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Demographics of Smallholder Sugarcane Farmers in Five Regions of Cameroon

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Authors' contributions

This work was carried out in collaboration between all authors. Authors SAS and BKN designed the study, wrote the protocol, managed the literature searches, participated in the baseline survey (with author HAA) and wrote the first draft of the manuscript. Author EEF performed the statistical analysis. All authors read and approved the final manuscript.

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ABSTRACT

Aim: This paper highlights the demographics of smallholder sugarcane farmers in Cameroon as well as a gender perspective and its implications.
Place of Study: Five regions of Cameroon representing the five agro-ecological zones of the country.
Methodology: A baseline survey was carried out through one-on-one structured interviews with 212 sugarcane farmers including farm visits for observational assessments. Key informants were delegates of the Ministry of Agriculture and Rural Development in all the regions surveyed.
Results: The South West region had the highest number of sugarcane farmers. The majority of all farmers were males, between the age group 30 - 50 years. The majority of the farmers interviewed received formal education. The literacy level was highest in the South West region (100%) and lowest in the North region (13%). 15.6% farmers had much experience in sugarcane farming. Three quarters of the sugarcane farmers were full-time farmers. However, less than one quarter devoted more time on sugarcane farming. 35.4% of the farmers inherited the land on which their sugarcane farms were established and 34% purchased theirs. For those who inherited their

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farmland, 27.8% were males whereas 7.7% were females. For those who purchased land, 28.2% were males whereas 5.7% were females.

Conclusion: Considering the results obtained, if sugarcane farmers could be provided with the right incentives such as subvention from the government and stabilization of the price of sugarcane, they would double their present productivity and this would go a long way to circumvent the issue of sugar scarcity and price hike in the country. Gender inequality was portrayed for all demographic characteristics studied. However, women could be the pillar on which increased sugarcane production is based if they could have secure rights on the land they cultivate, access to credit, as well as inputs such as fertilizers, irrigation, technology, information on new agricultural practices, and marketing infrastructure.

Keywords: Sugarcane; gender; smallholder; demographics; farmers; Cameroon.

1. INTRODUCTION

[1] define a smallholder as a farmer with limited resource (land, capital or skill) endowment compared to other farmers in the same sector. [2] defines it as a farmer owning a small-based plot of land on which he grows subsistence crops and one or two cash crops, relying almost exclusively on family labour. [3] points out that they manage areas varying from less than one hectare to 10 hectares and are characterized by family-focused motives such as favouring the stability of the farm household system and using part of the produce for family consumption. Smallholders, according to [4], may also differ between countries, agro-ecological zones and according to the significance attributed to smallholder agriculture in societies. This explains why in most African countries, a smallholder may have a farm size of 2 hectares or less as opposed to one in Brazil with up to 50 hectares of farmland and another in the USA whose total volume of sales does not exceed $250,000 [5]. Although smallholding is an old concept, capitalizing on smallholders as a means to achieve food security, poverty alleviation, economic growth and sustainable development, became plausible only after the Green Revolution in Asian countries [6,7]. As of 2005, Africa had 33 million small farms (8% of total) as compared to Asia with 87% of total farms [8]. It was also estimated in 2004 that smallholdings constituted approximately 450 million households corresponding to 2 billion people that make up 92% of the world's 1.1 billion dollar-poor [9,6]. Despite their resource constraint in Sub-Saharan Africa, they contribute to 70% of total employment, with a total 40% share in merchandise exports and 33% of GDP on average, though heterogeneous across countries. They also supply agricultural raw materials to the manufacturing sector which contributes one-third to two-thirds of value added [10].

