

Full Length Research Paper

Role of agricultural cooperatives in rural development in the era of liberalization in the North West and South West regions of Cameroon

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The focus of this research was to identify the role played by agricultural cooperatives in rural development in the era of liberalization in the North West and South West regions of Cameroon. Primary sources were used for data collection. Questionnaires were administered to 329 respondents from 52 agricultural cooperatives in 40 villages with a response rate of 78.7% in the North West Region and 21.3% in the South West Region. Agricultural cooperatives and government officials were interviewed in both regions. Findings from the field show that 80% of the respondents agreed that agricultural cooperatives play a role in rural development especially in the areas of trainings, increased output production, the provision of inputs and marketing of farmers produce. Agricultural cooperatives can effectively and conveniently handle only two major roles in its rural development efforts: Improved Agricultural Production and Capacity Building. Seventy percent of the respondents declared that they were satisfied with the role agricultural cooperatives play in rural development despite the socio-political crisis in the study area. The government should increase investments in agriculture and rural infrastructure and create an agricultural bank to enable agricultural cooperatives play its role fully in rural development.

Key words: Agricultural cooperatives, rural development, liberalization, Cameroon.

INTRODUCTION

The agricultural sector in Cameroon is among the main occupations for over 70% of Cameroonians and contributes enormously to the country's economy (Abia et al., 2016) and accounts for 22.9% of the Gross Domestic Product (GDP) (Ball, 2016). About 75% of Cameroon's population live in rural areas and depend on agriculture

as a source of livelihood. According to the third general population and housing census 2010 figures, the rural population of the North West and South West regions which make up the study area is 1,044,236 and 722,199 people, respectively. According to Cameroon's National Development Strategy 2020-2030, agriculture is a major

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component in the structural transformation of Cameroon's economy. Therefore, the performance of the agricultural sector determines the fate of the economy of the country (Birchall and Simmons 2009). Despite this contribution to the economy, the growth of this sector is, however, handicapped by the poor quality and inadequacy of rural infrastructure, constraints related to the financing of production, lack of access to market information, improved technologies, functioning markets (for inputs, outputs, finance, consumer goods, and services) and the remoteness of the production areas in relation to the consumption centres (African Development Bank and African Development Fund, 2009). Farmers can overcome these problems by acting cooperatively to obtain collective strength that they do not have individually, and in doing so, they can find the pathway out of poverty and powerlessness (Birchall and Simmons, 2009). Besides collective strength, farmers also join agricultural cooperatives to have access to trainings, government support, local and international markets, credits and input supply (ATA, 2012). According to Cameroon's National Development Strategy 2020-2030, the government intends to carry out an agricultural revolution. The aim is to modernize the sector, increase its productivity, create jobs and thereby improve living standards, reduce rural poverty by way of increased productivity through intensification of agribusiness activities and modernization of farms driven by the demand of the agro-food industries. Agricultural cooperatives can play a major role in achieving this aim. Cooperatives have been conducting business in a way now being recommended as the most effective route to transformational development (Oluwakemi et al., 2012). This explains why the government is promoting cooperatives in order to facilitate producers' access to inputs, improve agricultural productivity and producers' living conditions. According to Barton (2000) as cited in Ortmann and Kings (2007), Burt (2004) and California Centre for Cooperative Development (2017), agricultural cooperatives, like any other businesses, start with the recognition of a need or an opportunity.

The International Cooperative Alliance (ICA) defines a cooperative as "an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise" (ICA, 2015). This definition is widely accepted because ICA a non-governmental organization with over 230-member organizations from 100 countries is recognized by cooperative leaders around the world as a leading authority on cooperative definition and values (Zeuli and Cropp, 2004). On the other hand, agricultural cooperatives are cooperatives whose members are agricultural producers or involved in agriculture related activities (Nnadozie et al., 2015). According to Rondot and Marie-Helene (2001) and Francesconi et al. (2015),

an agricultural cooperative, which is also known as a farmers' cooperative or agricultural producer organization, is a cooperative where farmers pool their resources in certain areas of activity. They can be single or multiple purpose cooperatives, agricultural input supply cooperatives, marketing cooperatives, agricultural credit cooperatives, machinery cooperatives, land acquisition cooperatives, livestock producer's cooperatives, fishermen cooperative society, oil mill cooperatives, rice mill cooperatives, among others (Nnadozie et al., 2015).

Classical and neoclassical theorists allocate important roles to cooperative associations as depicted in Exhibit 1 herein.

Exhibit 1. Roles of cooperative associations

- 1) Cooperatives occupy niches of market development and integrate them into the overall system of capitalism.
- (2) Cooperatives change the preferences, habits and characters of their members and thereby trigger economic development and social reform.
- (3) Cooperatives manage to exploit local knowledge as an otherwise costly production factor.
- (4) Cooperatives ease the pooling of resources and the buildup of power.
- (5) Cooperatives establish a class of cooperative entrepreneurs and allow this class to remain independent (Nuredin and Byeong, 2005; Markus, 2005)

Furthermore, cooperatives and particularly agricultural cooperatives do play a major role in production, primary processing and marketing of agricultural and livestock commodities. The justification for cooperative arises from their potential in maximization of profits, harnessing various skills with members, enhancing advocacy and bargaining power, enhancing financial accessibility, boosting social capital, promoting investment, providing educational opportunities, improving market access and contributing to poverty reduction (Nuredin and Byeong, 2005; Oluwakemi et al., 2012).

