



Research Paper

Measuring the effect of large scale land acquisition on local livelihood

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ABSTRACT

Large scale land acquisition for commercial agriculture is a fast-evolving type of investment in many developing countries. However, such investments entail negative impacts particularly on the local communities, who see their livelihood hampered by land acquisitions. This study examined the socio-economic effects of large scale land acquisition on local livelihoods in the Tiko, south west region of Cameroon. The analysis is done on the basis of the Sustainable Rural Livelihood Approach. Data was collected through the administration of detailed questionnaires to various households. Besides, secondary data were also drawn from various sources to complement the primary data. After analyzing the data set, the study found out that the local people faced great challenges prior to the land transferred to CDC. These challenges were measured by employment opportunity, food production, compensation and local infrastructural development. The study then identified the coping strategies pursued by local communities in response to the impacts of the land acquisition. These strategies include land reacquisition (buying, renting, requesting from neighbours), business as alternative, benefits from investment residue, employment opportunities, assistance from family and increased efforts in farming activities. Lastly, recommendations were given in order to address the socio- economic effects of the land acquisitions on local livelihoods.

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INTRODUCTION

Large Scale Land Acquisition (LSLA) refers to leasing of large tracts of land by domestic/foreign companies, governments or individuals for the purpose of undertaking commercial agriculture. It is a form of foreign direct investment that usually targets developing countries with abundant supply of land and water resources and low production costs (Von et al., 2009). Although such kinds of investments have existed for quite some time, they expanded following the recent food price hike of 2007 to 2008. The crisis endangered the food security of non-self-sufficient nations who traditionally relied on imports from other nations. In response to the crisis, some countries rich in capital but with limited land and water resources (such as the Gulf States) scrambled for securing reliable food supply through increased overseas investment. These

countries offer lucrative loan and aid packages which are much needed by host governments (Wily, 2011). While these countries managed to secure overseas land for investment during this period, the crisis, however, aggravated the vulnerabilities of host countries as these are usually poor and already food insecure (Rahmato, 2011).

Over the past years sub-Saharan Africa countries including Ethiopia, Mozambique, Sudan, Uganda, Zambia and Kenya have started to lease large areas of land to investors of East Asian and Arab countries (Cotula et al., 2009; Spieeldoch and Murphy, 2009; <http://www.ifpri.org/publication/land-grabbing-foreign-investors-developing-countries>, 2009). Large-scale land deals may involve from 1,000 to 500,000 ha and the acquisitions take place in the form of purchases or long-

term leases with terms of 50 to 99 years (Cotula et al., 2009). In the international media this phenomenon is referred to by "land grabbing". The Spanish based NGO "Genetic Resources Action International" was the first group to use the term "Land Grabbing" for these kinds of transactions (Kramer, 2011).

Africa is rapidly becoming a hub for LSLAs with millions of hectares of land leased out every year, mainly to foreign investors. Investors perceive Africa as 'the last frontier' where land can be obtained at low cost, this in turn led to a rush in securing as much land as possible (Aabø and Kring, 2012). A 2012 report based on the Land Matrix Database shows that Africa is the most affected region by land deals where there were 754 deals covering 56.2 million ha of land (Anseuw et al., 2012). The total land sold out/leased in Africa accounts for some 48% of the total agricultural area in the continent, which is approximately the size of Kenya. It is claimed that many developing countries in Africa and beyond seem to be keen on adopting a development model that places LSLAs or agri-businesses supported by FDI at the heart of their policy (Richards, 2013).

Large-scale land acquisition deals take different forms and proceed in a wide diversity of contexts. According to Cotula et al. (2009), transactions labeled as "large-scale" may involve between 1,000 and 500,000 ha. Land grabs are accelerating the development of industrial farming, with multinational companies producing for the world market and further marginalizing small-scale producers and local markets (Sayer, 2010 cited in Nguiffo and Sonkoue, 2015). Increasing evidence is emerging to affirm that the problem of large-scale land acquisition by foreign investors in Africa is following a dangerous trend, which needs to be monitored. Farming matters noted that, in Africa, large tracts of agricultural lands are being bought or leased by foreign investors for far below-market prices. They added that land is the basis of existence for 400 million small-scale farm families. The Earth is their "mother" and needs to be respected and cared for. Thus, farmers will be the first victims of the present rush for land. Global Development Programme in 2010, reported that research findings have indicated that a million Chinese farmers have joined the rush to Africa, and that some of the world's richest countries are buying or leasing land in some of the world's poorest to satisfy their insatiable appetites for food and fuel.

Cameroon is proving particularly attractive to investors in the agricultural sector. There are several reasons for this, not least the fact that, according to FAO statistics, it has about 6.2 million hectares of arable land, of which only 1.3 million hectares (just under 20%) are cultivated. Its appeal also lies in its agro-ecological diversity, easy access to the sea and huge opportunities for irrigation (240,000 ha of land could potentially be irrigated for agriculture, but only 33,000 ha are irrigated at present).

Demand for arable land has increased at both the global and national levels in recent years. In Cameroon, this trend

has manifested itself in two main ways: Growing demand for land for agricultural investments from both large-scale agro-industries and medium-sized enterprises (mainly controlled by local or national elites seeking anything from tens of hectares to several hundred hectares of land). Large-scale infrastructure projects (such as dams, pipelines, railways and deep water ports), forestry and mining concessions and protected areas are encroaching upon the land used by communities (or which they might use at some time in the future). The rapid development of this phenomenon is exacerbating land shortages in rural areas, at a time when demographic growth is set to significantly increase the demand for arable land in rural communities (Nguiffo and Sonkoue, 2015).