Sugarcane is the principal raw material for the manufacture of sugar that is indispensable in the confectionery industry. It is also used in the production of the biofuel, ethanol. It is a perennial crop that is produced by 195 countries worldwide with a total production that stands at about 1,324.6 million tons a year [11], 50% of which is produced by Brazil, India and Cuba. Cameroon is among the sugarcane-producing countries in Africa. In the past five decades, its sugarcane production has observed a sharp rise from 50,000 tons in 1961 to 1,450,000 tons in 1990 and gradually dropping to 1,216,320 tons in 2014 [12]. The principal actor in the sugarcane sector in Cameroon is the sugar agro-industry, SOSUCAM (Societe Sucreriere du Cameroun), which owns approximately 46,207 acres plantations in M'bandjock and Nkoteng, in the Upper Sanaga Division of the Centre region. It is the market leader of sugar in Cameroon, producing 105,000 tons of sugar per annum, of which 100,000 tons is supplied to the Cameroonian market and the rest (5,000 tons) is exported. There are other sugar manufacturing companies such as NOSUCA (Nouvelles Sucreriere du Cameroun), SUMOCAM and New Food that claim to have sugarcane farms all over the national territory. Despite the vast area of land allocated for sugarcane cultivation, these industries often do not meet up with the national demand for sugar estimated at 300,000 tons per annum. Higher sugarcane productivity could mean an increase in ethanol production where there is an interest in its manufacture, which could be used as a supplement for expendable fuels, thereby eliminating fuel scarcity and price hikes.

Cameroon is made up of 10 administrative regions. The demographic status of five regions, which are representative of the five agro-ecological zones, gives an insight into the subject being examined in this study. Cameroon's population is growing, with the

population of the following five regions being: North: 1,687,959 (836,927 males, 851,032 females); Adamawa: 884,289 (438,913 males, 445,376 females); West: 1,720,047 (805,478 males, 914,569 females); South West: 1,316,079 (666,822 males, 649,257 females); and Centre: 3,098,044 (1,552,362 males, 1,545,682 females). The population density of these regions is very uneven. Three regions marked by relatively high population density include the West (123.8%), the South West (51.8%) and the Centre Regions (44.9%). By contrast, the North and Adamawa Regions are very sparsely populated (25.5% and 13.9% respectively). The percentage of people in these regions found in the active working age group, that is, from 15 – 59 years are as follows: North (46.9%), Adamawa (47.7%), West (46.5%), South West (55.6%) and Centre (56.6%). In all the five regions considered, the people are nominal Christians except for the North and Adamawa Regions were a large population is Muslim. To be more precise, the dominant religion in each region is as follows: North (47% Christians, 40% Muslims) Adamawa (71% Muslims), West (59% Christians), South West (93% Christians) and Centre (91% Christians) [13].

Cameroon being an agrarian economy, smallholders are involved in the cultivation of cash crops like rubber and cocoa including sugarcane. [14] mentions factors that have led to low productivity in the cocoa smallholdings sector and even suggests reforms that could attract a younger, more financially viable and a more educated generation of farmers into the sector so as to raise productivity by 2015. Meanwhile, the sugarcane smallholders sector seems not to have been exploited because a review of literature provides little or no information on their demographics, despite abundant literature on the agricultural sector in Cameroon. The overarching question that needs to be unraveled could therefore be "who are the people involved in small-scale sugarcane farming in Cameroon?" It is logical that their contribution should be able to boost sugarcane productivity.

Economic development of any society depends on the quality of human resources. Women, referred to as 'invisible farmers' [15] are the backbone of the agricultural work force in Cameroon. Be it in crop farming, animal husbandry, fisheries, forestry or any allied agricultural activity, women do the most tedious and strenuous tasks. Gender issues assume great importance in the Cameroonian agricultural scenario due to the large diversity in the status of women which is influenced mostly by social and religious taboos, economic status and farm production systems.

This study was therefore undertaken to obtain benchmark data on the characteristics of sugarcane smallholders with regards to their population, age group, duration of their involvement in sugarcane farming, educational level, operational and residential status, and land occupancy of their sugarcane farms in five regions of Cameroon. Considering the diversity of socio-cultural settings where agricultural activities are practiced in Cameroon, there was an overwhelming need to examine the demographics of smallholder sugarcane farmers on the basis of gender. This is important especially as evidence shows that gender bias communities suffer from higher levels of poverty, lower quality of life, slower economic growth and development and weaker governance [16]. It will also discuss possible reforms which could have a positive impact on the sugarcane sector in Cameroon.

2. MATERIALS AND METHODS

2.1 Study Sites

This study was conducted in five regions of Cameroon, representing the five agro-ecological zones that make up the country (Table 1). Random sampling was applied in the selection of study sites. From each region, three administrative divisions were randomly selected for sampling. The number of divisions and the localities finally sampled (Fig. 1) depended on information obtained from key informants on the availability of sugarcane farmers in that area.