Role in rural development

Agricultural cooperatives have played an important role in rural development through development of agriculture and are considered to be the most important organizations that pay attention and try to support rural development in general and the agricultural development in particular through the activities and services achieved for the sake of farmers (Farshid, 2011; Mohamed, 2004). Ingrid et al. (2018), opine that agricultural cooperatives have the ability to increase smallholder participation in markets and ensure realization of the economic benefits that come with market participation (that is, access/affordability to inputs, finance, knowledge exchange,

access to NGOs, marketing and bargaining power, etc). In recent years, agricultural cooperatives around the world have been promoting a new agenda for rural development and the development of farmer-owned organizations and enterprises. In the 2030 agenda for sustainable development, United Nations Member States recognized the important role of cooperatives, stating that: “we acknowledge the role of cooperatives in the implementation of the new agenda.” The United Nations has also consistently called for the promotion and development of cooperatives as inclusive and socially responsible enterprises with a huge potential for growth (United Nations, 2019). Developments in recent decades have also shown that, although agricultural cooperatives have been affected by many problems (African Development Bank and African Development Fund, 2009), they are still the most relevant organizational form for small and medium-scale farmers (Armando, 2009). It is in this light that The United Nations declared 2012 the International Year of Cooperatives (IYC) to raise awareness of cooperatives’ important contribution to global socio-economic development and to promote the growth and strengthening of cooperatives all over the world.

Cooperatives empower groups

When many people feel powerless to change their lives, cooperatives represent a strong, vibrant and viable economic alternative. The importance of agricultural cooperatives in improving the lives of millions of smallholder farmers and their families cannot be overstated. The three Rome-based United Nations (UN) agencies: the UN Food and Agriculture Organization (FAO), the International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP) said, empowered by being a part of a larger group, smallholder farmers can negotiate better terms in contract farming and lower prices for agricultural inputs like seeds, fertilizer and equipment. In addition, agricultural cooperatives offer prospects that smallholder farmers would not be able to achieve individually such as helping them to secure land rights and better market opportunities (Altman, 2009; Schwettman, 2011; IFAD, 2011). Agricultural cooperatives also offer small agricultural producers’ opportunities and a wide range of services including improved access to markets, credits, support them with farm inputs among others (IFAD, WFP, FAO, 2012; LaSalle, 2012). Under the influence of current trends in market-oriented reform, privatization, decentralization and participation, agricultural cooperatives are currently being rediscovered as a suitable organizational structure for realizing the economic initiatives of farmers. Agricultural cooperatives in which the members both participate and contribute can

thus become powerful instruments for the development of the rural economy (Reitse, 2006). Agricultural cooperatives create a model of self-help community development that support men and women, small agricultural producers and marginalized groups to become informally gainfully employed (Green and Haines, 2002; Flora et al., 2004; Zeuli and Radel, 2005). Agricultural cooperatives offer men and women smallholders market opportunities, and provide them with services such as better training in natural resource management, and better access to information, technologies, innovations and extension services (IFAD, WFP, FAO, 2012; ATA, 2012). Besides, employment, marketing, and training, Sifa (2014) opined that Improved Agricultural Production is the primary purpose of agricultural cooperatives.

Developing smallholder farmers

Agricultural cooperatives are widely considered as vital tools that can help smallholder farmers to overcome the constraints that hinder them from taking advantage of their business as it empowers economically, enhancing their collective bargaining power and thereby reduces the risks that they face in the market (Woldu et al., 2013). The role of agricultural cooperatives is very significant in sub Saharan Africa where farms are fragmented over vast and remote rural areas (Wanyama et al., 2009). Several empirical studies show that agricultural cooperatives improve farm productivity through their influence on the adoption of productivity-enhancing technologies (Spielman et al., 2010; Francesconi and Heerink, 2011; Abebaw and Haile, 2013; Abate et al., 2014; Francesconi and Ruben, 2012). For instance, in Ethiopia, cooperatives are actively involved in the dissemination of agricultural inputs and about 56% of chemical fertilizers were provided by cooperatives in the 2010 production season (Ahmed and Meslin, 2017). In Cameroon, agricultural cooperatives are also actively involved in the production and commercialization of agricultural products, and bulk purchase of inputs such as chemical fertilizers. Cooperatives can also provide credit services to member farmers that ease production constraints (Tefera et al., 2016). Improvement in agricultural productivity is important for enhancing the livelihood of farmers, reducing rural poverty, and increasing food security (Shiferaw et al., 2014; Asfaw et al., 2012; Kassie et al., 2011). Several studies also indicate that cooperative membership improves the commercialization behaviour of smallholder farmers (Bernard and Spielman, 2009; Markelova and Mwangi, 2010). Commercialization improves farm productivity and farm income at micro-level, and food security and allocative efficiency at macro-level (Timmer, 1997). In addition to this, cooperatives can also reduce transaction

costs and information asymmetry by strengthening farmers' negotiation ability (Hellin et al., 2009; Trebbin, 2014). This will, in turn, increase the income of farmers (members) through their bargaining power, which increases the price of their products and lowers the costs of purchased inputs. Different studies also confirm the role of cooperatives in poverty reduction and in improving the livelihood of smallholder farmers (Getnet and Anullo, 2012; Ito et al., 2012; Verhofstadt and Maertens, 2014). However, there are also cases where collective actions did not improve farmers' situation (Poulton et al., 2010). According to ATA (2012), the quality and quantity of services provided by many agricultural cooperatives fall short of the needs and expectations of their members and other farmers. However, the situation can be improved further. Therefore, more research is required to show the role of agricultural cooperatives and to indicate what really works under which conditions.

