



PLANTATION AGRICULTURE DYNAMICS AND IMPLICATIONS ON GRASS ROOT DEVELOPMENT IN FAKO AND MOUNGO DIVISIONS

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ABSTRACT

Plantation agriculture has been at the forefront of development in many countries of the South. Agro-industries in Cameroon are not an exception. The Cameroon Development Corporation (CDC), Cameroon Palm Oil Industry (SOCAPALM), Plantations-du-Haut-Penja (PHP) and Boh Plantation Limited (BPL) located in Fako and Moungo Divisions adjacent to the Cameroon Coastline, have been involved in industrial agriculture production with wider implications on their host communities and Cameroon at large. These corporations have engaged in a wide portfolio of socio-economic activities of varying degree of remuneration to the population and rural development. The agro enterprises have contributed to education and health promotion, rural electrification and job creation amongst others in the Southwest and Littoral Regions of Cameroon even though their activities have had many negative outcomes on the socio-economic development and environment of the area. This study examines the impact of the activities of the corporations high lighted on their host communities. It employs quantitative and qualitative techniques for data collection and analysis of its findings. The results show that the impact of plantation agriculture on the communities where they were established have both been beneficial and detrimental to grass root development necessitating policy guidelines to curtail the negative impact and improve on the development.

KEYWORDS

Plantation Agriculture, Development impact, host communities, Fako and Moungo Divisions