The argument that there is plenty of available land in Cameroon is based on the assumption that some land is vacant and ownerless. Proponents of this view have had a decisive influence on the management of the country's land and resources since the start of the colonial period. The Land Law and, in a general sense, the law on natural resources are based on this perception, even though it has been sociologically disproven. Cameroonian communities have traditionally claimed rights to all the country's land, which they regard as part of their customary holdings (Wily, 2011 cited in Nguiffo and Sonkoue, 2015). However, the customary regime has a fundamentally different concept of ownership from the statutory law inspired by the colonial regime, which regards land ownership as essentially individual and gives absolute rights over the land (to use, enjoy its produce or alienate it). Under customary law in Cameroon, the notion of ownership is more complex and nuanced: along with the individual ownership seen in statutory law, certain spaces and resources are collectively owned by the community. Its members are allocated individual rights to these shared assets, but this does not mean that they own them. These common spaces constitute a sort of land reserve for the community; a multi-functional space governed by well-defined management rules that are implemented by traditional institutions which have the power to exclude anyone from outside the community from using it (Ostrom, 1990 cited in Nguiffo and Sonkoue, 2015).

Land is central to local people's development strategies. Most rural activities in Cameroon involve use of local spaces and resources to provide food, shelter and income from agriculture, including rearing livestock, fishing, gathering wood and non-timber forest products, producing charcoal and hunting. Land is not just a productive resource; it also has a cultural value and shapes the identity of the people whose livelihoods depend on it. It is where they live and work, and home to their sacred and religious sites where ceremonies are held to protect the community and maintain people's links with their ancestors. As such, it is a key element in the community's social cohesion and security. It is interesting to note that the changes communities have been forced to make in the way they

manage their spaces and resources have led to their rapid structural acculturation.

The issue of LSLA is a controversial topic; partly as a result of the existence of conflicting views on its impacts in Cameroon. The state claims that the country has plenty agricultural land and that most of the lands issued for investment are 'idle' lands that can better be managed by capitally bigger foreign investors without hampering the livelihoods of smallholders. However in reality, these lands have been used by local communities for generations for farming, grazing or settlement purposes (Nguiffo and Sonkoue, 2015). The assertion that investment lands are previously unused is also flawed as land in many cases could be temporarily left for various purposes, such as shifting cultivation or bush fallowing by local users. As a result, it is feared that the government's agricultural land investment policy could marginalize rural population by depriving them of a crucial asset for their livelihoods.

On the other hand, the state owns all land whereas peasant farmers and pastoralists have only the right to use. For this reason, local communities have no say over LSLAs and hence, the government can transfer any land it wishes to investors. This in turn makes rural communities voiceless because the ultimate power of deciding on the fate of agricultural land vests on authorities. Consequently, these communities could see their livelihoods hampered when large scale land is transferred to investors at the expense of their interests. As a result, this study is proposed to investigate the effects of LSLA on local communities' welfare in the south west region of Cameroon specifically, the CDC Tiko. Therefore, this study aims at determining the socio-economic characteristics of the people, analyzing the challenges faced by local communities and examining the coping strategies adopted by local farmers in response to the lost opportunities due to large scale land acquisition.

THE CONCEPT OF LARGE SCALE LAND ACQUISITION

The issue of land and other natural resources has been topical over the years, especially their impact on the livelihood of the people, households and host communities. Several studies have examined the effects of natural resources such as land on economic well-being of the people (Caldwell, 1977) and their spill-over effects on the society at large. Studies on land and related issues have been in existence for a while (Aabø and Kring, 2012), especially on land tenure system (Dheressa, 2015), farmland cultivation and cropping system (Borras and Franco, 2010), land irrigation, land market and land degradation and pollution (Dheressa, 2015). However, a twist was brought to the land issue with a sudden positive shock to the literature due to the food price crisis of 2007 to 2008 that took many countries unaware, in which they intend to prevent future occurrence. This led to geometric rise in the demand for land for agricultural and other

related purposes.

This sudden rise in the demand for land due to the commodity price crisis was, but one of the series of booms in farm land (Bowers, 1991). This rise in global demand for land is in a large-scale, mostly from countries outside the global south nations. Global south countries, particular Africa, have abundant land that are mostly unutilized, underutilized and arable, which makes them destination points for large-scale foreign land acquisition. Global attention was then shifted to land issue among other natural resources, particularly land acquisition and transaction, and this led to several studies on large-scale land transaction, acquisition and investment.

Many studies have been carried out on foreign large-scale land acquisition and their effects on land ownership and use as well as, livelihood of the local small scale farmers, households and communities. There are some large-scale land investments studies that investigated the development implication of the land acquisition in host countries. For instance, Cotula et al. (2009) evaluate whether large-scale land acquisitions are grabs or development opportunities. They opined that the impact of international land deals is yet to be fully understood despite the media hype and some published research. Their report was a step towards filling this gap with a broad examination of large-scale land acquisitions defined land as purchases, leases or others in sub-Saharan Africa. The report adopted qualitative interviews with major international informants, national inventories of approved and proposed land acquisitions since 2004 in Ethiopia, Ghana, Madagascar, Mali and Sudan as well as, case studies in Madagascar and Tanzania. Also, the report used legal analysis of applicable law and a small sample of land deals. They found out that there had been significant increase in the level of large-scale land activities in the five study countries. Besides, there is dominance of foreign investment and private sector with strong support of government.

Ostrom (1990) quantified the impact of land grabbing on rural livelihoods. They covered 28 target countries that constituted 87% of reported cases and about 28 million hectares. The study finds out that this phenomenon can potentially affect the income of approximately 12 million people globally with implications for food security, poverty levels and urbanization. Despite the study limitations and given assumptions, it gave a much needed initial quantification of the economic impacts of large-scale land acquisitions on rural livelihoods.

Similarly, Datt and Jolliffe (1999) investigate large-scale land investments in Africa, particularly in countries with the Congo Basin Forest of the Central African sub-region. The paper reviews the trends, threads and opportunities using information on land acquisitions in Central Africa, collated from diverse published sources. The study recommends practical considerations for the sub-region to accommodate land acquisition. Furthermore, empirical models derived from the institutional development

framework were employed to evaluate the implication of foreign land deals in Africa by Fresh Produce Journal, Fresh Produce Desk Book (2004).

They used the generalized method of moments to find out that large-scale investments in land have adverse effects on agricultural exports in the selected countries, while the institutional factors are found to be relevant. Suggestion was made on the need to control the rush for large-scale land investments through institutional framework.

