through the amelioration of houses (purchase of roofing sheets), purchased solar panels, purchased community bricklayer, pays the salary of a community teacher, support 17 old people financially to the tune of \$58 per person per year. Next to that, all women were supported financially to buy inputs for agricultural activities (\$698) and two churches were constructed.

CFEs that recorded an average score of three on the social dimension,

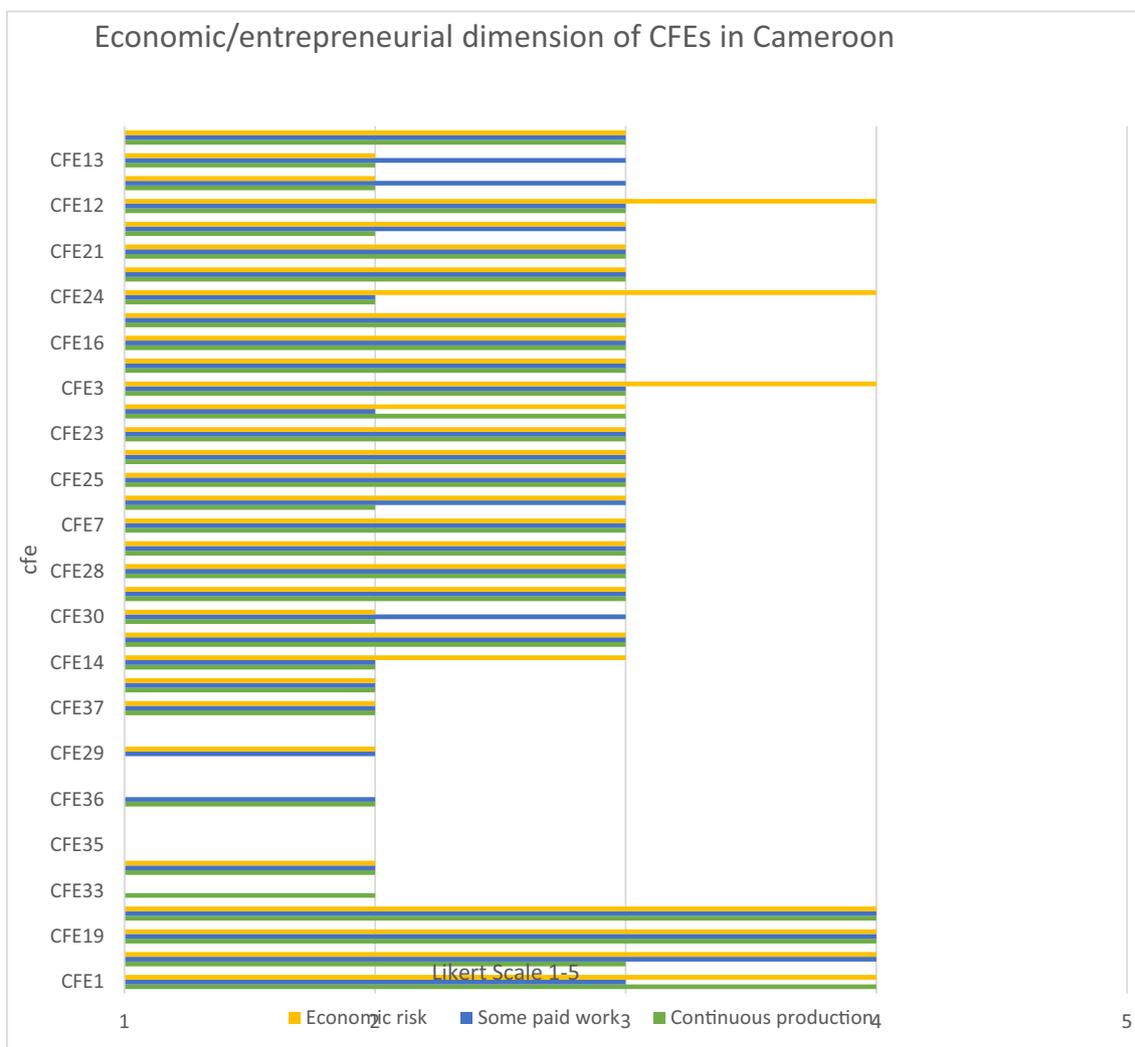


Fig. 2. Economic/entrepreneurial dimension of CFEs in Cameroon.