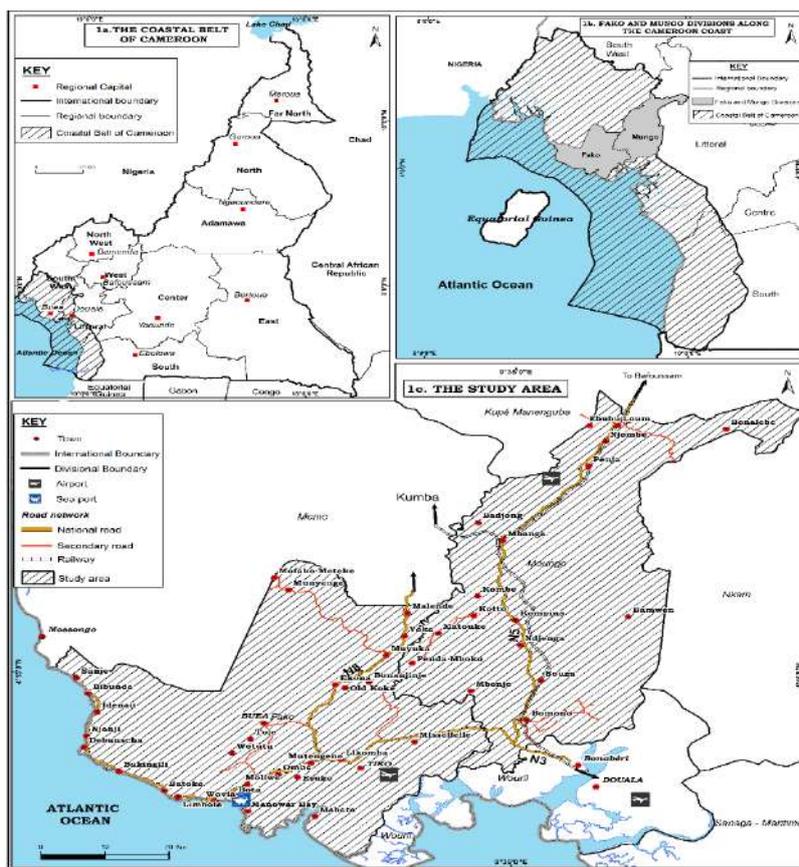


INTRODUCTION

Agro-industrial development is becoming a marked feature of many countries in the South. Cameroon is not an exception. Fako and Mounjo Divisions along the Coastal belt of Cameroon with their fertile volcanic soils, conducive climate, labour supply and dense transportation network has been the location site of agro industries such as the Cameroon Development Corporation (CDC), Cameroon Tea Estate (CTE), Cameroon Palm Oil Industry (SOCAPALM), PHP and BPL. These enterprises specialised in the production of palm oil, bananas, rubber and tea have influenced Cameroon's national development and the livelihoods of its host communities through the transformation of the areas into major development poles. In this process, the impact of the activities of these agro plantations has been positive and negative on the grassroot communities where they are located. This paper hypothesises that the impacts visible in rural income enhancement, the provision of basic educational, health and recreational services, have contributed to rural development even though land use conflicts, pollution and insecurity are challenges the population of the areas have had to grapple with. Plantation agriculture in Cameroon have since the colonial period been a driver of rural development and livelihood enhancement. However, the economic crisis that hit Cameroon in the 1980s leading to the privatisation and restructuring of these agro-industries in 1990 and insecurity ensuing from armed conflicts in the Northwest and Southwest regions of Cameroon have hit the sector leading to destruction of socio-economic infrastructures, decline of the plantation and development of host communities. Konings(1996) have pointed out ethno-regional crisis that stemmed from the privatisation of the CDC as other influential factors. These factors in combination have led to decline in the activities of these agro industries. The outcome being inconsistency in workers wage payment, abandonment of infrastructure maintenance (neglect of workers camp refurbishment, rundown of plantation assets), low wages, labour instability and decline in crop output. These factors often translate into neglect of development projects in plantation communities that highly depend on the benefits offered by agro industries for survival. Studies carried out on plantation agriculture and developments have used quantitative and qualitative approaches to investigate on their roles in rural and national development. This paper explores geospatial data alongside field surveys to map out the activities of these enterprises and outcomes on development. The objective is to examine how these enterprises influences the livelihood of its host communities, challenges faced and policy guidelines to redress the negative outcomes.

Location of study sites

Fako and Mounjo Divisions are located along the coastal belt of Cameroon. Administratively, they are found in the Southwest and Littoral Regions of Cameroon respectively. They fall between longitude 9.4° and 10.2° degrees and latitude 4° and 4.5° North of the Equator. Both divisions are adjacent to mount Cameroon along the Cameroon volcanic line (Fig.1).



Source: Adapted from Cameroon Atlas, 2011/NIC

Figure 1: Location of Fako-Mougou Divisions along the Cameroon Coast

I. MATERIALS AND METHODS

Data for this paper is tapped from multi-sources using quantitative and qualitative methods, analysed and explore using descriptive techniques. Through a systematic random sampling of estate workers, the perceptions of 132 respondents on the developmental impact of the agro plantations on their communities has been done with the aid of questionnaires. Through field surveys and observations, data for infrastructures were collected. Workers operating in the plantations from plantation host communities were interviewed to know their perceptions of the developmental impact of agro-plantations considered in the study area. Employment statistics, patients recorded in health units, and pupils and students in schools were obtained from the human resources office during pilot visits in plantation estates. Satellite images from Global land Cover Facility helped in the identification of the spatial distribution of plantations. The excel spreadsheet was used for data treatment and transformation into graphics, ERDAS imagine for satellite image treatment and ArcGIS for cartographic map work.

II. RESULTS

II.1 Identity of Plantation Workers

The study identifies different corporations involved in agribusiness in Fako and Mougou Divisions. These are the CDC involved in the production and export of rubber (*Hevéabraziliensis*), palms (*Elaeisguineensisjacq.*) and banana (*Musa sp.*), SOCAPALM producing rubber, palms and oil, PHP involved in banana, flower and white pepper production, the Cameroon Tea Estate producing tea and

Boh Plantation Limited (BPL) specialized in banana production are found. These plantations absorb many workers of diverse socio-demographic backgrounds identified.

Participation in plantation agriculture is not sex, marital and educational discriminatory. The activity in corporates the male and female gender of different backgrounds. This duality in rural labour employment is a common practice in both the Fako and Mounngo plantations. The educational backgrounds of male plantation workers show that 34% attained primary level, 29% secondary and 6% higher education. For the women the distribution was 17% for primary, 12% secondary and 5% higher education. The male workers that represented 70% of the labour force had 39% married, 28% single and 3% divorced. Out of the 30% female workers, 16% were married and 24 % single (Fig 2).