A comprehensive review and examination of the effects of foreign large-scale land investment was contained in the report by Datt and Jolliffe (1999) where they assess the impact of land ownership and land grab on development with particular focus on smallholdings in rural areas. It examines different systems of land tenure in the developing world, paying attention to how differences in access to land affect development. The report provides an overview of two political and economic processes that involves a large-scale redistribution of land: land reform and the so-called land grabbing movement. On land reform, it concludes that although it differs widely across countries, it will only be successful when complemented with policies to help small-scale farmers effectively use the land. Also, the report concludes that land grabbing can only be a win-win situation for both investors and recipient countries if adequate regulations are in place.

LITERATURE REVIEW

The rush for land is also seen to exacerbate the water crisis facing developing countries, by increasing demand for water for agricultural production. Christian Aid's 2008 report *Fighting Food Shortage: hungry for change* on food shortages argues that natural resources such as seeds, agricultural land and water should be protected in the face of competition from cash crops and climate change (Skinner and Cotula, 2011). Just how much land is available for agriculture but currently unused is a key question: much of this expansion may be at the expense of forests, and local livelihoods. Small-scale subsistence farmers including the more vulnerable, especially women and members of marginalized groups such as ethnic minorities have been worst hit by the effects of such policies. In the most extreme cases they have been driven off their land and denied access to water and other resources. Instead of protecting these vulnerable people and pursuing pro-poor policies to tackle exclusion, inequality and hunger, governments have focused increasingly on 'export-led growth'.

Christian Aid partner Action for Large-scale Land Acquisition Transparency in Sierra Leone has documented the social and economic impacts of large-scale land investments in Sierra Leone in three lease areas where communities were displaced from their land to make way for sugar cane and palm oil plantations. Community focus

groups in all three areas reported that the costs of the new investments outweighed the benefits. They felt that the increase in job opportunities, corporate social programmes and land rents did not compensate for the lost income from their oil palm trees, increased cost of living, lower food and nutrition security, loss of self-sufficiency and independence, and social and cultural breakdown experienced by many displaced households.

The former UN special rapporteur on the Right to Food, 'Olivier De Schutter', has explicitly linked the commodification of land and associated land acquisitions to human rights, arguing that states are in violation of the human right to food if land appropriation deprives people of access to life sustaining resources. Wisborg (2013) argued that: large-scale mono-crop developments mean a wholesale shift in land use and land access. All too often, this is to the detriment of existing land users. If the environment they depend upon is repurposed, degraded and placed off limits, their ability to produce or to procure food and thus, their right to food will be severely threatened.

La Via Campesina, an international movement coordinating peasant organizations of small and middle-scale producers, agricultural workers, rural women and indigenous communities from Asia, Africa, the Americas and Europe, stated that: Land grabbing even where there are no related forced evictions denies land for local communities, destroys livelihoods, reduces the political space for peasant oriented agricultural policies and distorts markets towards increasingly concentrated agribusiness interest and global trade rather than towards sustainable peasant/small-hold production for local and national markets.

At the same time, however, it is argued by many, including the FAO and the World Bank, that large-scale land acquisitions offer new opportunities for agriculture and development. Developing country governments are actively promoting large-scale land acquisitions as a developmental strategy. The International Federation of Agricultural Producers, representing the interests of the middle-income farmers in the developing world, firmly believes that sustainable bio-fuel production is not a threat to food production, but that it is an opportunity to achieve profitability and to revive rural communities (Borras and Franco, 2010).

In the Pressure and Release Model, coping strategies counteract the progression of vulnerability. Coping mechanisms and strategies are diverse and complex in nature and highly differ by geography (for example, region) and demography (for example, gender, age and class). In order to reduce risk from stresses and shocks, households adapt and diversify their coping strategies. However, these approaches can breakdown during multiple confrontation with hazards either simultaneously or concurrently such as the occurrence of droughts over several years which creates a progressive deterioration of livelihood strategies.

Coping mechanisms influence the severity of the effects of hazards and has the potential to avert disasters. Therefore, coping strategies are a prime example of the capabilities and resilience of humans to reduce vulnerability in the face of hazards.

RESEARCH METHODOLOGY

Presentation of the study area

The study was carried out in the Tiko Council which is one of the five councils of Fako Division in the south west region of Cameroon. The council was created in 1974 as a rural council and in 2004 it was transformed into a Municipal council by virtue of Law No. 018/2004 of 22nd July, 2004. It has a total surface area of 4,840 km² and is bounded to the West by the Limbe council, to the North by the Buea council, to the North-East by Muyuka council, to the East by the Dibombari council in Mungo Division and to the South by Bonaberi council. The council has 28 villages, 16 of which are located in the mainland while 12 are in the creeks. Three of these villages fall within the urban spaces of Tiko municipality. They are Tiko, Likomba and Mutengene.

The Tiko municipality has a coastal equatorial climate. There are two distinct seasons: a long rainy season of about 8 months and a short dry season of about 4 months. The annual amount of rainfall ranges from 2000 to 4000 mm, respectively.

The rainfall pattern provides suitable conditions for both perennial and annual crops to grow; thus, providing ideal conditions for two cropping seasons a year. The rainfall is one of the most important climatic factors influencing agriculture, having the highest effect in determining the potential of the area, the crops grown, the farming system and the sequence and timing of farming operations. It is the supplier of soil moisture for crops. Daily temperatures are high throughout the year and range from 28 to 33°C, respectively. The atmospheric humidity varies with the absolute value and the seasonal distribution of rainfall, being uniformly high throughout the wet season and falling to lower levels during the dry season. The soils of the Tiko municipality are of sandy alluvial and volcanic soil types with high agricultural potentials. The volcanic soils are highly exploited for plantation agriculture. Due to poor farming techniques in the area, there is gradual decline in soil fertility. Tiko municipality is mainly characterized by coastal lowlands with wetlands and flood zones and to a lesser extent by gentle undulating and rolling hills around Likomba and Mutengene. The lowland areas are the sites favorable for human settlement.