The North Region is part of the Sudano-Sahelian Zone where rainfall is above 1,000 mm south of Garoua to less than 800 mm north of Garoua. Its main economic activities are agriculture, livestock production and tourism. SODECOTON, the agro-industry responsible for cotton production, promotes the cultivation of cotton and food crops by providing inputs to farmers. Crops mostly cultivated are millet, sorghum, irrigated rice, peanuts, sesame and sugarcane [17].

Adamawa Region is in the High Guinea Savanna Zone where rainfall is 1,600 mm with a rapid decrease towards the north. It has a surface area of 63,701 km^2 and is the third largest of the ten regions. Its main economic activities are agriculture, livestock production and trade with neighbouring countries (Nigeria, Chad and Central African Republic). The Fulani form the major ethnic group. It has just one state-owned university. Crops mostly cultivated here are sorghum, maize, sugarcane, peanuts, robusta coffee in the south in low topographic locations. It forms the barrier between the forested south and the savanna north. The land is rugged, with most of it being used for cattle rearing. Hence, it is a major grazing zone [17].

The West Region is part of the Western High Plateaus Zone where rainfall is about 2,000 to less than 4,000 mm. It has a surface area of 13,892 km^2 and is the breadbasket of Cameroon, meaning that it is the most productive agricultural region. It is an economic hotspot, being home to the enterprising Bamileke tribe. It has one state-owned university and one private university. It also has several primary and secondary schools and institutes. Its main economic activities are agriculture, brewery, poultry and tourism. Crops mostly cultivated are maize, rice, beans, groundnuts, melons, yams, plantains, bananas, cassava, taro, cocoyams, potatoes, sugarcane, arabica coffee, onions, green beans, pepper and tomotoes. Coffee is the major cash crop. Cocoa is grown in the lowlands. Tea and tobacco are also grown. Livestock rearing such as cattle, pigs, poultry, goats, and sheep is one of their preoccupation [17].

The South West Region forms part of the Humid Forest Zone with monomodal rainfall regime, where rainfall is about 3,000 to less than 4,000 mm with the exception of Debunscha that has rainfall of about 10,000mm. It has a surface area of 25,410 km^2. It has one state-owned university and three private universities. It also has several primary and secondary schools, and post-secondary institutions. Its main economic activities are agriculture, fishing, petroleum exploitation, tourism and forest exploitation. It has agro-industrial plantations of rubber, banana, palms and tea and a labour force of migrants mostly from the North West Region. Other crops cultivated in this region are robusta coffee, cocoa, sugarcane, roots and tubers, maize and vegetables [17].

The Centre Region is the political capital of the country. It makes up part of the Humid Forest Zone with Bimodal Rainfall Regime where rainfall is about 1,600 to 2,000 mm. It has a surface area of 68,953 km^2, two state-owned universities and three private universities. Primary and secondary schools are fairly widespread. Its main economic activities are agriculture, brewery and forest exploitation. Food crops such as cassava, plantain, cocoyam, groundnuts, maize, rice and yams are commonly grown. It has multiple plantations. It is one of the most important cash crop zones, particularly cocoa, due to its hot humid climate. Sugarcane plantations of SOSUCAM are located in the Mbandjock and Nkoteng areas. Coffee, tobacco, palms and pineapples make up the plantation economy [17].

2.2 Techniques

In order to obtain information on smallholder sugarcane farmers, research methods such as literature study, interviews, field observations and the baseline survey were used. Information was primarily obtained from key informants such as the regional delegates of the Ministry of Agriculture and Rural Development (MINADER) at the divisional and sub-divisional levels, MINADER extension workers and management officials of SOSUCAM. Focus group interviews, one-on-one structured interviews with sugarcane farmers and farm visits for observational assessments were methods also employed. Secondary data were obtained from literature review even though literature considering smallholder sugarcane farming in Cameroon proved scarce. The survey was undertaken by a multidisciplinary team in a single phase from May to September 2015 in the designated five regions of Cameroon (Table 1). A simple random sampling strategy was used to obtain respondents from all the five regions. However, a door-to-door approach was used in localities with fewer households. 212 farmers were interviewed using a pre-designed semi-structured questionnaire which was produced in both the English and French language to suit the English and French speaking respondents respectively. Only one member per household was interviewed and that person was the one managing the farm(s). The data collected represented characteristics of smallholder sugarcane farmers, sugarcane cultivars and agronomic practices involved in sugarcane cultivation. Data were analyzed using the IBM SPSS version 21.