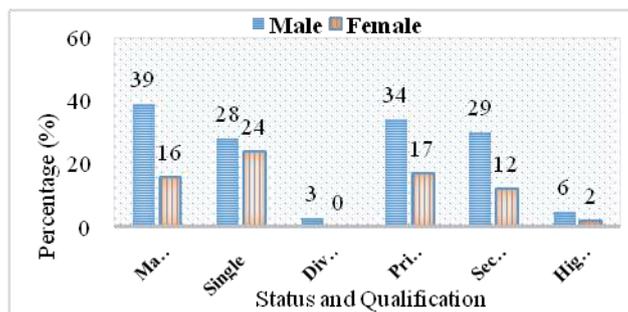


Figure 2: Socio-demographic Characteristics of Respondents in Agro-Plantations

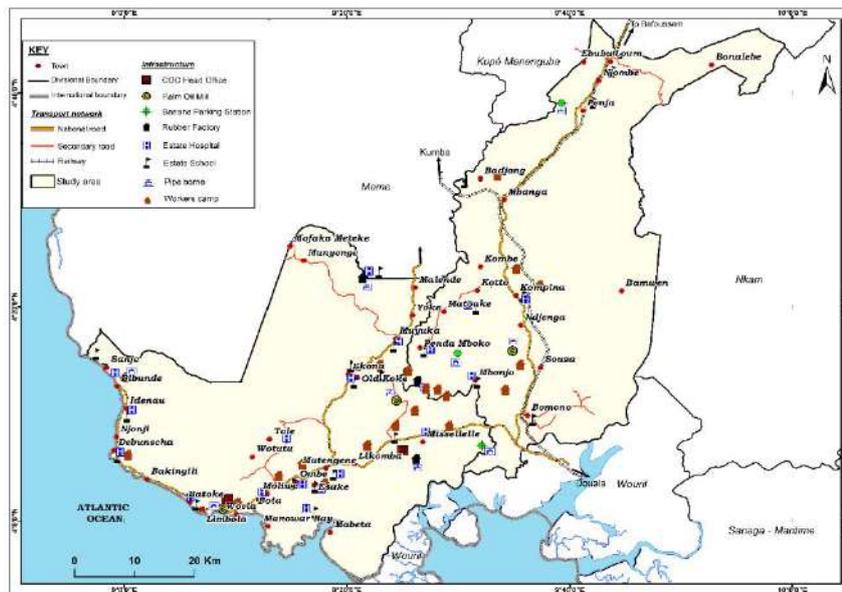
Source: Fieldwork, August, September and December 2020

A significant proportion of male and female labourers (11%) are migrant workers from the North West Region with the South West Region having 6%. The restructuring of CDC in 2016 led to the recruitment of several Cameroonians from the Francophone regions to serve as field assistants and estate managers. This innovation generated many conflicts with the indigenes hosting the plantations. In SOCAPALM estates for instance, plantation conflicts erupted between indigenous communities of Mbonjo (Abo) and the estate for recruiting migrant workers from other regions of Cameroon.

II.2 Impact of Plantation Agriculture on Social Development

The establishment of agro-industrial plantations in Fako and Mounngo has contributed to the creation of social amenities and benefits. These services are aimed at improving on the quality of life for the local populations that have leased out their lands for the establishment of the plantations. Some of this equipment and opportunities are schools, health units and hospitals, workers camps and employment for plantation host-communities and the workers' children. Figure 3 shows the distribution of basic infrastructures provided by different agro-industries.

In state-owned agro-industry such as the CDC, all plantation estates have primary and secondary schools and health units for plantation host-communities. Multinational companies also provide basic services such as education and health to plantation host-communities. For instance, in the Mounngo Division, PHP created educational institution such as "Les Tisserins", which serves plantation communities in Njombe. These social services are for the benefit of the rural poor.



Source: Basemap from National Institute of Cartography, Fieldwork data, 2020

Figure 3: The Distribution of Socio-economic Infrastructures in Fako and Moungo Plantations

Creation of Schools

In the plantation of Fako and Moungo Divisions, schools are either located in labourers’ camps or the midst of large plantations to reduce distances covered for schooling. For instance, in the CDC and SOCAPALM plantations, primary and secondary schools (Table 1) are located in the heart of Penda Mboko, Tiko, Kompina, Matouke, Dibombari estates etc. In these plantations playing grounds exist for the educational needs of the children of workers and plantation host-communities (Fig.4).