The main water courses in the Tiko municipality include River Mungo, the Ombe River, Ndongo and Benyo streams. Many smaller streams feed the main rivers and streams. These rivers and streams empty into the Atlantic Ocean.

The river Mungo has many species of fish and sand that are highly exploited by villagers in the Mungo area. The streams and rivers are also used as sources of water for domestic use (washing, cooking, and even drinking) in most of the villages. There also exist a few springs in the area (1 in Missellelle, 2 in Mutengene at quarter one, and one in Likumba along the bank of Ndongo stream). These springs are also used as water sources for domestic use and drinking. No lakes are found in the area. However, there are many marshy areas, which are temporary wet during the rainy season. Eighty percent (80%) of the forest land of Tiko municipality has been converted to oil palm, rubber and banana plantations by CDC and only few patches of secondary forests exist. The creeks harbor large areas of mangrove forest which is very highly exploited for wood. These mangrove swamps form important breeding sites for fish, shrimp and other important aquatic wildlife. Small patches of grassland also exist in some of the elevated areas (hill tops). There also exist artificial forests of oil palms and Rubber.

Choice of the study area and data collection methods

The area was selected because of the presence of the Cameroon Development Corporation (CDC) which is the major agro-industry within the study area and covers a total of approximately 42,000 ha of land, 38 of which is in maturity stage and of production and employs over 22,036 people, and also because majority of households in this zone depend solely on agriculture for their livelihood. The study population comprised mainly of households from the three selected focal villages (Mondoni, Moqou and Missellele) located in the Tiko municipality.

Primary data, collected using questionnaire administration, was mainly used in the study. The data was collected from 150 households selected using two sampling techniques. The first stage was the purposive selection of the three local villages depending on the location of the CDC and also on the total population of the villages. The second stage of the sampling technique was a random selection of the 150 households. The total population of the Tiko sub-division is 134,649 inhabitants and the total population of the three selected villages to represent the Tiko sub-division is 10,762 inhabitants. Because it was not easy to administer and distribute questionnaires to the total population of the three selected villages, the target population was then considered. The target population was considered to be 3,000 people. The target population was not easily being attained and as such, a certain percentage of the target population was considered as the sample size in which the questionnaires were distributed to obtain information that represented the total population of the Tiko sub-division. 5% of the target population was the sample size of the study. Therefore, Sample size = 5% of 3,000 (target population) $S = 5/100 \times 3000 = 150$.

Based on this analysis, a total of 150 questionnaires were administered and distributed to the three sampled villages (Mondoni, Moquo and Missellele). Out of these 150 questionnaires administered and distributed, 100 questionnaires were realized. Table 1 shows the proportion of questionnaires distributed depending on the population of that village.

The questionnaires were administered using the random sampling technique to the sampled population of the selected villages. Under this technique, the researcher started the administration of the questionnaire to the local council, the delegate in charge of agriculture, then to the local chiefs where she obtained pertinent information which facilitated the establishment of the questionnaires and finally to the local population. In terms of data collection method, the quantitative method was employed in this study in order to get a deeper understanding on the effects of LSLA. Quantitative methods use numerical data analysis to classify features and to satisfy the objective of the survey. For this study I employ a questionnaire, and secondary data review methods. Questionnaire survey is a quantitative method used to explain and describe simple descriptive statistical analysis of the farming community (Bowers, 1991). Detailed questionnaires were administered to households of the focal villages. These respondents were selected because they are directly affected by the LSLA and well situated to give us general and complete information concerning the topic. This enabled us have a general knowledge on the effects of LSLA.

Secondary data was obtained from the review of documents and published works, including government legislations and policy documents as well as, works produced by international agencies (such as the World Bank and FAO). Documents from Tiko council, books and documents from university library were used. Online sites of international activist organizations, media outlets journals, articles and other web sources about the topic were also accessed to get more information and concepts related to the study. We actually focused on data gotten through a detailed questionnaire which was administered to the households of the zone of intervention. To achieve this, the quantitative data collection method and techniques was used to get information.

RESULTS AND DISCUSSION

The socio-economic characteristics of respondents

The majority of household heads interviewed were males (78%), while the others (22%) were females. The high percentage of men over women is attributed to the fact that men are highly involved in farming activities than the women and are traditionally heads of households capable of supporting problems and providing solutions to the various problems particularly in the rural areas. This is also

because women are usually more vested with outdoor farm activities and may face difficulties in handling jobs which demand enough energy (Figure 1).

Distribution by age group shows the households' age distribution, in which most of the households fall in the age group of 45 years and above (87%), followed by those who fall between the age range of 35 to 45 years (13%). This shows that the majority of the households were made up of elderly people who had experience on matters concerning land and have the ability to own land through inheritance, renting from other landlords or buying for farming or construction. The young and energetic people were not involved in the sample as a result of their inability to get land at the appropriate locations for farming or construction, and this has forced them to migrate to big towns in search of white collar jobs, to learn Artisanal jobs, like tailoring, barbing and even doing trade. In distribution of respondents according to marital status, we see that 76% of the respondents were married and just 24% were single (either divorced, widow, widower or never married). This is due to the fact that the marriage rights were not complicated. The major requirements were a goat or two, bag of salt, teen of cooking oil, good loins and an affordable amount of cash.

Respondents were characterized by family size; the analysis showed that 9% of the respondent had a small household size (< 5 persons) (the case where the respondent lives by himself), 33% of the household was medium in size (between 5 to 10 persons), while 58% of the respondent were of a large family (the case of where the respondent was living with relatives), while distribution of respondent was according to the level of education. Figure 1 shows that out of the total household surveyed, 67% of the households had attained at least the primary education, 22% had attained the secondary level and only few households (11%) had higher level education. As a result, the majority of the respondents could read and write; the reason why questionnaires were considered essential for the data collection.