Table 1. Localities in the five regions sampled

Agro-ecological zone	Region	Division	Localities
Zone I	North	Benoue	Lagdo
(Sudano-Sahelian)		Faro	Poli
Zone II	Adamawa	Vina	Lac Tizon
(High Guinea savanna)		Mbere	Nganhi Roblin
Zone III	West	Menoua	Dschang
(Western highlands)		Noun	Foumbot
Zone IV	South West	Fako	Buea, Muea, Tiko, Limbe, Ekona, Muyuka
(Humid forest with monomodal rainfall)		Kupe Muanenguba	Tombel, Nsukke
		Lebialem	Aloh, Menji
Zone V	Centre	Mfoundi	Ahala II
(Humid forest with bimodal rainfall)		Upper Sanaga	Mbandjock, Nkoteng
		Lekie	Obala

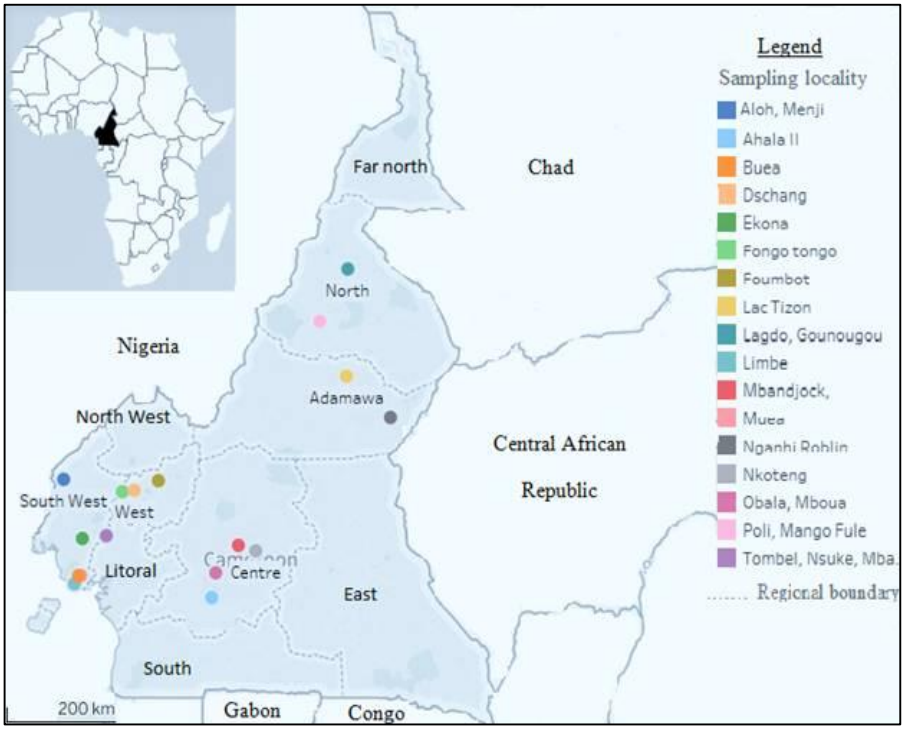


Fig. 1. Map of Cameroon showing localities sampled within the five regions in the study area

3. RESULTS

3.1 Distribution of Sugarcane Farmers

The South West Region had the highest number of sugarcane farmers followed by the Centre Region while Adamawa Region had the least number (Fig. 2a). The majority of them were males (83%). The results revealed gender imbalance in all regions surveyed (Fig. 2b). No female farmers were recorded in the North and Adamawa Regions. The percentage of female farmers in the South West and Centre Regions were almost the same.

3.2 Age Distribution of Smallholder Sugarcane Farmers

The majority (57.5%) of the farmers were between the age group 30 - 50 years (Fig. 3a). In this study, none of the farmers were below 15 or above 65 years. Of the 57.5% that comprised the active working age group, 47.6% were males while 9.9% were females (Fig. 3b). Also,

the highest number of farmers (20.8%) in the active working age group were found in the South West region. The North region had the highest number of farmers (3.3%) who were below 30 years, while Adamawa had the highest number of farmers (7.1%) who were above 50 years (Table 2).