Table 1 and Photo: Some Schools created in the CDC Estates in Fako Division.

Schools	N ^o of Students/ Pupils	No. Of Teachers
GBHS PendaMboko	482	31
GBPS Camp IV CDC	397	9
GBPS Camp II CDC	816	16
GBPS Kompina CDC	268	9
Total	1,963	65



Photo 1: GBPS Camp II CDC Penda Mboko Note the Educational infrastructures- 'A', in front of a Rubber plantation- 'B', and playing ground- 'C'

Fig. 4: Contributions of Plantation Agriculture on Education promotion-Fako Division

Source: *SOCFIN, 2014 and Fieldwork 2021

Despite the creation of these schools, several challenges are faced. In Fako Division for example, many of the schools have been deserted, closed or burned down by separatist fighters fighting for their independence. Only in plantations in Moungo Division are schools operational because the area has been less affected by armed conflicts. In an interview granted to the Head Teacher of GBPS Kompina-CDC, it was revealed that:

“Most of the parents do not promote children’s education. children attain school without equipment (exercise books and textbooks). For parents, working in the plantations is the best option for their children”

Also, several of the schools have been disserted by teachers due to armed conflicts. In 2016, 64.6% of the populations of the estates were attending schools without teachers represented by 2.14%. The low level of teacher’s attendance was due to poor government policy and bad corporate governance in the management of these educational institutions located in plantation estates (fig. 5).

Table 2 and photo 2: Some Educational Institutions in Moungo Plantation Estates

MOUNGO PLANTATION ESTATES		
Indicators	SOCAPALM*	SAFACAM*
Schools	No.	No.
Nursery	11	4
Primary	22	10
Secondary	5	3
Students/Pupils	7676	3507
Teachers	274	114



Photo 2: GBPS Bomono

Note: school pupils- ‘A’, school buildings where pupils are taught- ‘B’ in front of large rubber plantations- ‘C’.

Source: Ojuku and Mumah 2021

Fig. 5: Efforts of Plantation Agriculture on Education promotion-Moungo Division

Health Facilities and Service Delivery

Provision of health facilities and service delivery is a social indicator for human development. Health is wealth. The CDC conscious of the importance of labour as an indispensable factor of production, has made efforts in providing medical units in various plantation Estates in Fako Division. These health units operate on every Mondays, Wednesdays and Fridays. This is to avoid reduction in workers’ output. Population participation in project realization as was the case of construction of the Penda Mboko Integrated Health Centre-PMIHC (plate-1) from 2007 to 2012 is important. According to the Senior Nurse of PMIHC,

“When this health center started operating in 2012, the community provided some needed materials. As from 2012 to 2013, the government started providing anti-retroviral drugs, equipment, staff and mosquitoes’ bed-nets. Despite these government efforts, the health unit still faces problem of electricity due to lack of a standby generator for regular electricity supply in case of black out and emergency”¹

Health units in Camp IV and Kompina-CDC admit only patients registered workers and families, who benefit from estates’ health services. Only the Penda Mboko integrated health center created by the government is opened to the public. Consultation fees and buying of anti-retroviral drugs is obligatory for the patients. According to Senior Nurses of Matouke Estate-CampII and Kompina CDC health units, “The government through the Ministry of Public Health do provides anti-retroviral drugs, mosquitoes’ nets and dispatch of health workers from the PMIHC to administers vaccines to the various Estates’ health units”

Health units (plate 1) operating in plantations face several problems. They have inadequate infrastructures such as beds, insufficient equipment and anti-retroviral drugs for patients, subvention

from the government, trained health personnel (few staffs) and medical doctors to attain to patients in the Estates.

Plate 1: Health Infrastructures in Plantation Estates in Penda Mboko and Matouke



Photo 3: The PMIHC- 'A' This health unit receive and treats patients who are both Estate 'B' workers and non-Estate workers in Mounjo.