As regarding the means of livelihood, the farming activities (both employment in others' farms and self employment) are the major economic activities of the sample households, accounting for 51% of all incomes generated. The other activities are retail/petty trading and salary employment which account for 32 and 17%, respectively. This shows that farming activities are the major economic activities as well as, the main sources of household income in the rural areas especially in the studied areas. As such they constitute a major basis of livelihoods of the communities in the area. Farming activities in Cameroon are seasonal, that is the dry and rain seasons, however, they are by far the biggest income generators for the local people. In fact, Agriculture is the main pillar of Cameroon's economy. It accounts for 43% of GDP, employs 70% of the working population and generates more than one third of total export earnings

Table 1: Population of sampled villages in Tiko sub-division.

Villages	2010 population statistics	Number of questionnaires distributed	Number of retrieved samples
Mondoni	3468	45	32
Moqou	1560	35	20
Missellele	5734	70	48
Total	10762	150	100

Source: Computed by author from demographic office, Cameroon.

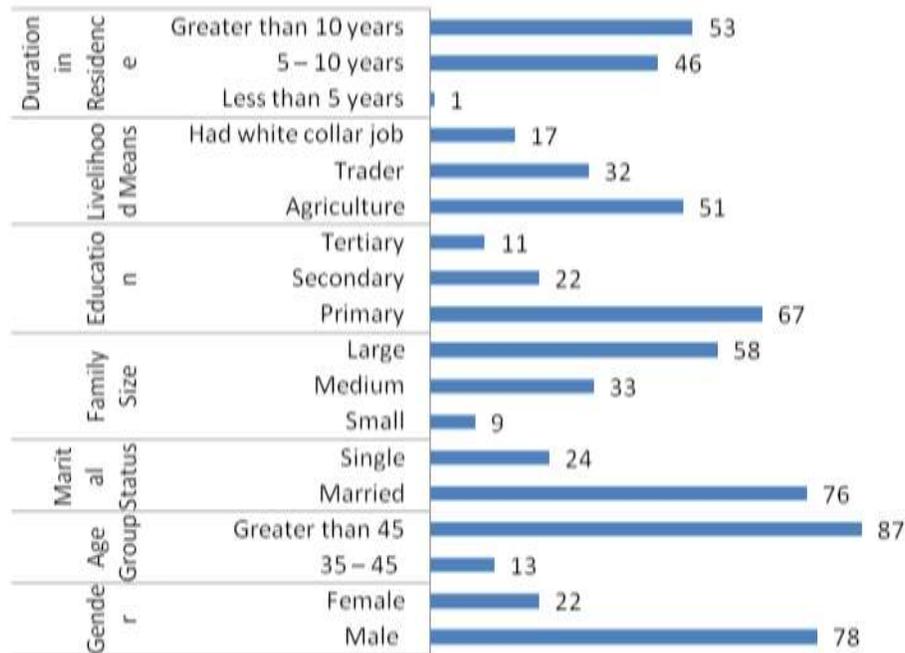


Figure 1: The socio-economic characteristics of respondents in percentage. Source: Author form field survey data.

(Fresh Produce Journal, 2004). This implies that the investing company does not employ the local people to work in their company and as such do not give them that privilege to work as those whose lands were acquired for the establishment of their project. They are being left all on their own to suffer before grasping a job in the company by going through the same procedures of recruitment as the outsiders.

Following respondents according to the duration of stay in the area The period of stay of the respondents in the three focal villages (Mondoni, Moquo, and Missellele) was necessary in this study since some information such as the history of the land acquisition by the CDC and how it has affected the local people could be obtained from the experienced people who had lived in a considerable length of time in their different localities. Lastly, the figure shows that 1% of the respondents agreed that they lived in the area for < 5 years. 13% equally held that they had lived in the area for at least 5 to 10 years. The majority (86%) of the respondents were of the opinion that they lived in the area

for more than 10 years. This shows that about 86% of the population could provide reliable information on issues concerning large scale land acquisition and the effect on the local livelihood.

Challenges faced by rural dwellers due from LSLA

Table 2 shows the majority of the households (98) indicated that they lost land they used due to the LSLA. Only 2 of the households surveyed indicated that they lost no useful land as a result of the LSLA. Thus, it can be concluded that almost all households in the study area had been benefiting in one way or the other from the land which is now transferred to the CDC. These households in the areas used the land mainly for agriculture from which they generated their incomes and also received substantial benefits. Consequently, there was huge discontent among the local communities following the loss of their lands and there were even conflicts with the government as well as,

Table 2: Challenges faced by rural dwellers due from LSLA.

Variables	Absolute frequency	Ratio of challenges		
		Challenges	Non-challenges	Ratio
Marital Status	100	24	64	1: 2.60
Loss of land	100	98	2	1: 0.020
Infrastructural Development	98	94	4	1: 0.040
Compensation	98	94	4	1: 0.040
Employment opportunities	98	75	23	1: 0.300
Living Standard	98	98	0	1: 0.00

Source: Author computed from collected field data; N/B: Ratio = Challenges: Non-challenges.

with the company itself. These conflicts led to the destruction of lives and properties in some villages like Mondoni. The loss of land of the local communities has being a great challenge to them since it was from these lands that they made their earn means.

Another challenge faced by the local communities was the lack of compensation. The land that was given to the CDC was mainly acquired traditionally by the local people. This in turn makes it difficult to challenge the investors or the government against the land transfer since such land use rights has no legal protection. Besides, absence of legal protection for communities makes it difficult for the local people to sue the investor for the lost opportunity and get compensation since all lands belongs to the government and can give to anybody at any time. Besides the Cameroon's 1996 Constitution shied away from laying down clear land rights principles, beyond reiteration of conventional generalities as to 'the freedom of settlement', 'guarantee of the right to use, enjoy and dispose of property' (in accordance with the terms of the law which then restricts this) and 'protection against deprivation of property, save for public purpose and subject to payment of compensation', again under (limiting) conditions to be determined by law. The constitution does not mention customary land interests. It does pledge to protect the rights of indigenous populations but does so only in the preamble. Moreover, the context is ambiguous, implying narrow responsibility to minorities and 'indigenous peoples', raising questions as to who is included in such protection. However, the Section 7 of Ordinance No. 2 of 1974 declares that 'bona fide owners and occupants of public property may not be dispossessed thereof unless the public interest so requires and subject to compensation' (Wily, 2011).