indicated they only partially meet this dimension. These CFEs have contributed to community development when they have been able to raise funds through business activities or grants. For example, CFE28 contributed to the social development of the community by purchasing chairs for the village hall and paying the annual salary of community teachers. CFE25 used revenue from timber exploitation to construct three community wells, a health center (uncompleted), and connect the village to the electricity grid. CFE8 used timber revenues for community development by constructing a nursery school and paid the salary of three teachers. CFE12 contributed to the construction of a nursery school and paid the salary of three teachers. Although these CFEs have not been in continuous production, they contributed to community development. These social projects were however criticized as minimal, conducted to cover up mismanagement, but show that community forestry can generate wider societal benefits (Minang et al., 2017). About ten CFEs could not generate revenue through income-generating activities and had limited grants for community development, thus they scored very low on the social dimension averaging a score of two.

4.1.3. Governance dimension

Fig. 4 presents the scores for all CFEs on the governance dimension, Four CFEs (1,2,19, and 9) recorded an average score of four for all the governance indicators. This is because the continuous production of goods and services within these communities enhances community interest, thus increases participation and implication of community in

decision making. It also increases overall accountability because community members are interested in community forestry affairs and thus push leaders to be accountable. The success of these CFEs hinges on the governance framework within the community. They succeeded in developing effective and inclusive CFE governance frameworks, which enhanced economic and social performance. The governance framework in these communities is anchored on the autonomy of CFEs in managing their affairs without external influence (elite capture), participation of different social groups of the community, and one-man-one-vote decision-making indicators based on stakeholders, not shareholders. The management team of these CFE is constituted based on the capacity of members to manage the affairs of the enterprise. The community governance structure requires that the management committee defines the orientations of CFE management in the special interest of the community and the implication of different social groups (women, men, and indigenous groups) in decisions regarding CFE operations. The profits generated by the CFEs are used to finance different community projects voted by community members during a general assembly. For example, CFE1 made it a rule to include women and the indigenous Bedjang community in the management committee and management team of the enterprise. (See Fig. 4.)

As Fig. 5 illustrates, the majority (twenty-four) of the CFEs record an average score of three on the key governance indicators. These CFEs have had intermittent income-generating activities and thus have some level of community interest in decision making, participation, and