Photo 4: Matouke Estate Health Unit 'A' This health unit receive and treats patients who are Matouke rubber Estate 'B' workers

Photo 5: The Matouke Maternity 'A' This Maternity/health unit receive pregnant women who are Matouke rubber Estate 'B' workers.

Source: Field Survey ojuku and Mumah, 2020

Some health units that exist in plantation Estates, number of nurses with corresponding patients received on daily, weekly, and monthly and annually bases are seen on table 3. These health units have a doctor and nurses who attend to patients once in a week. Some of the nurses are provided by the CDC. Field work revealed that some are not competent enough to cater for the health needs of the increasing workers. There is a mismatch between patients (plantation workers and family members) recorded in health units and available nurses/doctors.

Table 3: Health Units, workers and Common Diseases Recorded in Plantation Estates

SOCAPALM in Dibombari	N°	SAFACAM	Common Diseases in Palm Plantation Estates				
		N°	Malaria, acute respiratory infections, Muscular-skeletal pains and Gastro-enteritis				
<i>Clinics&Health Centres</i>	7	1					
<i>Health Staff</i>	28	14					
<i>Consultations</i>	49087	2744					
<i>Hospitalisation</i>	543	1009					
CDC Mounjo						Diseases among Rubber and Banana Plantations' workers	
<i>HealthUnits</i>	N° of Doctors	N° of Nurses	N° of Patients Received				Malaria, typhoid fever, HIV/AIDS, body rashes, cholera, irritation, eye problems
			Daily	Weekly	Monthly	Annually	
<i>PendaMboko</i>	-	06	08	60	242	2,904	
<i>Camp II CDC Matouke</i>	01	06	50	230	700	8,400	
<i>Camp IV PendaMboko</i>	01	05	70	210	640	7,660	
<i>Kompina CDC</i>	01	04	35-45	225	675	2,700	
<i>Total</i>	03	21	173	725	2257	21,664	

Source: SOCFIN 2014 compiled by authors and updated after Field surveys, 2021

Table-3 shows the dominant health problems among plantation workers in Fako-Moungo Divisions. Malaria is peculiar in plantation estates because plantation farms combined with harsh climate are breeding grounds for mosquitoes. In addition, poor sanitary environment in camps, importable drinking water, misused and abused of toilets affect plantation host communities. Body rashes stems from aerial spray of plantations and poor handling of agro chemicals are common problems faced by workers and local populations living near plantations. Due to sudden change in weather conditions, aerial spray of agro chemicals in BPL, PHP and CDC banana plantations is done at times without prior notification to the surrounding agricultural labour. In effect, chemical drift often leads to body rashes, eye problems and irritation among plantation labourers (Abole, 2020).

Due to the poor living and working conditions experienced in these estates, poverty is acute among plantation labourers. This situation is attributed to low wages, quality of food and water consumed, poor sanitation and healthcare that adversely affect their health. In a study on the inter-linkages between poverty and diseases in CDC camps, Makoge *et al.*, (2017) pointed out that poverty related diseases are linked to poor hygiene stemming from workers' farmstead or camps. However, formal healthcare is available in plantation estates but poor corporate social responsibilities obliged plantation labourers to seek for informal healthcare for poverty related main diseases such as malaria, Diarrhoea, HIV/AIDS, cholera and typhoid fever. About 90% of plantation workers relied on self-treatment, unorthodox medication with no access to free services, especially for malaria treatment.

II.3 Housing for Plantation workers

Agro industries have contributed to provide housing for plantation workers and their family members. Housing of labour migrants has always been a problem ever since the creation of the enterprises. Ayuk *et al.* (2019) noted that housing and social amenities from 1947-1961 for labourers most of whom were migrants from the North West, West and South West regions inadequate. Several camps hosting plantation workers are made of hiltold wooded buildings referred to as "carraboards". They were constructed using local material comprising wood and Indian bamboos for erection, mud for walls, cementing and taches for roofing. Their provision was essential to improve on workers welfare, efficiency and productivity in plantation works.