3.3 Educational Level

The majority of the farmers interviewed received formal education. Overall, 34.6% and 31.7% attained primary and secondary school respectively while 29.3% had no formal education. On average, only a minority (4.3%) attained tertiary level of education despite the high proportion who are educated. More men (27.4% and 24.5% respectively) attained primary and secondary levels of education than women (7.2% each). Out of the 4.3% that attained tertiary education, only 0.5% were women (Table 3). The literacy level (Fig. 4) was highest in the South West Region (100%) and lowest in the North Region (13%). Meanwhile, the Centre Region had the highest number of farmers with tertiary education (1.9%).

3.4 Years of Experience

The number of years that smallholder farmers have been engaged in sugarcane farming varied. Most (39.2% and 34.5%) had 2 - 6 years and 7 - 9 years of experience respectively whereas very few (15.6%) had more than 11 years of experience (Fig. 5a) indicating that sugarcane farming is still new to them. Within the 2 - 6 years of experience, the highest percentage (45%) were found in the South West Region. In the Adamawa Region, 46.7% of the farmers had 7 - 11 years of sugarcane farming experience. Furthermore, sugarcane farmers with the most experience (>11 years) were more abundant in the North Region (20.5%) (Fig. 5b) and were all males.

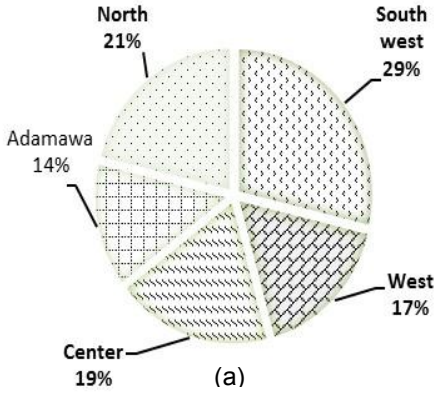


Fig. 2a. Distribution of sugarcane farmers by region;

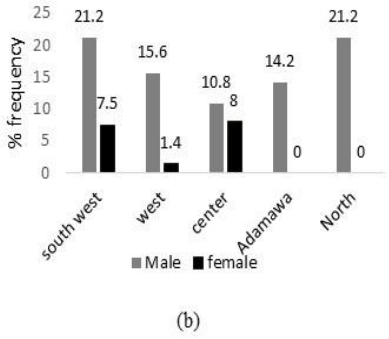


Fig. 2b. Gender distribution of sugarcane farmers in five regions of Cameroon

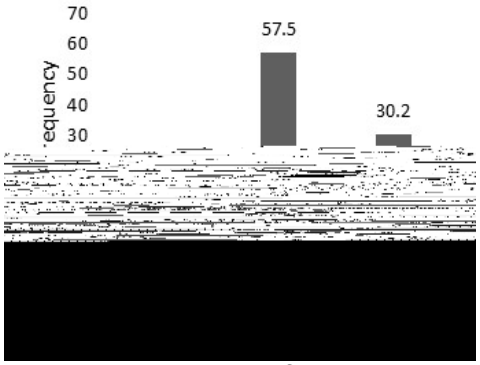


Fig. 3a. Age distribution of smallholder sugarcane farmers;

Fig. 3b. Age distribution of smallholder sugarcane farmers by gender

Table 2. Age group of smallholder sugarcane farmers per region

			Age			Total
			<30	30-50	>50	
Region	South West	Count	4	44	13	61
		% of Total	1.9%	20.8%	6.1%	28.8%
	West	Count	6	20	10	36
		% of Total	2.8%	9.4%	4.7%	17.0%
	Centre	Count	5	23	12	40
		% of Total	2.4%	10.8%	5.7%	18.9%
	Adamawa	Count	4	11	15	30
		% of Total	1.9%	5.2%	7.1%	14.2%
	North	Count	7	24	14	45
		% of Total	3.3%	11.3%	6.6%	21.2%
Total		Count	26	122	64	212
		% of Total	12.3%	57.5%	30.2%	100.0%

Table 3. Educational level of smallholder sugarcane farmers by gender

			Education				Total
			None	Primary	Secondary	Tertiary	
Gender	male	Count	56	57	51	8	172
		% of Total	26.9%	27.4%	24.5%	3.8%	82.7%
	female	Count	5	15	15	1	36
		% of Total	2.4%	7.2%	7.2%	0.5%	17.3%
Total		Count	61	72	66	9	208
		% of Total	29.3%	34.6%	31.7%	4.3%	100.0%