Roles in rural society

Agricultural cooperatives have long been recognized to play important roles in rural society that translate into the improvement of living conditions of their members. Being voluntary, democratic and self-controlled business associations, agricultural cooperatives offer the institutional framework through which rural communities gain control over the productive activities from which they derive their livelihoods (Ofiel, 2005; Kamdem, 2015). The members of agricultural cooperatives tap the energies of group effort and economies of scale to engage in economic activities that they would not have otherwise been able to carry out on their own, thereby enhancing the chances of improving their living conditions. An example of a success story of cooperative improving the living conditions in a rural society, is that of, Florent Banza Ilunga in the Kabalo region of the Democratic Republic of the Congo. Florent grew cassava on 0.2 ha for years and could barely feed his wife and eight children. This changed in 2009, with the coming of Purchase for Progress (P4P) project implemented by WFP and FAO. P4P supported smallholders organized themselves into cooperatives, increase their productivity and obtain access to markets. Florent became a member of Dilume farmers' organization. In his second year with P4P, Florent planted 1.3 ha and harvested 1.1 tonnes of cassava. Selling part of this increased harvest to WFP, he earned about USD 220, which he decided to invest in another income-generating activity: Kitule had a health centre, but no pharmacy. Florent decided to invest USD 173 in establishing a small shop and stock. By early 2012, he had made profits of USD 1 260 (IFAD, WFP, FAO, 2012). Furthermore, more inclusive agricultural cooperatives play a strong social role in improving gender relations and helping women create safe spaces to build

their social solidarity and problem-solving capacity, particularly in all-female cooperatives (Baden and Pionetti, 2011). It is for this reason that agricultural cooperatives continue to be promoted in Cameroon, Africa and the rest of the world as instruments for rural development and poverty alleviation.

Development of cooperatives in Africa

The development of cooperatives in Africa can generally be said to have traversed three main eras: the pre-colonial era, the colonial era, and the post-colonial era, which combine the period of state control and that of cooperative liberalization. In Cameroon, the period of state control lasted up to the early 1990s and saw the origin and substantial growth of agricultural cooperatives under state control. Originating from government policy and directives rather than people's common interests and motivation, cooperative societies were conditioned to emerge as dependent agents and/or clients of the state and other semi-public agencies. They hardly operated as private business enterprises that are primarily driven by the interests of their members and the demands of the market. By serving as instruments for implementing government socio-economic policies, agricultural cooperatives more or less served the interests of the state than that of ordinary members and the general public. These institutions were subsequently engulfed into state politics to the extent that the failures of state policies found expression in the cooperative movement. The failure of state controlled agricultural cooperatives to meet developmental expectations partly triggered calls for a change in cooperative development in the early 1990s, thereby setting in motion the second phase of the post-colonial era. The implication, therefore, was that state control was stifling the performance of cooperatives and their potential contribution to rural development could only be realized if they operated according to market principles.

With the liberalization of the economy in most African countries through the adoption of Structural Adjustment Programmes (SAPs) in the 1990s, cooperatives entered a new era as they were arguably afforded a beginning to run their affairs following the 'retrenchment' of the state from the development scene. Consistent with the new economic environment that was sweeping across Africa in the 1990s, many countries adopted new policies and legislations aimed at liberalization of the cooperative sector. The main content of the resultant framework was to facilitate the creation of commercially autonomous and member-based cooperative organizations that would be democratically and professionally managed, self-controlled and self-reliant. Whereas cooperative development in Africa during the first era is well documented in the existing literature, the second era of

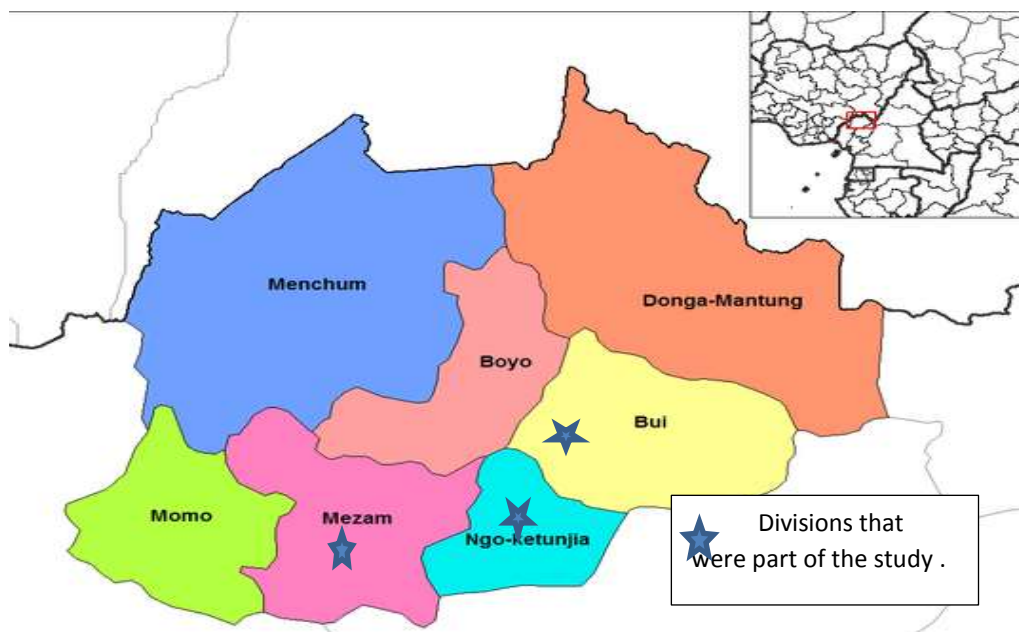


Figure 1. Map of North West Region showing the divisions.