Today the old camps are outdated, overcrowded, lack basic facilities and poorly ventilated. Over 10 workers share a toilet, often misused, abused and without privacy. In some camps closer to rubber factories, banana parking stations and oil palm mills, the quality of drinking water is not good. Communities are obliged to consume water from boreholes and streams contaminated by pollutants not treated. Frequent black out and electricity power cuts is common in several of the camps. This neglected has exposed the plantation workers to health hazards.

Only the newly constructed camps for the senior staff are well ventilated and improved when compared to the old ones (plate 2). These new houses at Camp 7 and 8 in Mangamba and Malende are furnished with free electricity and solar panels for energy.

Plate 2: Workers' Camps in Fako-Moungo Divisions



Photo 6: CDC-Penda Mboko workers' Camp Note the dilapidated structures 'mud thatched' 'A', in front of rubber plantation 'B'.



Photo 7: Newly Constructed Workers' camp 'A' at Penda Mboko

Source: Filed surveys ojuku and Mumah August /September 2020

Articles 85-88, part 12 of the ILO (1958) highlights on the need for sustainable housing to workers. This code equally governs plantation to improve on working conditions. Poor housing has been a factor of strike actions and labour instability in CDC plantations with negative outcomes on cash crops production in the estates (Koning, 1996).

II.4 Employment and Income generation

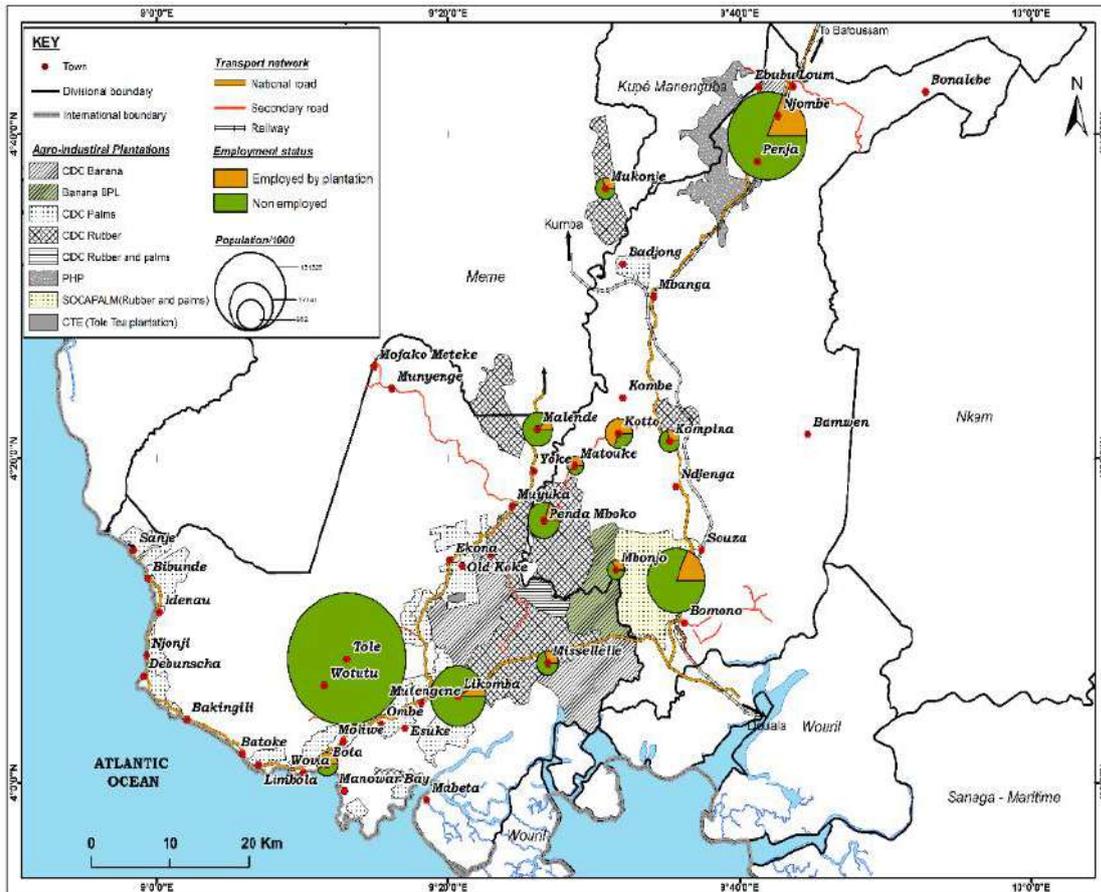
Unemployment is a major problem faced by the youths in Cameroon and measures to close up this gap are central in government development strategies. Plantation agriculture has created many employment and income opportunities for workers operating in the agro industries under study. One of the fundamental goal of establishment of plantation agriculture was the creation of jobs to curb unemployment in rural communities. The different agro-industries found in Fako and Moungo Divisions employed thousands of youths in Cameroon (Table-4).