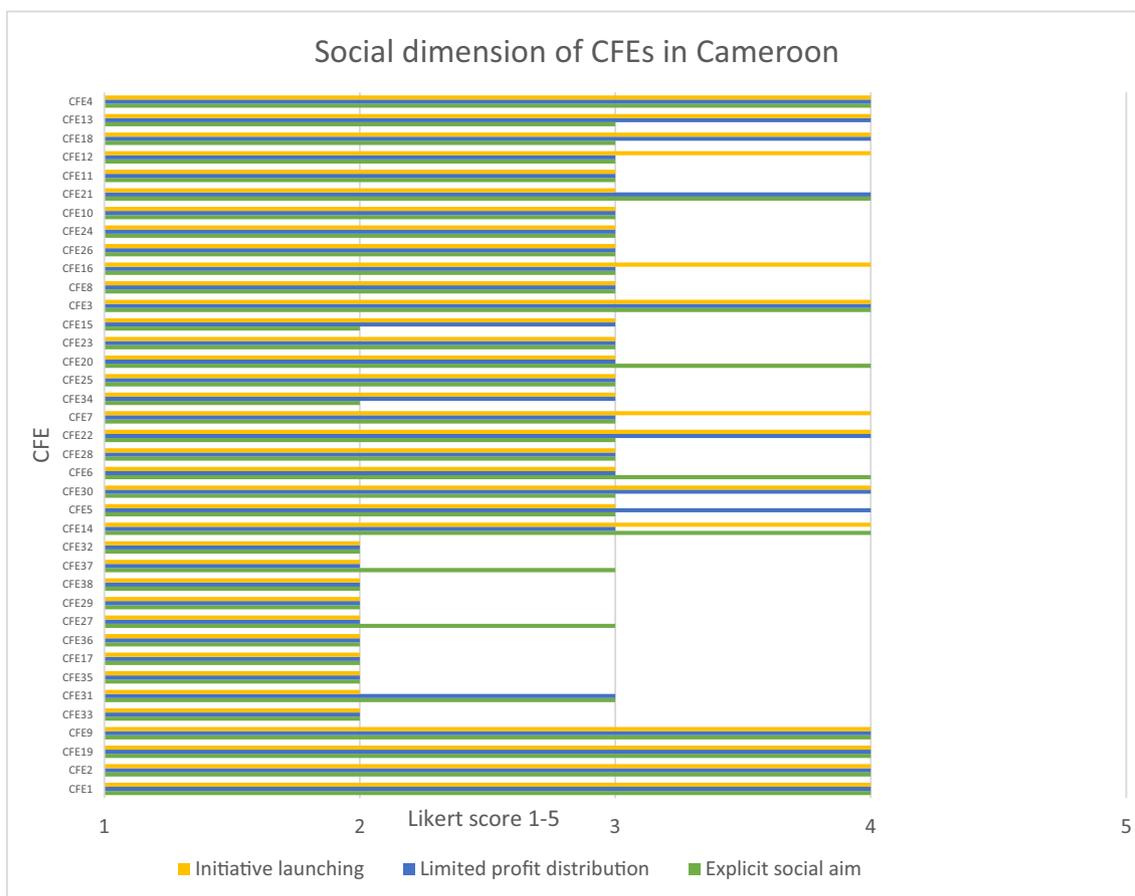


Fig. 3. Social dimension of CFEs in Cameroon.

autonomy in management. Due to a lack of continuous income-generating activities, youths are not often engaged in CFE activities and decision making, they prefer to engage in other activities that can provide a consistent source of income. This is also the case with the CFEs with even lower scores (33,31,35,17,36, 27,29,38 and 37). These CFEs find it difficult to engage youths, women, and indigenous groups because community benefits are not forthcoming as expected, thus community members are discouraged. One of the reasons for the low participation of some social groups in CFE governance is also the dominance of timber enterprises; women are not often interested because they believe timber exploitation is a male activity.

4.2. Clustering of CFEs

To classify CFEs along the continuum of Alter (2004), CFEs were grouped based on their similarity; the average silhouette value was used to determine the number of clusters. The average silhouette value is highest for two clusters; however, it does not appropriately discriminate the sample, an average value of 0.5 was noted for three clusters, however, when the number of clusters was increased to four and five, the value did not change, suggesting three clusters discriminates the sample better. Thus, three clusters were retained for this study. This confirms the views of Alter (2004, 2007) that enterprises are not always situated at both extremes of the SE continuum but along a continuum (see appendix 2 for distribution of clusters). The CFEs are at different levels of a continuum that strives for social sustainability by applying business approaches that ensure financial viability.

Cluster 1 is a group of CFEs that score high, i.e., > 4 on the Likert scale, on all the dimensions of SEs, hence they can be classified as "social enterprise" Community members in FGD generally agreed that their CFE meets all the indicators for economic/entrepreneurial, social and

governance dimensions. These CFEs have been in continuous production most of their lifespan and have been generating revenues while applying good governance principles to deliver on their social aims.

Cluster 2 represents a group of CFEs that scored low (≤ 2) for almost all the indicators due to different forms of deficiencies in meeting the economic/entrepreneurial, social, and governance dimensions. They are thus termed "Traditional non-profit" because they do not meet any of the dimensions of SEs. This is principal because they have not been in continuous production and are often characterized by governance challenges arising from a lack of social benefits (Duguma et al., 2018, Piabuo et al., 2018). They depend on grants and external support, which are not always available, thus the social and governance aspects are low due to the low economic/entrepreneurial dimension.

The third cluster, called "Non-profit organizations with income-generating activity", are CFEs that did not fully meet all the indicators for economic/entrepreneurial, social, and governance dimensions; they have had intermittent income-generating activities. They do not integrate a full business approach and thus do not qualify as SEs. This is principal because they still have poor governance systems, lack funds or partners, did not continue activities, or could only operate income-generating activities on an intermittent basis. Table 6 further gives details characterizing the different clusters. (See Table 7.)