In the study under consideration, compensation was made in few occasions and to some victims (Cotula et al., 2009). The most common type of compensation given to these individuals as a result of land acquisition was cash payouts. But, the amount of compensation was too little relative to the loss. Few individuals who received compensation in the form of cash were considered as traitors since the majority of them agreed not to collect the money because the size of the compensation was not

sufficient to adequately cover the losses and the individuals claimed they deserved more. Employment opportunity is another area of evaluating the challenges faced by the local communities as a result of LSLA. The corporation constitutes a workforce of over 22,036 employees, including temporary workers, making it the second highest employer after the state of Cameroon. It was expected to give privilege to the local people in their various areas of intervention by generating different types of direct and indirect employments for the rural dwellers. However, some of the large scale agricultural investment projects (Herakles farms in Cameroon) which are now operational in Cameroon provided employment opportunities to local people in the form of permanent and temporal employments (Rahmato, 2011).

Contrary to claims made by the investor to provide significant employment opportunity for the local people, in this study only few households said they benefited from job opportunity in the company but from their own personal efforts (Gang et al., 2004). We can therefore say that the expected benefit of direct and indirect employment to the local people seems far from being reality since there is a tendency to bring workers from other areas than employing the ones in the communities. Although some local people were employed as casual laborers during harvesting, classifying the Bananas and other heavy works (27%), most of the workers who carry out the skilled jobs came from different areas of the country. The justification given to the local people by the investor for not employing them is that there is no skilled human power in the communities.

As for what concerns infrastructural development, there have been no significant prove of infrastructures in the communities as the result of the LSLA (only 4 of the respondents claimed that they benefited from infrastructures built by the company). Such infrastructures as school, electricity, good pipe bone water, roads and health care centers were promised by the investor to the local people. Although the area has seen to some extent, the construction of paved road, and the provision of water in Moquo even though not frequent, there are no schools, markets or health centers built in the various villages. The only infrastructures provided by the investor are paved

road connecting the main road to the villages. Even the road built was just to connect the company's premise with the main road and was not primarily intended for helping the local communities. The water provided by the investor company was not portable and the villagers were not having water at all times because CDC pumps the water during their working hours to the village (Moquo) and when they close the village do not receive water again till the next day.

Finally, the living standard of the local people was explained using the crop production and supply in their communities. Table 2 shows that there has been no evidence of increased crop production and supply since none of the respondent witness an increase but instead a decrease. The coming of the corporation has made life so tough for the local people since the company's main aim is to produce export crops (Bananas, Rubber and Palm oil) which are destined to foreign markets. The food crops (cocoyam, yams, cassava bananas and plantains produced by the locals and from which they could feed their families and even others through the sales of the surplus are being replaced by the exports crops which they do not consume. As a result of this, the living standards of the people have dropped due to high cost of living since the villagers now buy all the food stuffs they need either from their local markets or from the urban markets. The government thus encourages LSLA to the detriment of the local population's food security since it boosts its GDP through the export of their products and as such provides more benefits to them than those who do not intend to export (small scale farming) (Rahmato, 2011).

Consequently, large scale agriculture is driven by priority for exports and foreign earnings and tends to ignore the need for domestic food security. Thus, agricultural investment projects are criticized for not having formal and informal obligations to contribute to the food security needs of the country (Dheressa, 2015). Despite the challenges faced by the local people as a result of LSLA, getting a wife or a husband was not a major problem to them since the majority (64) of the respondent said they were married. It was not a big deal because only the traditional marriage was highly valued and the bride's price consisted of a goat or two, a teen of cooking oil, a bag of salt, good loins for both parents and an affordable sum of money which the majority confirmed was not difficult to provide.

Coping strategies from lost opportunities

Investment on individual holding forces smallholders to change their economic activities, depending on the options available at their disposal (Sayer, 2010). They adopt some coping strategies to overcome the lost opportunities as a result of the LSLA. Some households diversify their livelihood strategies, while others strengthened existing ones.

Prior to the land acquisition, some households were forced to change their land holdings. Some rented and bought land in order to meet up with the household demands. Most of them changed from being direct land owners to tenant and others maintained their status through buying. They thus continue in their farming activities and cultivating adequate crops for household consumption and sale. However, 2% of the population agreed using land reacquisition as a means to cope with the loss opportunities since it enabled them to produce adequate crops for their household consumption rather than purchasing it from the market to compensate the lost opportunity.

Doing business is the other alternative used by some households to cope with the loss of useful land. Households who had been using the investment land in various ways have now switched to other economic activities to sustain their livelihood with some households resorting to petty trading. Some farmers quitted farming altogether following the land acquisition. Such farmers are mostly those who relied solely on the land (now given for investment) for their livelihood and are now seeking other means of living (Dheressa, 2015). However, 14% of the household said doing business was not the best since it is not as beneficial to them as when they had their lands.

There are also other strategies being pursued by some households to deal with the effects of the LSLA. These include seeking either direct or indirect employment in the company itself or in urban areas, although only few local people have secured jobs. Some local people also migrated particularly to urban areas seeking employment opportunities, although migration occurred prior to the land acquisition, it became however more common following the LSLA in the area. Such migration is usually destined to major urban areas where people can get better employment opportunities and make a living from it. Table 3 shows that 91% of the total population testified that an employment opportunity was the main coping strategy they employed prior to the loss opportunities.

More so, as a result of the loss of agricultural land, some local people also received support from their family members. Some family members who migrated to other areas prior to the LSLA go in search of jobs to make a living for themselves as well as, their dependant families back home. Many of them work as hired laborers in distant towns and cities while others set up their own businesses and send back remittances to their families. Some others depend on help from relatives, friends or neighbors to satisfy their financial needs and their food demand in the household. But according to the Table 3, it was not a good coping strategy since 53% of the population did not find satisfaction in doing so because their household needs were not attained. Benefits from investment residue (bananas, palm oil, and chaffs from palm nuts used in making fire and some end products from rubber) are also another coping strategy undertaken to overcome the loss of farm land in

Table 3: Coping strategies from lost opportunities.