Source: <http://www.hearttoheart.org/wp-content/uploads/2016/07/Cameroon-West-01.jpg>

cooperative development has not been adequately researched. Very little literature on the role of agricultural cooperatives in rural development in Cameroon have been generated since the early 1990s despite the continuing debate in favour of cooperatives as the most suitable form of organization for poverty reduction (Birchall, 2004). Literature on Agricultural Cooperatives in Cameroon have focused on the collapse of the coffee cooperatives (Lekane, 2016), evolution of Agricultural Cooperatives in the Western Highlands of Cameroon (Jiotsa et al., 2015) and the coffee crisis and the decline of Agricultural Cooperatives in the West Region of Cameroon (Fongang et al., 2017). It is against this background that the study was undertaken to fill the gap in literature on the role of Agricultural Cooperatives in rural development in the era of cooperative liberalization. The objective of the study therefore is to identify the role of Agricultural Cooperatives in rural development in the era of cooperative liberalization in Cameroon in the North West and South West regions.

MATERIALS AND METHODS

Study area

The study area comprised two regions in Cameroon that is the North West and South West regions. According to Cameroon's third population and housing census results published in 2010, the North West Region is the third most populated region in Cameroon with a surface area of 17,300 km². It has a population of 1,804,695 people with a population density of 104.3 people/km² higher than the

national average of 22.6 and a rural population of 1,044,236 people. The region is made up of seven divisions: Boyo, Bui, Donga-Mantung, Menchum, Mezam, Momo and Ngoketunja (Figure 1). On the other hand, the South West Region with a surface area of 25,410 km² has a population of 1,384,286 inhabitants and a population density 54.5 inhabitants/km² with a rural population of 722,199 people. The region is made up of six divisions: Fako, Meme, Ndian, Kupe-Maneguba, Manyu and Lebalem (Figure 2). Agriculture is the mainstay of the people of these two regions and crops like Cocoa, Robusta coffee, plantain and yams dominate in the South West Region while maize, Arabica coffee, Irish potatoes among others are cultivated in the North West region. Crops like oil palm, tea, rubber, and banana are cultivated on industrial scale by agro-industrial companies like Cameroon Development Corporation (CDC), Ndawara Tea Estate and PAMOL Plantations Plc.

Research design

This research is largely a descriptive study of the role of Agricultural Cooperatives in Agriculture and Rural Development in the era of liberalization in the North West and South West regions of Cameroon. The focus of the methodology is to uncover the basic social processes concerning agricultural cooperatives and their role in agriculture and rural development in the era of liberalization. Crooks (2001) states that the Grounded theory is ideal for exploring integral social relationship and behaviour of groups where there has been little exploration of contextual factors that affect individual lives. With the Grounded theory, the researcher attempts to derive a general, abstract theory of a process, action, or interaction grounded in the views of participants in a study. This process involves using multiple stages of data collection and the refinement and interrelationship of categories of information. Two primary characteristics of this design are the constant comparison of data

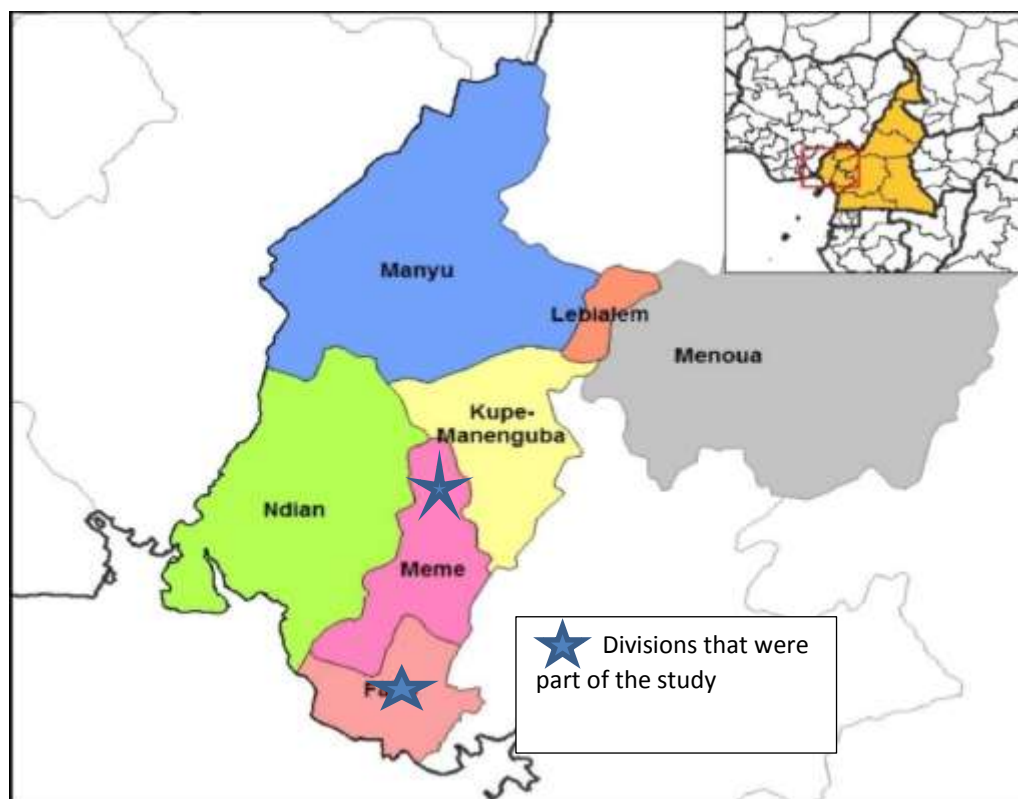


Figure 2. Map of South West Region showing the divisions.