Differences between these clusters are shown by the scores of the EMES indicators and by the Euclidean distances between the final cluster centroids (appendix 1). The distance between clusters 1 and 2 is highest, more than twice the distance between cluster 2 and 3. This shows how heterogeneous the clusters are, which is also confirmed by the differences between the mean scores for the different indicators. The big difference between clusters 1 and 2 is because they are at the extremes of the continuum, whereas cluster 3 is in the middle. On one end of the continuum, cluster 1 CFEs are operating effectively with innovative

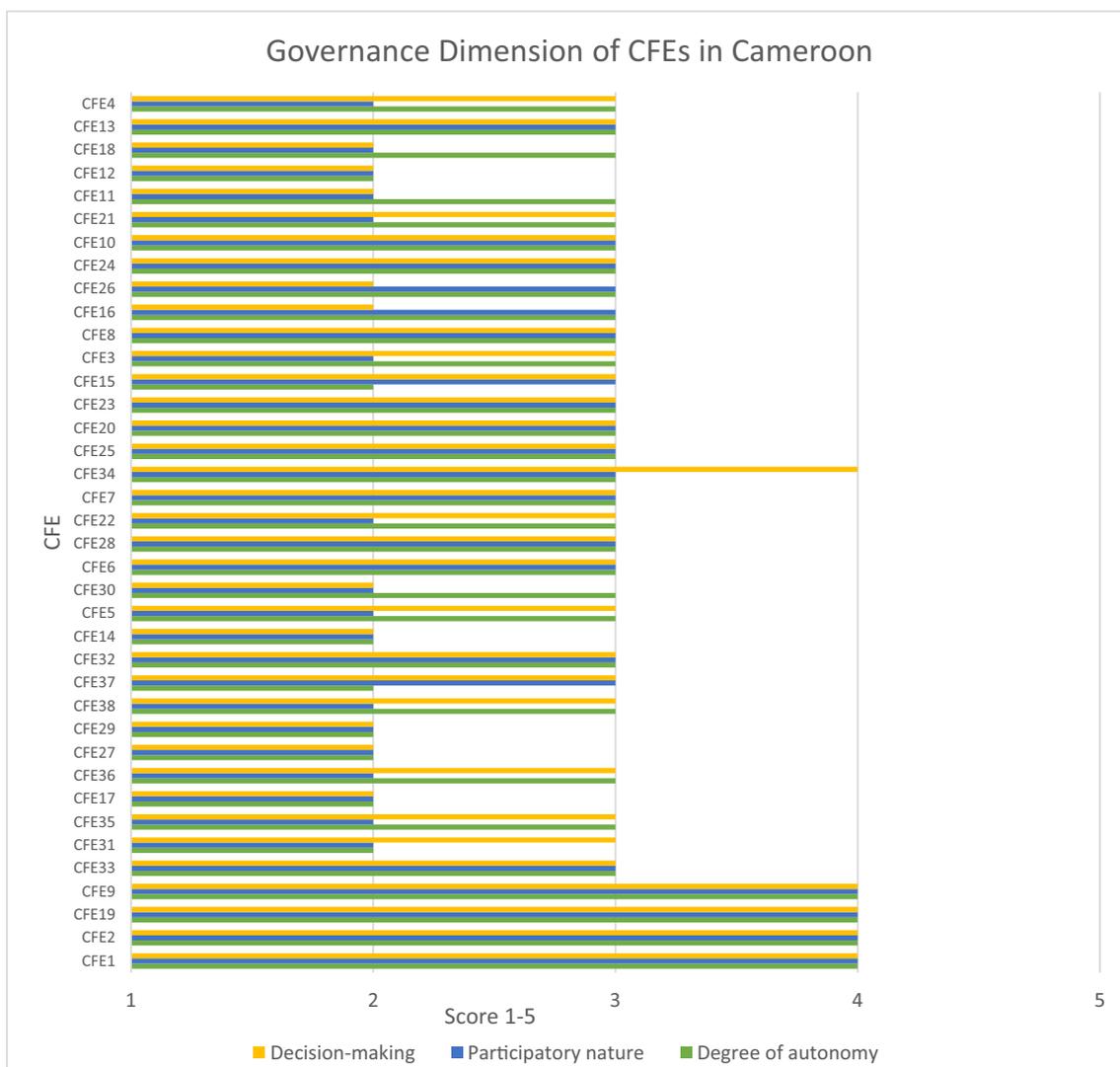


Fig. 4. Governance dimension of CFEs in Cameroon.