Variables	Absolute frequency	Adopted coping strategies by respondent			
		Coping	Non-coping	Coping difference	Coping (%)
Land reacquisition (buying, renting, requesting from neighbours)	100	0.29(29)	0.27(27)	0.02(2)	2
Business as alternative	98	0.42(42)	0.56(56)	-0.14(14)	-14
Benefits from investment Residue	96	0.04(4)	0.92(92)	-0.88(88)	-88
Employment opportunities	23	0.95(22)	0.04(1)	0.91(21)	91
Assistance from family	98	0.23(23)	0.76(75)	-0.53(52)	-53
Increased efforts in farming activities	100	0.02(2)	0.98(98)	0.96(96)	96

Source: Author computed from collected field data.

the areas. But 88% of the household were unable to cope with this because its end results were minimal and were of little or no help to the local households.

Finally, there are also other strategies being pursued by some households to deal with the effects of the LSLA. These include increased efforts in farming activities like the use of seeds that are more resistant to disease, drought and flooding; information from trusted local sources about more productive farming techniques and technologies; greater access to markets; and make use of government policies that serve the interests of their farming families. They also transform their farming methods, use more effective tools, embrace and adopt sustainable practices that help them grow more with less land, water, fertilizer, and other costly inputs, while preserving natural resources for future generations. Thus, 96% of the total population has been increasing their efforts in farming activities prior to the loss opportunity so as to better feed themselves and their communities.

LSLA and well-being of the local communities

Table 4 shows that the LSLA at a 0.000 (1%) level of significance has an essential effect on the standard of living of the rural inhabitants. The coefficient of determination for the model is found to be (19.6%), that is, LSLA contribute by (19.6%) in the changes that took place in the lives of the households. This implies that there exist a negative correlation between LSLA and the standard of living of the household at a 0.000 level of significance. The immediate economic effects of the land acquisition on the communities' means of living are discussed in relation to the lost of farm lands. Following the LSLA in Tiko, some households lost access to cultivable lands, which they customary held. Prior to the transfer, local communities had been making a living from the land through cultivating crops and other uses. Therefore, the land used to contribute for generating significant income and food production to the local people (Dheressa, 2015).

Most of the lands given out for investment purpose were

farm lands, on which some farmers had been growing different crops and very few of the lands were occupied with constructions. The destructions of these farm lands lead to a significant loss given that the crops cultivated were for consumption or for sale. Some local farmers cultivated cocoyam, cassava, yam, plantain and some cultivated cocoa, which were sold to generate income. However, with the establishment of the CDC, the local farmers now buy these crops from the Local and urban markets or cultivate them on rented farms due to loss of farm land. In response to the lost opportunities from the land, some farmers started buying and renting other farms around or far away from their villages so as to compensate the loss opportunities. This in turn costs the farmers more in terms of time, money and production as they have to pay significant amount of money for both bought and rented lands and also pay transport fair to the far away farms. Consequently, the loss of resources of small farmers leads to a reduction in food production, income and livelihood deprivation both in the present and future.

Table 4 also shows that there exist a positive correlation between gender and the living standard of the local inhabitants at a 0.005 (1%) level of significance. The coefficient of determination stands at (47.9%), that is to say gender contributes 47.9% times in ameliorating the standard of living of the people. However, being a male or female has no negative impact on their means of living but instead a positive one since both men and women puts in more efforts in order to better their living standards despite the loss opportunities either by doing trade, renting or buying land to cultivate so as to meet up with the family needs or working with the corporation for monthly salaries in order to satisfy their wants and end means, consequently, amelioration in the living standard of the rural inhabitants.

More so, the Table 4 shows that age group has a significant effect on the people's means of living. It shows that the age group strongly affects the standard of living of households at a 0.012 (1%) level of significance with a coefficient of 53.1%. This therefore implies that age group negatively affects the standard of living of the people 53.1%

Table 4: LSLA and well-being of the local communities.

Variable	Unstandardized coefficients		Standardized coefficients	T	Sig
	B	Standard error	Beta		
Standard of living of rural inhabitant lost opportunities					
Large scale land acquisition	-0.196***	0.061	n/a	-3.22	0.000
Gender	0.479***	0.140	0.701	3.427	0.005
Age group	-0.531***	0.179	-0.635	2.961	0.012
Marital status	-0.087	0.167	-0.087	-0.524	0.061
Household size	0.146**	0.069	0.367	2.127	0.055
Educational level	-0.067	0.066	-0.193	-0.1009	0.333
Income generation	-0.036	0.53	-0.117	-0.678	0.511
Number of years lived in the area.	0.589***	0.140	0.704	4.220	0.001
Compensation	0.774***	0.156	0.774	4.949	0.000
Employment type	0.550**	0.241	0.398	2.281	0.042
Other benefits	0.288**	0.133	0.366	2.157	0.032
Constant	-2.055*	1.103	n/a	-1.863	0.087
R ²	0.7671	n/a	n/a	n/a	n/a
F-Statistics	22[3.940; 0.000]	n/a	n/a	n/a	n/a
Total observation			100		

Source: Author, from field data, N/B: the ***, **, * represent 1, 5 and 10% significance.

times. Thus, there exists a negative correlation between the two (age group and standard of living of rural inhabitants). This is a major problem because most of the inhabitants fall between the age range 45 and above which constitutes the dependent age group. It is argued that poverty increases at old age as the productivity of the individual decreases and the individual has few savings to compensate for this loss of productivity and income. However, the relationship between age and standard of living may not be linear, as would be expected that incomes/expenditures would be low at relatively young age, increase at middle age and then decrease again. Thus, according to the life-cycle hypothesis, we would expect that poverty is relatively high at young ages, decreases during middle age and then increases again at old age (Datt and Jolliffe, 1999; Rodriguez, 2002; Gang et al., 2004). Thus a fall in the standard of living of the rural dwellers due to a high dependency ratio since the working age group is called upon to cater not only for the aged but also for the young.