Source: <http://www.hearttoheart.org/wp-content/uploads/2016/07/Cameroon-West-01.jpg>

with emerging categories and theoretical sampling of different groups to maximize the similarities and the differences of information (Creswell, 2003). The research is informed by quantitative and qualitative data. Primary qualitative data was generated through interviews on the field, focus group discussions and observation while primary quantitative data was generated through the use of a survey where questionnaires were administered to the respondents. The questionnaire was design for a descriptive study and is made up of six sections: (A) identification of the community, (B) background information, (C) demographic characteristics of respondents, (D) membership of agricultural cooperatives, (E) role of agricultural cooperatives in rural development and (G) challenges of agricultural cooperative in agriculture and rural development. The questionnaire has three types of questions and response format: open ended questions, closed ended and fix alternative questions. Relevant documents and internet sources were consulted for literature on the research topic. Secondary data was collected from archival materials from the Archives in Buea and Bamenda, from relevant books and documents on the research topic and internet sources. Other sources of information were from the Regional Services for Cooperatives and Common Initiative Groups in the Ministry of Agriculture and Rural development (MINADER) in Buea and Bamenda. The research was designed to carry out a wide-scale survey with the use of a questionnaire beside in-depth semi-structured interviews with a target sample of interest to the study. The questionnaires were administered only to members of agricultural cooperatives in the two regions.

Sampling procedure

This research made use of four sampling methods: stratified random sampling, purposive, convenient and snowball sampling methods. The stratified random sampling method was used because the researcher believed that the identified sub groups were likely to markedly differ in their responses (Gray, 2009). The population of this study was divided into three "strata". They include: (1) Members of the agricultural cooperatives. According to Kumar (2014), the determination of sample size in quantitative and qualitative research is based upon two different philosophies. In quantitative research you are guided by a predetermined sample size that is based on other considerations in addition to the resources available. On the other hand, Kumar (2014) states that with qualitative research you do not have a predetermined sample size but during data collection phase you wait to reach a point of data saturation. When you are not getting new information or it is negligible, it is assumed you have reached a data saturation point and you stop collecting additional information. It is on this premise that a sample size of 350 respondents was earmarked for the study. (2) Cooperatives and government officials (presidents, managers, coordinators and employees of agricultural cooperatives, the regional and divisional chiefs of services for cooperative and common initiative groups for the North West and South West regions in Ministry of Agriculture and Rural Development (MINADER). Eighteen persons were purposively selected and interviewed in this stratum. (3) The third stratum was made up of a random sample of groups of men and women who were members

and non-members of agricultural cooperatives in the communities under study. Five focus group discussions were organized with these groups to gather information on the role of agricultural cooperative societies in rural development in the community. Each stratum was sampled as an independent sub-population, out of which individual elements were purposively or randomly selected (Creswell, 2003).

Data collection

A convenient sampling method was used to select five divisions for the study taking into consideration their accessibility and their long-standing history in cooperative matters. The divisions that were part of the study were Mezam, Ngoketunjia and Bui for the North West Region (Figure 1) and Fako and Meme for the South West Region (Figure 2). In convenient sampling, the sample is selected on the basis that the respondents are conveniently available and this sampling procedure employs no systematic techniques to choose the respondents (Amungwa, 2020). The population of the study comprised 52 agricultural cooperatives randomly selected from the list of registered cooperatives at the Regional Services for Cooperatives and Common Initiative Groups in Buea and Bamenda with at least ten agricultural cooperatives per division. For each cooperative, questionnaires were to be administered to 7 respondents giving a total of 70 respondents per division and 350 respondents for the five divisions. It was on this premise that a sample size of 350 respondents was earmarked for the study. However, the two extra cooperatives (one in Meme division and one in Mezam division) were to make up for respondents that were not available because they have been displaced due to the crisis. In each of the five divisions selected, with the use of snowball sampling technique questionnaires were administered to members of agricultural cooperatives so long as members recruited their members or identified other agricultural cooperatives. Snowball sampling is a variation of convenience sampling and involves selecting a sample using social networks. The snowball sampling technique was preferred because many people have been displaced due to the Socio-political crisis in the study area. In each division, the researcher took time off to train the enumerators in order to have a common understanding of what each question on the questionnaire required. The enumerators were people based in the different divisions. They understood the village and knew when places were calm to go out and administer questionnaires. A pre-test of the questionnaire was carried out in Dibanda mile 14 Buea before the questionnaires were administered in the different divisions. While the enumerators were administering the questionnaires, the researcher conducted interviews with eleven agricultural cooperative officers and seven government officers to get an insight on the role of agricultural cooperatives in agriculture and rural development in the era of liberalization. Five focus group discussions were organized; two in Fako in the South West Region and three in Mezam division in the North West Region. Through observations, the researcher could appreciate agriculture and rural development activities of agricultural cooperatives in the rural areas. Data collection on the field lasted for five months and there after data analysis followed.

Data analysis

Data collected from the field was entered in EXCEL. It was further cleaned (checked for errors) and analyzed using IBM SPSS Statistics (2017) 25.0. Statistical Package for the Social Sciences (SPSS) is revolutionary software mainly used by research scientists which help them process critical data in simple steps. Working on

data is a complex and time-consuming process, but this software can easily handle and operate information with the help of some techniques (Noels, 2018). All tabular results generated by SPSS were extracted and presented on tables generated in Word. Tabular results generated by SPSS were exported into Excel to generate figures for the variables. Figures that could not be accommodated by Excel were allowed in SPSS form. Descriptive statistics (mean, frequency, percentages and standard deviation) were used to describe the data while Inferential statistics (Chi square test of independence) was used to test the relationship between variables. The level of significance used was 1 and 5%, with cut off point for statistical significance being P-value < 0.05. Qualitative data were grouped into themes and analyzed to display the opinions of respondents. ANOVA and regression analysis could not be used in this study because the dependent variable (cooperatives) could not be measured and assigned a continuous variable. The formulation of the questionnaire was to generate descriptive statistics and Chi square (inferential statistics) due to the categorical nature of the variables.