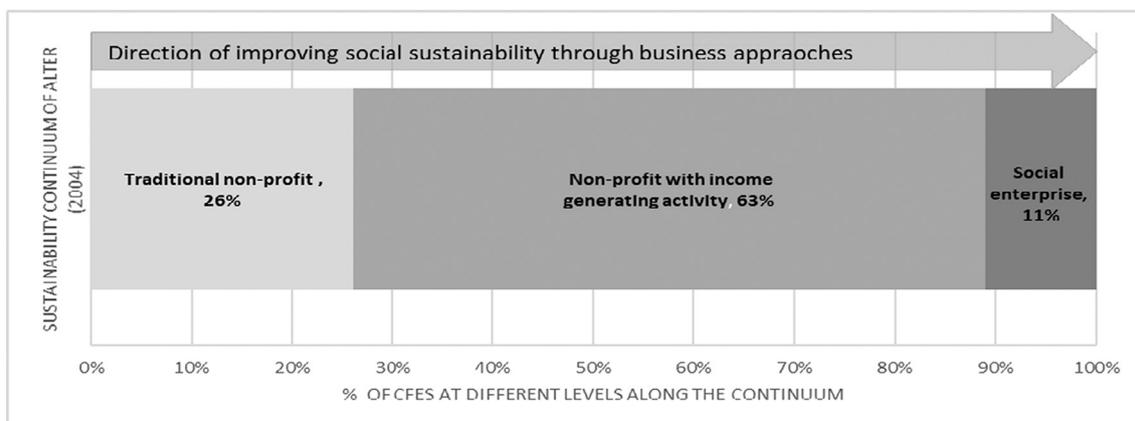


Fig. 5. Distribution of community forest enterprises in Cameroon along the continuum of Alter (2004).

business strategies that continue to generate revenue for their social aim. On the other end, cluster 2 enterprises rely more on grants and external funding to meet their social aims; in most cases, they do not employ business approaches to meet social aims.

The analysis of variance, shown in Table 6 indicates the variables

accounting for these differences between clusters. The economic/entrepreneurial, social dimensions, and governance dimensions contribute significantly to differences in clusters, which can be seen by the significant F-statistics for all the indicators. The indicator of continuous production and economic risk contribute the most to

Table 6
Characteristics of clusters.

	Economic/entrepreneurial dimension			Social dimension			Governance		
	Continuous production	Some paid work	Economic risk	Explicit social aim	Limited profit distribution	Initiative launching	Degree of autonomy	Participatory nature	Decision-making
Cluster 1: "social enterprises"									
Mean	4	4	4	4	4	4	4	4	4
Standard Error	0.3	0.3	0.3	0	0	0	0	0	0
Minimum	3.00	2.00	3.00	4	4	4	4	4	4
Maximum	4.00	4.00	4.00	4	4	4	4	4	4
Cluster 2: "Traditional non-profits"									
Mean	2	2	1	2	2	2	2	2	3
Standard Error	0.2	0.2	0.2	0.2	0.1	0	0.2	0.2	0.2
Minimum	1.0	1	1	2.0	2.0	2.0	2.00	2.0	2.0
Maximum	2.0	2	2	3.0	3.0	2.0	3.00	3.0	3.0
Cluster 3: "Non-profits with income-generating activities"									
Mean	3	3	3	3	3	3	3	3	3
Standard Error	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Minimum	2.0	2.0	2.0	2.0	3.0	3.0	2.0	2.0	1.0
Maximum	3.0	3.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0

Table 7
Analysis of variance (ANOVA) analysis.

ANOVA						
Dimensions of SEs	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Economic and entrepreneurial dimension						
Continuous production	8.65	2.00	0.24	35.00	36.87	0.00
Some paid work	8.57	2.00	0.18	35.00	48.97	0.00
Economic risk	11.70	2.00	0.26	35.00	44.76	0.00
Social dimension						
Explicit social aim	4.77	2.00	0.27	35.00	17.70	0.00
Limited profit distribution	7.27	2.00	0.18	35.00	40.79	0.00
Initiative launching	9.88	2.00	0.19	35.00	52.52	0.00
Governance dimension						
Degree of autonomy	3.23	2.00	0.15	35.00	22.04	0.00
Participatory nature	3.08	2.00	0.25	35.00	12.41	0.00
Decision-making	2.34	2.00	0.48	35.00	4.91	0.01

distances between clusters with the highest F-values of 8.65 and 11.70, respectively. This is because most of these CFEs have not been in continuous production year in, year out and the level of economic risk taken by community members differs significantly due to the exposure of the leadership team and support to CFEs by NGOs (Piabuo et al., 2019).