Table 4: Situation of Labour in the Fako and Moungo Agro-Plantations

Agro-plantations	Labour Force	
	Permanent Labour	Temporary/Casual Labour
CDC Rubber	7, 379	826
CDC Oil Palm	3, 975	778
CDC Banana	5, 882	1, 398
CDC GM Office Staff	1, 295	-
PHP Banana	6000	-
BPL Banana	529	-
CTE-Tole Tea	300	-
SOCAPALM& SAFACAM	3200	-
	8511	-

Source: Compiled from Agro-industries Human Resources' Archives, authors 2020

As seen on Table 4, the Moungo and Fako plantations absorbs many workers in Cameroon. Kotto-Matouke Rubber Development Project (MRDP) employs 70% of workers, Matouke 60%, Mbonjo area 33.5%, Kompina 28.9%, the Penda Mboko and factory 19.72%, Njombe-Penja 18.9%, and 18.7% for Dibombari area. In Fako Division, employment distribution shows 57% for Bota and Bota Land, 52% for Meanja, 12% for Malenda, 30% for Missellele, 7.4% for Sonne/Likomba. 0.23% for Tole-CTE and 30% for Mukonje. The spatial distribution of workers in the Fako-Moungo agro industries is shown on Fig 6.



Source: Fieldwork, 2020

Figure 6: Labour Distribution in Fako and Mounjo Plantations

The SOCAPALM estate has a Staff of 3200 employees, 2338 out-growers who have about 3000 agricultural workers. In total, about 30,000 people work directly or indirectly in SOCAPALM in 32901ha of oil palm plantations and 2079ha of rubber plantations. The estate has a production capacity of 95644 tons of crude palm oil per year and a turnover of £72 million.

Agro industries in Fako and Mounjo area also empower the workers operating in their estates to have income to fight against poverty. This explains why the CDC is the second employer after the state in Cameroon. Prior to the advent of crisis, the CDC employed approximately 22, 000 workers (Fig. 7). For instance, the CDC-Del Monte banana plantation project that began in December 1987, employed 2736 workers, majority of whom were *categories 1-6* workers, with *categories-7 to 12* made up of supervisory and management staff. Also, the four banana plantations of the CDC in Fako and Mounjo Divisions employed about 10,000 direct and 50,000 indirect labourers and generated an annual income of about 43billion FCFA (Budi, 1999). The layoff of several of these workers and irregular payment of their wages for several years faced with the effects of the economic crisis, restructuring of the plantations and recent conflicts in the anglophone region rendered these workers unemployed and poor. Today the workers retrenched total about 8000 with calls being made by the CDC for the Cameroon government to put in place strategies to facilitate their reintegration.

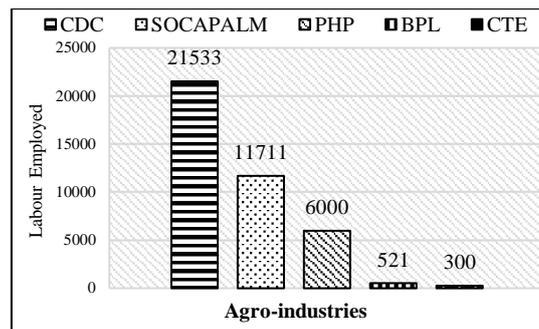


Figure 7: Trends in Employment by Agro-industries in Fako and Mounjo Divisions
 Source: Fieldwork, 2020

Provision of jobs, income generation, and rural electrification, pipe borne water supply, education and health services delivery are the benefits of agro-plantations establishment in Fako and Mounjo area. As figure 8 reveals, a significant proportion of population (70 to 90%) sampled revealed that agro-plantations provide many advantages to the people. This area employment (83%), source of income for welfare enhancement, insurance to their health (70%) and free electricity in farmstead (90%).