RESULTS AND DISCUSSION

The results of the research are presented and discussed based on the objective of the study which is to identify the role of agricultural cooperatives in agriculture and rural development in the North West and South West Regions of Cameroon in the era of liberalization. Three hundred and twenty-nine (329) questionnaires were administered to members of 52 agricultural cooperatives located in 40 villages with a response rate of 78.7% in the North West Region and 21.3% in the South West Region. The study set out to administer 350 questionnaires and 329 were actually administered giving a response rate of 94%. This response rate was considered very good based on recommendation by Kothan (2011) and supported by Mugenda and Mugenda (2012) who asserted that a response rate of 50% is adequate for analysis and reporting, 60% as generally good, and response rate of 70% as excellent.

Socio-demographic characteristics of the respondents

Out of the 329 respondents that were part of the study, 232 (70.5%) were males and 97 (29.5%) were females. According to data from the field, 16 (4.9%) respondents were born in 1972 followed by those born in 1974, 1975, 1976, with 12 (3.6%) respondents, respectively and participants born in 1980 with 12 (3.3%). Fifty two percent of the respondents were in their 40s. This age bracket falls under the active population in Cameroon. Hence, it is no surprise that 52% of the members of agricultural cooperatives are in this age bracket. The youngest of the cooperative member was born in 2001 while the oldest was born in 1938. In terms of level of education, 80 (24.3%) participants had completed primary education, 61 (18.5%) had completed secondary

Table 1. Members opinion on the role of Agricultural Cooperatives (ACs), on Agriculture and Rural Development (ARD) in the community.

ACs play a role on ARD in the community	Frequency	Percentage
Yes	264	80.2
No	65	19.8
Total	329	100.0

education, 41 (12.5%) had completed high school education and 36 (10.9%) had a higher education degree. Those who have never been to school were 10 (3.0%) in number. These results are an indication that about 97% of members of agricultural cooperatives can read and write. With regards to the marital status of the respondents, 250 (76.0%) participants were married, 58 (17.6%) respondents were singles and 17 (5.2%) widow(er). Nine percent of the respondents were in free union (concubinage) while 1 (0.3%) respondent was a divorcée. The study revealed that the maximum household size was 27 (0.3%), persons while the minimum was 1 (0.3%) person. The mean household size was 5.82 persons per household and the standard deviation 3.451. Data on the religious background of the respondents revealed that 160 (48.6%) respondents were of the Protestant faith, Catholics respondents represented 113 (34.3%), Muslim 21 (6.4%), other Christian religion 14 (4.3%), other religions made up the least proportion 7 (2.1%), and no religion 13 (3.0%). The study revealed that a total of 124 (37.7%) respondents have been members of an agricultural cooperative for more than 5 years followed by 85 (25.8%) respondents with a duration of between 1 and 2 years, while 58 (17.6%) respondents have been members of a cooperative for less than 1 year.

Role of agricultural cooperatives in agriculture and rural development

The study had as its objective to identify the role of agricultural cooperative in agriculture and rural development in the era of liberalization. This research captured the role of agricultural cooperatives in agriculture and rural development through the opinion of members of agricultural cooperatives in the community. Table 1 shows the results obtained from data collected from the field.

According to Table 1, 264 (80.2%) participants were of the opinion that agricultural cooperatives play a role in Agriculture and Rural Development, while 65 (19.8%) participants did not share that opinion. The high percentage of respondents 264 (80.2%) who were of the opinion that agricultural cooperatives play a role in agriculture and rural development is an indication that

agricultural cooperatives are doing a great job on the field in agriculture and rural development in the era of liberalization as confirmed by Farshid (2011) and Mohamed (2004) who state that agricultural cooperatives are the most important organizations that pay attention and try to support rural development in general and the agricultural development in particular through the activities and services achieved for the sake of farmers. On the other hand, Ingrid et al. (2018) attest that agricultural cooperatives have the ability to increase smallholder participation in markets and ensure realization of the economic benefits that come with market participation (that is access/affordability to inputs, finance, knowledge exchange, access to NGOs, marketing and bargaining power, etc). Sifa (2014), on her part contend that agricultural cooperatives have the role to facilitate small producers' access to: natural resources such as land and water, information, knowledge and extension services, markets, food, and productive assets such as seeds and tools and policy and decision making.

In this case the agricultural cooperative caters for the social and economic needs of society that the state, the private sector, big capitalist enterprises and small family businesses may not be able to satisfy.

The study conducted a Chi square test of dependence to find out the role of agricultural cooperatives on agriculture and rural development by region. The cross-tabulation results between 'Role of Agricultural Cooperatives in Agriculture and Rural Development by Region' showed that a majority of participants (64.1%) who agreed that agricultural cooperatives play a role in agriculture and rural development in communities were from the North West Region. $X^2 = 1.150$, P-value = 0.283 (P-value > 0.05) which indicates that participants' opinion on whether agricultural cooperatives play a role in agriculture and rural development in communities did not depend on the region of participants. This result is not significant at 5% level.

Roles played by agricultural cooperatives in communities according to respondents

The members of the agricultural cooperative are the direct beneficiaries of the role played by the agricultural cooperatives. The community benefits indirectly. When