The indicator of limited distribution of profits (7.27) and initiative launching (9.88) accounts the most for differences between clusters for the social dimension. The degree of autonomy and participatory nature of CFEs are the key governance indicators accounting for differences between clusters. The influence of elites and low participation of some social groups such as youths, women, and indigenous groups are key reasons for these differences.

5. Discussion

As this research shows, most CFEs of our study are not engaged in continuous production of goods and services and thus do not meet one of the key descriptions of SEs (Thompson and Doherty, 2006; Boschee, 2001; Fowler, 2000). Alter (2004, 2007) contends that organizations with income-generating activities can be classified as SEs if they apply

full business approaches in their operations. To employ a full business approach, CFEs must employ market approaches, strategic product/service orientation, cost-benefit analysis with an entrepreneur mindset. Although most CFEs in Cameroon have income-generating activities, they score low on the economic/entrepreneurial dimension. One main question emerges from this study, what explains the inability of these CFEs to fully applying business approaches in their operations?

Possible reasons for the low economic/entrepreneurial scores is first of all that CFEs in Cameroon relied too much on and put too much trust upon timber operating partners to generate incomes, receiving very low prices in comparison to market prices (Foundjem-Tita et al., 2018, Mbile and Macqueen, 2019). Secondly, as some CFEs are rather small and/or possess already intensively used forests, this makes CFEs less attractive for timber companies (Mbile et al., 2009). A third reason could be the high transaction cost involved, which are mostly due to bad roads and encroachment of some communities (Foundjem-Tita et al., 2018). Furthermore, lack of entrepreneurial experience makes it even more difficult for CFEs to explore other forest resources to develop profitable CFEs around them.

Key governance indicators such as participation, representation, and benefit-sharing vary significantly amongst CFEs that have been receiving technical support turn to score higher on governance indicators contrary to CFEs with little technical support (Piabuo et al., 2018, Duguma et al. 2018). High rates of participation have also been recorded in CFEs with benefit-sharing resulting from CFE activities, thus CFEs in continuous production and community development record better scores on governance (Duguma et al. 2018). Just like the governance dimension, high scores for the social dimension are associated with profit-making CFEs, because profits are used to meet social aims. However, issues of social exclusion of indigenous groups, inadequate between profits and social development have been reported in some CFEs (Eloundou, 2012; Maffo and Bokkestijn, 2015).

These compounding issues faced by CFEs in Cameroon have been reported also in other developing countries like Nepal and Mexico (Xu and Hyde, 2018; Ambrose-Oji et al., 2015). However, these studies did not use the EMES framework to classify CFEs along a continuum. Thus, problems were generalized for CFEs at different levels along the continuum, which do not reflect the severity of problems at different stages. The use of the SE lens in this study permits the contextualization of solutions to CFEs based on their positions along the continuum. The dominance of non-profits with income-generating activities calls for possible interventions that will enhance the business dimension of CFEs. Technical support in business development and governance can

potentially enhance the economic, social, and governance dimensions of CFEs. Foundjem-Tita et al. (2018) posit that rural communities were given access and the right to manage and run community businesses to resolve social problems of their communities, but were not given the necessary capacity support to develop and manage community businesses. Community capacity in exploiting innovating investment opportunities such as payment for ecosystem services (PES) especially for dense forest-rich land-locked communities can help propel CFEs towards social sustainability.

Also, entrepreneurship education can be a reliable option to promote CFEs in Cameroon. Community business management educational centers can be promoted as platforms for developing entrepreneurial skills, training on business management, and community development. This will involve developing community capacity to innovate and take risks. Innovations and risk-bearing capacity can be enhanced by helping communities diversify revenue streams through the exploitation of other forest resources and exploring more profitable aspects of value chains (Mbile and Macqueen, 2019).