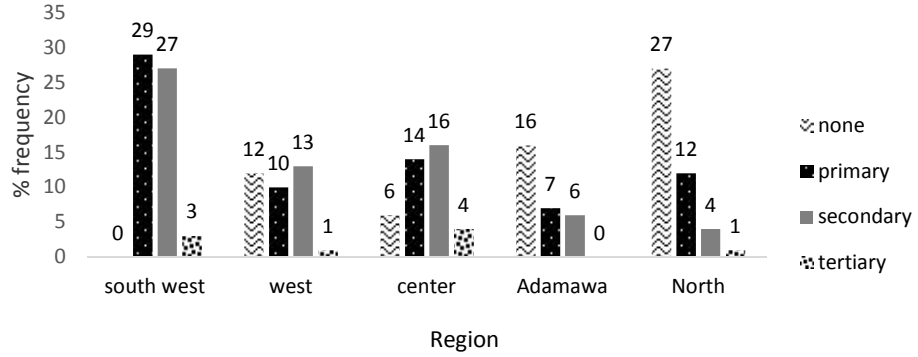


Fig. 4. Educational levels of farmers across the five regions surveyed

3.5 Operational Status

On the whole, three quarters of the farmers were engaged in full-time farming (Fig. 6). However, less than one quarter devoted more than 50% of their time on sugarcane farming whereas the rest spent less than 50% of their time on sugarcane farming.

3.6 Land Occupancy

35.4% of the farmers inherited the land on which their sugarcane farms were established, 34% had purchased theirs, whereas 19.6% of farmers were paying rents (Table 4). For those who inherited land, the highest percentage was found in Adamawa Region (53.3%) closely followed by the South West Region (52.5%). Out of the 52.5% in the South West Region, 37.3% were males and 15.3% were females. For those who purchased their land, the highest percentage was found in the South West Region (39%) followed by the North Region (37.8%). Out of the 39% in the South West Region, 27.1% were males and 11.9% were females. Renting of land was most common in the West Region (36.1%), with 33.3% being

males and 2.8% females. This is surely due to the fact that the West region is a highly populated region and the people of this region do not sell land to foreigners. Foreigners can only rent. As for the autochthones, they are more involved in market gardening which is a more lucrative enterprise for them than sugarcane.

4. DISCUSSION

4.1 Distribution of Smallholder Sugarcane Farmers

It was observed that the majority of smallholder sugarcane farmers were located in the South West Region (Fig. 2a) where the agro-industry, Cameroon Development Corporation (CDC), has established most of its plantations growing crops such as Oil Palm, Rubber and Banana which are cash crops just like sugarcane. Secondly, proximity of this region, especially Fako Division, to the economic capital, Douala, could be a motivational factor for many of the farmers to get engaged in sugarcane farming because they could easily sell their harvested crops to buyers from Douala. Another important reason could be that the agro-climatic conditions of this region favour sugarcane farming which is why the region has more farmers growing sugarcane than any other region surveyed. Sugarcane farming is thus a male dominated activity and this is verified for all the regions surveyed (Fig. 2b). This may be due to the fact that most women in Cameroon are engaged in food crop farming (an occupation that directly provides food for their households) rather than cash crop farming. In some regions, no female sugarcane farmers were registered. The Centre Region had the highest number of female farmers with a percentage almost reaching that of the males in the region (Fig. 2b). This is probably because most of the farmers in the Centre Region, especially in the Obala and Ahala II localities, had sugarcane planted only in backyard gardens which are mostly patronized by women. In addition, the percentage of women

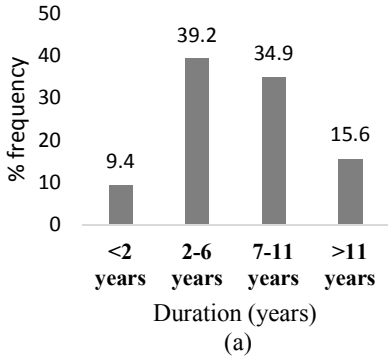
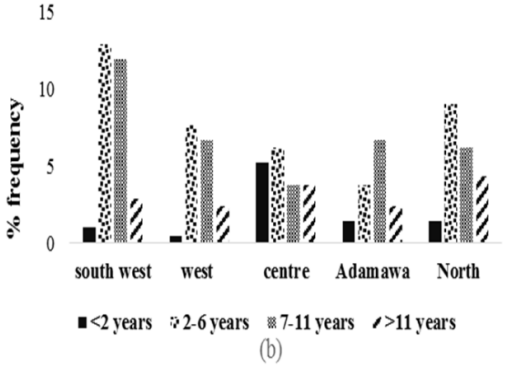