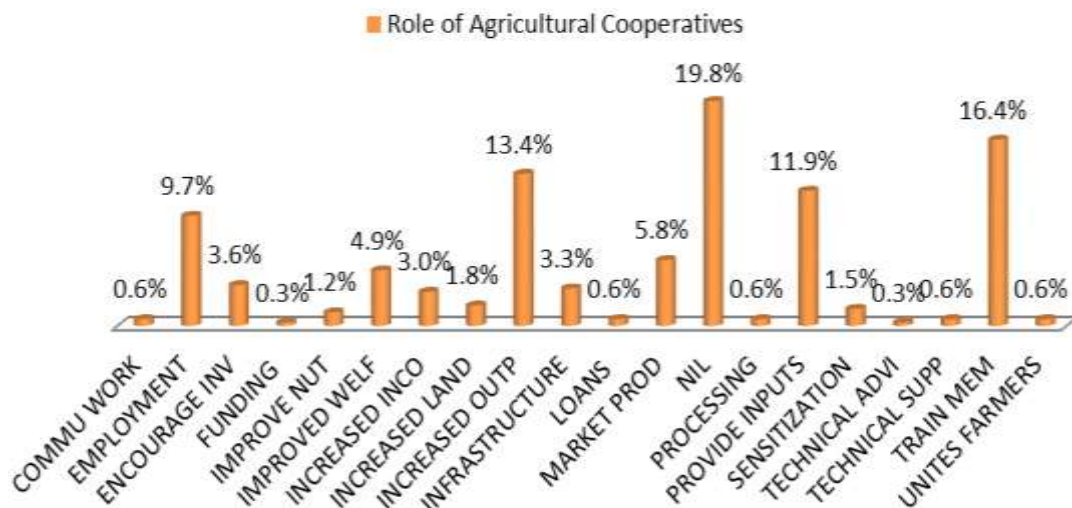


Figure 3. Role of agricultural cooperatives in agricultural and rural development in communities.

asked how the agricultural cooperatives play a role in agriculture and rural development in the communities where they operate, the respondents declared that agricultural cooperatives provide inputs to its members (improved seeds and fertilizer), increased output, market farmers products, training of members and employment among others. Agricultural cooperatives also encourage farmers to combat poverty, improve technical knowledge of farmers, encourage hard work among farmers, and contribute to self-employment (Nuredin and Byeong, 2005). Figure 3 shows the different roles agricultural cooperatives play in the community in agricultural and rural development according to the respondents. Nil in Figure 3 represents non-response to the question by participants.

It can be seen from Figure 3 that the most significant role played by agricultural cooperatives in communities, was training of members 54 (16.4%), followed by increased output 44 (13.4%), and provision of inputs 39 (11.9%). The roles played by agricultural cooperatives in agriculture and rural development that were identified by the respondents reflect the expectations of farmers when they joined agricultural cooperatives. Agricultural cooperatives according to the respondents also provide employment to their members. This finding is confirmed by Green and Haines (2002), Flora et al. (2004) and Zeuli and Radel (2005) who state that agricultural cooperatives create a model of self-help community development where members become informally gainfully employed. In well-structured agricultural cooperatives few people are formally employed as secretaries, and store keepers among others.

According to an interview with Cheke Chango Vincent, President of Buea Maize Cooperative society (BUMACOO), on the role of agricultural cooperative in

the community, he said “Agricultural cooperatives spearhead community development. They play the role of/or act as a guarantor for the flow of technology from the ministry of agriculture and rural development to the farmers who are members of the community and mobilize farmers into groups in order to work, produce and sell collectively”.

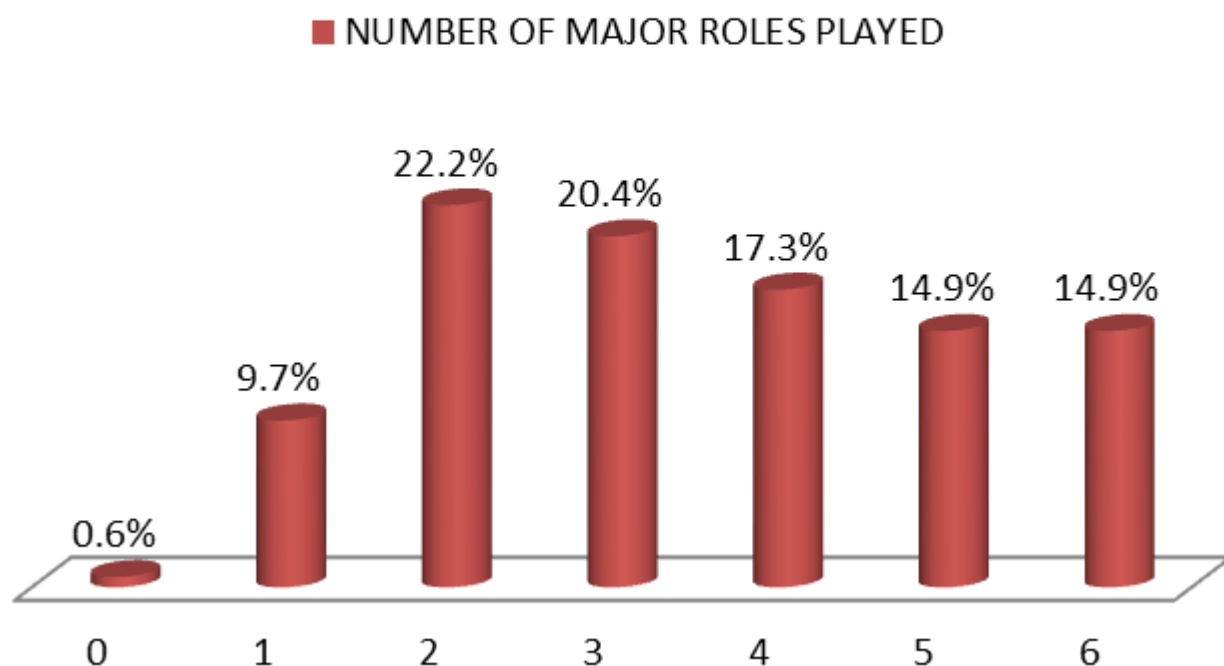
Despite the fact that the respondents enumerated the roles played by agricultural cooperatives in the communities, the research wanted to know the major role or roles agricultural cooperatives played in their communities in the era of liberalization. Data from the field revealed that 48 (14.6%) participants identified provision of credit, employment creation, improvement in agricultural production, capacity building, provision of infrastructure and services, protection of the environment as major roles played by Agricultural Cooperative Societies, followed by 42 (12.8%) participants who identified improvement in agricultural production and capacity building, and 29 (8.8%) who identified employment creation, improvement in agricultural production, capacity building, provision of infrastructure services, protection of the environment as major roles played by agricultural cooperative societies. The major roles of agricultural cooperatives according to the respondents were computed on SPSS to know the number, frequency and percentages of the major roles handled by an agricultural cooperative in the community because the nature of the question within the questionnaire gave the latitude for respondents to choose two or more alternatives. The results of the number of major roles played by agricultural cooperatives in the communities are shown in Table 2.