At the policy level, the devolution of forest management rights to local communities was aimed at improving participatory forest management, sustainable forest management, and livelihood of neighboring forest communities (Cuny et al., 2007; Minang et al., 2017). The 1994 forest law and the 1995 law of application gave rural communities the rights to develop and manage community businesses, the profits from these businesses are to be used for community development. However, appropriate incentives for community business incubation is lacking. Local forest administration mandated to support forest communities lack the business capacity to support communities in enterprise development. Lack of sectorial coordination between the ministry of finance and the ministry of forestry on taxation for CFEs that effectively operate as SEs makes application of existing incentives to the CFE sector difficult. Thus, sectoral coordination from the ministry of finance, forest and wildlife, small and medium-sized enterprises, and rural development can significantly accelerate the development of the sector.

6. Conclusion

By exploring if CFEs in Cameroon can be classified as social enterprises, we examine how CFEs scores on the different EMES dimensions and indicators. Building on the scores from EMES indicators we classify CFEs along the continuum of Alter (2004) which ranges from non-profits through non-profits with income-generating activities to SEs. We argue that CFEs are evolving at different stages along a continuum of social sustainability through financial viability, thus they are at different stages of development along this continuum. Thus, using the SE lens in viewing CFEs and classifying CFEs along a continuum provides new insights into CFE development and provides path-specific options for developing CFEs as SEs.

Only 11% of the 38 CFEs qualified as SEs. These enterprises are operating businesses that meet their social goals continuously, characterized by strong social and governance dimensions. The majority of the CFEs (63%) are classified as non-profit organizations with income-generating activities, they do not operate continuously or sought to generate income other than through grants, they do not employ full

business approaches in their activities. This study shows that for the majority of CFEs, except those classified as SEs, the business dimension is weak. CFEs rely mainly on sub-contracting timber exploitation for income, communities that are not rich in high-value timber species or not accessible by road have difficulties in finding business partners and thus remain inactive. CFEs are classified as “social enterprises” along the continuum that had previous experience with timber exploitation and through this, they have organized their entrepreneurial/economic, social, and environmental dimensions. However, the development of CFEs other than timber is new to most CFEs and most of these CFEs are classified as “ non-profits with income-generating activities” along the continuum because they are not yet applying full business approaches in their income generation activities.

For these CFEs to move from “non-profits with income-generating activities” to SEs, several viable options have been proposed for developing CFEs as SEs. The first is a change in mindset as timber is not the only marketable resource within CFs and viable CFEs can be developed around other forest resources such as NTFPs, agriculture, aquaculture. A second option is to evaluate and build community capacity to develop viable businesses around these value chains and innovate. Thirdly, building capacity for community business governance could strengthen their relations with divergent stakeholders and overall governance. As a fourth option, sectorial coordination between different ministries to support CFEs and set up community business incubation structures might be a way to move more CFEs to the SEs spectrum. Further studies on required community capacity to develop community businesses and how to manage governance tensions, paradoxes and divergent interests in community businesses will help develop appropriate tools for developing CFEs as SEs.

Funding

This work was supported by the Department for International Development (DFID) within the framework of a 05-year funded project (2015-2020) in Cameroon called Dryad”Financing community forest enterprises in Cameroon”.

Declaration of Competing Interest

The authors declare that they have no competing interests.

Acknowledgments

This paper builds on a UK Aid Department for International Development (DFID) funded project “DRYAD: Financing Sustainable community forest enterprises in Cameroon” research and development project. The authors also thank participants and implementing organizations such as ERuDeF (Environment and Rural Development Foundation), Centre D'appui aux Femmes Et Aux Ruraux (CAFER), Cameroon Ecology (Cam-Eco) and Coopérative agroforestière de la Trinationale (Cameroun) (CAFT) for their support during data collection. The authors acknowledge the support of the CGIAR program, Forests Trees, and Agroforestry (FTA) research program.

Appendix A. Distance between final cluster centroids

Distances between cluster centroids			
Cluster	1 = Social enterprise	2 = Traditional non-profit	3 = Non-profit with income generating activity
1 = Social enterprise	–	5.622	2.803
2 = Traditional non-profit	5.622	–	3.229
3 = Non-profit with income-generating activity	2.803	3.229	–

Appendix B. Distribution of community forest enterprises by clusters

Cluster	Number of CFEs in each cluster	%
1 = Social enterprise	4	11%
2 = Traditional non-profit	10	26%
3 = Non-profit with income generating activity	24	63%
Total	38	100%

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