Fig. 5a. Number of years farmers have spent farming sugarcane



5b. Number of years farmers have spent farming sugarcane per region

Table 4. Land occupancy of sugarcane farms by gender

			Gender		Total
			male	Female	
Land ownership	inherited	Count	58	16	74
		% of Total	27.8%	7.7%	35.4%
	purchased	Count	59	12	71
		% of Total	28.2%	5.7%	34.0%
		Count	37	4	41
	renting	% of Total	17.7%	1.9%	19.6%
		Count	19	4	23
	other	% of Total	9.1%	1.9%	11.0%
		173	36	209	
Total		Count	82.8%	17.2%	100.0%

sugarcane farmers in the South West and Centre Regions are almost equal. A plausible explanation may be the very cosmopolitan nature of these two regions with little restraint from religious and social barriers. Meanwhile, in the Adamawa and North Regions (Muslim dominated), sugarcane farming was observed to be a male-dominated activity (Fig. 2b). These two regions are noted for their customs which mostly confine women to domestic spheres thus their total absence in sugarcane farming.

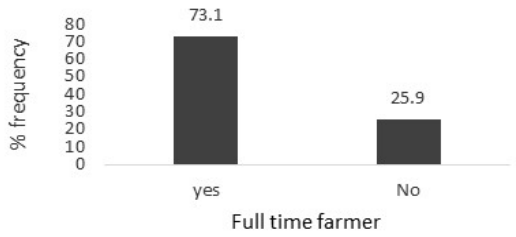


Fig. 6. Operational status of farmers sampled

4.2 Age Distribution of Smallholder Sugarcane Farmers

The age group 30 – 50 years signifies that the farmers are within the active working age group and their farming productivity could increase. According to [1], people of the age group 15 – 64 years are considered economically productive whereas those out of this range are considered non-productive. The farmers interviewed were between 15 and 65 years implying that there is an existing workforce that is engaged in sugarcane farming and if provided with the right incentives such as subvention from the government and stabilization of the price of sugarcane, their present productivity could be doubled. The small proportion of farmers below 30 years could be an indication that youths are getting into other activities which may be considered more lucrative than sugarcane farming. Or it could probably just be a sign of rural exodus to urban areas in search of jobs. Also, the highest number of farmers in the South West Region in the active working age group could be because farming is one of the dominant activities of this region due to the fertile nature of its soil (volcanic rich soils due to the presence of Mount Cameroon) and conducive climate (200-11,000 mm rain/year, 0-2,500 meters above sea level, and 26ºC mean annual temperature [18]. The reason for the majority of the farmers being in the active working age group 30 - 50 years suggest that those below 30 years are involved in non-agricultural activities, an implication of existence of a working force that can be engaged in any economic activity. Gender imbalance observed with the number of farmers involved in growing sugarcane may be due to laws and customs which impede women's access to land ownership, credit, productive inputs, employment, education, information, or medical care; customs, beliefs and attitudes which confine women mostly to the domestic sphere; and unpaid domestic and farm workloads which impose severe time burdens on women [19]. The number of males largely exceeds that of females given that males are the ones who own land.

4.3 Educational Level

Education is one of the most important factors of human capital development which is a key determinant of growth and poverty alleviation. More male sugarcane farmers had a formal education than the females and at all levels of education. This could be an indication of financial constraints at the level of sugarcane smallholdings and they thought it wise to send the boys rather than the girls to school. But gender disparity was observed even as low as from primary level of education where it is thought that education is 'free' and every household therefore has the opportunity to send both male and female children to school to obtain the basic education. It can be argued that most rural families do not believe it is profitable to educate the girl child because she is eventually going to get married to another family. So, it could be considered a waste of financial resources on the part of the girl's family to educate her. According to [20], more boys than girls completed secondary school. The girls are most likely to drop out of school than their male counterparts. Imbalances in the division of labor between men and women and with access to education and productive resources have important implications, not only for equity, but also for economic output, productivity and food security. And they profoundly affect men's and women's different capacities and incentives to participate in economic and social development [21]. This is particularly true of the North and Adamawa Regions that have traditions and religious customs exacerbating the non-involvement of females in activities that are not household chores. [22] report that poverty in women can

be identified easily by their lack of basic education, a significant gender educational gap which characterizes most developing countries. The fact that females were generally disadvantaged in gaining access to education, a vital asset to mitigate poverty, is an indication that the State should consider provision of education to girl children in rural areas.