According to Table 2, 73 (22.2%) respondents identified only 2 major roles played by agricultural cooperatives, 67

Table 2. Number of major role played by Agricultural Cooperative Society (ACS) in the community.

Number of major roles played by ACS in the community	Frequency	Percentage
0 (N/A)	2	0.6
1	32	9.7
2	73	22.2
3	67	20.4
4	57	17.3
5	49	14.9
6	49	14.9
Total	329	100.0

N/A= Non-response to question by participants.

**Figure 4.** Number of major roles played by agricultural cooperatives.

(20.4%) participants identified 3 major roles, 57 (17.3%) persons who took part in the research identified 4 major roles and 49 (14.9%) participants identified up to 5 and 6 major roles played by their cooperatives in the community, respectively. This is shown in Figure 4. A majority 73 (22.2%) of the participants concluded that agricultural cooperatives can effectively and conveniently handle only two major roles to meet the demands of its clientele in the community. These two roles are: Improved Agricultural Production and Capacity Building. This finding is confirmed by Sifa (2014) who opined that Improved Agricultural Production is the primary purpose or role of agricultural cooperatives. In some cases, respondents declared that agricultural cooperatives can

handle three to four major roles. Agricultural cooperatives lack the capital resources to handle many roles that will meet the aspirations and needs of their members. According to interviews conducted with managers of some agricultural cooperatives, they declared that some major roles that the agricultural cooperatives perform besides improved agricultural production are distribution of fertilizer to their members, provision of feed, tractor services, marketing, and provision of storage facilities. These storage facilities in the case of potato farmers' cooperative society (Bui Potato Farmers' Cooperative and Santa Potato Farmers' Cooperative) have been constructed by GIZ sponsored potato project known as Green Innovation centres for the agriculture and food

sector (ProCISA).

Agricultural cooperatives in their efforts in rural development face a lot of challenges. Data from the field revealed that 85 (25.8%) respondents cited recent unstable social climate in the study area, lack of capital resources, lack of trust for cooperative societies, poor management, changing laws on cooperatives and high fragmentation of land holdings as challenges faced by their agricultural cooperatives, 62 (18.8%) others considered the recent unstable social climate and lack of capital resources to be the major challenges and 22 (6.7%) saw it to be recent unstable social climate, lack of capital resources, lack of trust for cooperative societies, poor management, and high fragmentation of land holdings as challenges facing their agricultural cooperatives. The recent unstable social climate (Anglophone crisis) in the North West and South West regions for now stands out as the greatest challenge to agricultural cooperatives. Farmers cannot go to their farms, and business is not as usual as agricultural cooperatives find it difficult to sell their produce. Besides the unstable social climate, lack of capital resources is another major challenge agricultural cooperative have to deal with. Despite these challenges, 230 (69.9%) respondents declared that they were satisfied with the role played by agricultural cooperatives in rural development. The following reasons were advanced for this satisfaction: training of the members, increased output, provision of inputs, increased incomes, marketing of produce and employment among others.

CONCLUSION AND RECOMMENDATIONS

Agricultural cooperatives play a vital role in agriculture and rural development as attested by 80% of the respondents. This study carried out from February 2019 to May 2020 in the North West and South West regions of Cameroon is therefore aimed at identifying the role of agricultural cooperatives in agriculture and rural development in the era of cooperative liberalization. According to findings from the study, it can be concluded that agricultural cooperatives play a role in rural development in the community in the era of liberalization in two major areas: improved agricultural production and capacity building (training of members), which implies that agricultural cooperatives can and effectively play two major roles in rural development with limited resources. Besides, improved agricultural production and capacity building, agricultural cooperatives fulfil its role in agriculture and rural development by also providing inputs to its members (improved seeds and fertilizer), combat poverty, improve technical knowledge of farmers, encourage hard work among farmers, and contribute to self-employment, and training on marketing (Nuredin and Byeong, 2005).

For agricultural cooperatives to perform its role as veritable tool for rural development, the government should increase investment in agriculture and rural infrastructure in line with their 10% commitment to the Comprehensive Africa Agriculture Development Programme (CAADP). Cameroon is still far away to achieving its CAADP goal of investing 10% of its budget in agriculture. The annual budget for the Ministry of Agriculture and Rural Development for 2019 represented 1.75% of the total budget (Nkoutchou, 2018). Priority in agriculture should be given to infrastructure investments and extension for small farmers. The government needs to accelerate the creation and functioning of the farmer's bank promised by the Head of State in January 2011 to meet the financial needs of agricultural cooperatives since commercial banks do not give agricultural loans. Governments should identify cultivable land, classify them into different types of crops if necessary and negotiate with communities for eventual use of land. The land should be prepared and put at the disposal of the agricultural cooperatives and the youths who find it difficult to do agriculture especially for graduates from agricultural schools and training centres. This will solve the problem of limited access to land by agricultural cooperatives and youths who cannot join cooperatives because of limited access to land. Lastly, the government should introduce cooperative as a discipline in the educational system from primary education to the university level. This will enable members of cooperatives to better understand the role of cooperatives in agriculture and rural development.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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