Moreover, we see from the table that the higher the size of a household or family the less poor it is, highly significant. This is to say there exist a positive correlation between household size and the living standard of the local inhabitants at a 0.055 (5%) level of significance. The coefficient of determination stands at (14.6%) that is to say household size contributes 14.6% times in the amelioration of the standard of living of the people. Large households (>10 persons) do enjoy more labour force which make them significantly less poor than those small homes (<5

persons). The largest household that has a labour force of 7 or more persons compared to the smallest, with two or three persons, is more than three times less poor; and a household with more labour approaches the biggest in well-being. This has provided relief on necessary but time consuming chores like fetching water, firewood and child minding etc that enabled parents do other jobs (Kamuzora, 2008). In reality the existing labour force including children living and working away from home send remittances in cash or kind, the total of which make for what is seen as less poverty in bigger families. All these are observed in the rural areas. More important is that the interaction of household size and proportion in the labour force are significantly associated with high living standards.

From the table, it is seen that number of years lived in the area and the compensations the local people received are highly significant at 0.001 (1%) and 0.000 (1%) respectively. Their coefficient determination stands at 58.9 and 77.4%, respectively each implying a positive correlation between them. The duration of a household (>10 years) in a particular village gave them certain advantages compared to those who had lived for < 5 years. Due to their duration and familiarity with neighbors, they could acquire land (buy or rent) at much reduced cost and also change their working status from temporal to permanent workers especially in the corporation. Even the cash received as compensations could help some of them purchase land and also start up a trade which will in turn increase their household incomes, food consumption and as

a result elevate their standards of living.

Furthermore, Table 4 shows that there is a positive relationship between employment type and standard of living of the households. Meaning that it is significant at 0.000 (5%) level of significance with the coefficient determined at 55%, implying that employment type and living standard of the people have a positive correlation. The positive effect may be particularly high if the expansion in employment is twisted away from low-paying jobs. On the other hand, however, the poor often generate a significant share of their income from labor services. Higher levels of earnings resulting from higher employment levels enable workers to spend more on education and skill formation of their children as well as, requisite infrastructure, thus, raising the productive capacity of the future workforce, and creating necessary conditions for achieving higher levels of economic growth, leading to poverty reduction (Islam, 2018).

Finally, Table 4 shows that other benefits like water supply, roads, and the ongoing construction of the market has a positive effect on the standard of living of the people. They correlate positively at 0.032 (5%) with a coefficient value of 28.8% implying it contributes positively to their well-being. The presence of these roads though paved roads help in the transportation of persons and goods from the farm or houses to their local markets and neighboring villages for exchange. This lead to a drop in the cost of living since the local people could get to the market with ease and in time to sell their goods, thus, generating more incomes for their households and as a consequent an increase in living standards.

Conclusion

This study examines the socio-economic effects of LSLA on local livelihood, the case of CDC banana plantations Tiko in the Tiko sub-division, south west region of Cameroon. This is done through the Sustainable Rural Livelihoods framework as earlier discussed. The framework enumerates five key elements of sustainable livelihood (that is, contexts, conditions and trends; livelihood resources, institutional processes and organizational structures, livelihood strategies and livelihood outcomes). Thereafter, the complex interactions and links among these elements were analyzed and the findings presented.

The first finding is related to livelihood resources, which determines not only the livelihood outcomes but also livelihood strategies to be pursued. In this regard, the three major livelihood resources identified are human, economic and land resources. With respect to human resource, the majority of the households studied have roughly equal proportions of people in the productive and unproductive age groups. In terms of economic resources, most of the households are engaged in subsistence farming and are mainly dependent on farming activities for their income as

well as, livelihoods. However, there are also non-farm activities such as trading, non-farm wage and salary employment that are undertaken by local communities in the area, all of which provide households with income and employment. Meanwhile, the major crops grown by the households include cocoyam, yams, okro, cassava and maize. These crops are the main sources of consumption food and also generate income from sales. Most of the crops used for household consumption are grown on farms customarily held by households, whereas some of them are purchased from the market. Besides, due to the LSLA, local communities lost customarily held communal lands and this in turn reduced land holding among households in the areas.

As observed in this study, the LSLA has large negative effects on local livelihoods and based on the analysis, it was noticed that the CDC banana projects has no significant benefits at local level. First, there is no significant increase in crop production and supply in the study area as a result of the project. In fact, the company's productivity has not been satisfactory as determined by subsequent crop failure. Even if crop production is significant, the expected benefit to the local people is going to be negligible as the company intends to export much of it. Secondly, there is no significant job opportunity to the local communities as a result of the investment project, since the company employed only a couple of workers who came from urban areas or abroad and gives no priority to the local inhabitants. Finally, there was also no significant infrastructural development in the study area as a result of the project.

The only infrastructure built by the company was the road linking the district to the main road, but this too was intended to connect the project site to the main road; provision of water was not frequent and hence was not intended to benefit local communities. The project also has negative effects on the local livelihoods because it resulted in loss of vital livelihood resources to the local communities like crop land on which they had been growing crops both for household consumption and sale.

Consequently, some households were forced to buy crops from the market to compensate for the loss and this incurs them additional cost. Following the land acquisition, land rent and lease prices have also increased, further aggravating the economic impacts.

Finally, the study also identifies the different livelihood strategies pursued by local communities in order to cope with the effects of the LSLA and sustain their livelihoods. The most common coping strategies are land reacquisition (buying, renting and requesting from neighbours). Business as an alternative, benefits from investment residue, employment opportunities, assistance from family and increased efforts in farming.

From the aforementioned observation, the large scale land acquisition in Tiko has not brought any significant social benefit to the local communities. Besides, the CDC

banana plantation has negative effects on local livelihoods. However, such negative effects can be minimized and the plantations can become beneficial to the local communities if proper measures are taken.

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