Some of the sugarcane farmers had a tertiary education. This is simply because part of the survey was carried out in semi-urban areas in the Centre Region. Also, the high literacy in the Centre and South West Regions could be as a result of the higher number of sugarcane farmers in those regions. The high literacy rate can be a catalyst for adoption of new technology, requiring frequent reading of different agricultural documents. [23] reports that the ability to read and write enhances the adoption of new technologies whose dissemination involves simple leaflets, pamphlets, posters, newspapers or other simple written materials. Education is vital for impartation of skills for farmers to grasp and adopt farming technologies, utilize market information systems and meet challenges on- and off-farm from an informed standpoint.

4.4 Years of Experience

The reason for more highly experienced sugarcane farmers in the North Region could be linked to the very high temperatures in the region which cause most people to chew sugarcane to quench their thirst since it has high water content (about 80%). Thus, it is likely that more farmers got into sugarcane farming in this region early enough in order to satisfy the needs of the people.

4.5 Operational Status

Farmers devoted less than 50% of their time on sugarcane farming. This is probably due to the fact that besides being involved in the cultivation of sugarcane, they do cultivate other food and cash crops while those who are not full time farmers have their primary profession which takes up their time and is the primary source of their livelihood. The women are devoted to food crop (maize, cassava, beans, etc.) production while the men are more market oriented involved in cash crop (cocoa, coffee, etc.) production.

4.6 Land Occupancy

Renting of land was most common in the West Region, probably due to the fact that this is a highly populated region and the indigenes do not sell land to foreigners. Foreigners can only rent land. As for the indigenes, they are more involved in market gardening which is a more lucrative enterprise for them than sugarcane.

The results of land occupancy by gender are in accordance with that of [24] who report that women have historically been largely landless since most of them own little or no land, a vast proportion of them working as unpaid labour on family farms, or as landless labourers on the fields of others, or under insecure tenure arrangements on land obtained through the family or markets. In most regions, the self-employed women are typically those working on family farms where the land is owned by men (be it husbands or male in-laws), rather than by themselves.

There is a wide gap between the contribution of agriculture to the gross domestic product of the country and the population supported by agriculture. Thus, implying that this agricultural population is trapped in the vicious cycle of low productivity, low income thus low livelihood status. Rural women hold the keys to many of the agricultural systems for food production, seed selection and sustained farming. According to [25], rural women have historically played a crucial role in agriculture for food production and household food security while men are seen as market-oriented farmers [26]. This is more evident in developing countries such as Nigeria, South Africa and Ghana [27]. [28] reports that rural women alone are responsible for up to 50 percent of the world's food production and they also contribute about 60 to 80 percent of the production in many developing countries. Since sugarcane is considered a cash cop in Cameroon, it is therefore understood why its production is a male-dominant activity since women are most often engaged in food crop farming which does not involve sugarcane. This finding contradicts that of [29] in South Africa where sugarcane farming is a female-dominant activity, reason being that male smallholder sugarcane farmers might have slightly moved away from agriculture to the mining sector. But there is an increased feminization of agriculture in most parts of the world [24] with women increasingly being involved in cash crop production.

5. CONCLUSION

Generally, most of the sugarcane farmers are within the active working age group, are literate, have only been involved in sugarcane farming for at most six years and own the land they use. Most of them are engaged in full-time farming but have farms with other crops to cater for. Hence, very little of their time is spent on sugarcane farming. The South West Region has the highest number of smallholder sugarcane farmers. There is gender disparity in sugarcane farming in Cameroon. However, women could be the pillar on which increased sugarcane production can be based. How effectively they can contribute will depend crucially on their having secure rights on the land they cultivate, as well as access to credit, and inputs such as fertilizers, irrigation, technology, information on new agricultural practices, and marketing infrastructure.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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