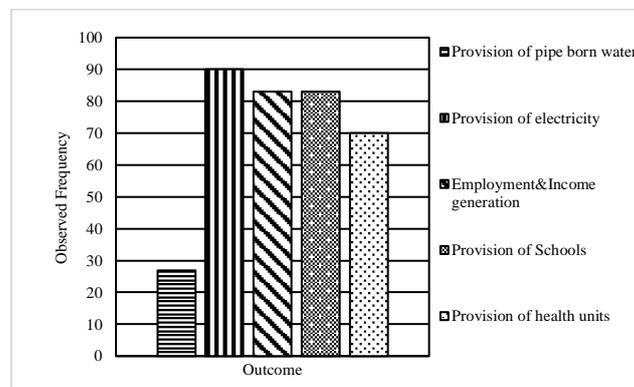


Fig. 8: Outcomes of Agro-plantations on Communities
 Source: Fieldwork, 2020

The lack of portable drinking water in many plantation estates poses a problem to some 27% of the persons sampled contrary to 73% of the people. The estates are a factor of national unity and social integration judging from the ethnic diversity of the workers operating in the enterprises. The plantations offer free land and managerial skills to workers willing to open small chop farms and basic amenities to the poor households. Many workers in the estates return home with food items such as ripe bananas, palm oil, robber residues and fuel wood during the harvesting seasons. At times unsold produce are auctioned by the plantation officials in the local markets in villages around the plantations.

II.5 Negative Outcomes

The devastating impact of the Anglophone crisis on plantations, labour providers and communities has made many people to have a mixed feeling on its benefits. These people are of the opinion that several workers have been laid off (79%), workers camps abandoned, school and health services for their families neglected. The farm to market roads in the area used by the local communities and the plantations for movement of their goods and persons have also been neglected. Other hold that land conflicts are many in the estates due to land grab by the enterprise in complicity with the traditional authorities without much benefit to the local population (Bamenjo, 2017; Schneider, 2020).

The Anglophone crisis has disrupted plantation development activities by inducing low wages and inconsistency in their payment. Also, it has halted the education of children following the closure of schools, burning down of its infrastructures, desertion by teachers and occupation by separatist fighters in the Fako plantation areas. Attacks on plantation installations and personnel by separatist has led to instability, plantation conflicts and plummeting of plantation produce. This is a challenge the estates have had to grapple with faced with the persistence of the crisis. As a further consequence of these constraints, salaries have been slashed down for all category of workers in the estates. Today, states and local workers receive a wage of about 25000-30000 FCFA which is below the minimum wage of 30500/month. Categories 1 to 6 workers (general labour) earn 35000 to 150, 000 FCFA, categories 7 to 12 workers (Field Assistants and managers) 150,000 to 250,000FCFA per month. It is for this reason that a field assistant in the Matouke rubber plantation lamented that:

“Before the Anglophone crisis stated, my monthly salary was 250, 000FCFA but with this crisis everything has changed. With this fall, inconsistency in payment of our salaries in common, labour turn out reduced and volume of crops produce much reduced. Many workers with low wages have ended in debt for the upkeep of themselves and families”.

Many workers in the plantations are of the perception that working in the estates today is modern day slavery because the low benefits from the agro-industries are not sufficient to meet up with their daily needs and do not contributes to sustainable community development.

Deforestation, pollution and soil degradation has also been identified as a negative outcome of the establishment of agro industries in Fako and Moungo Divisions. If communities’ land is use for agricultural diversification, they can sustain their families and improve their livelihoods (Barthlo, 2011).

Plate 3: Scenes of Deforestation For Agro-Plantations in Fako&Moungo Divisions

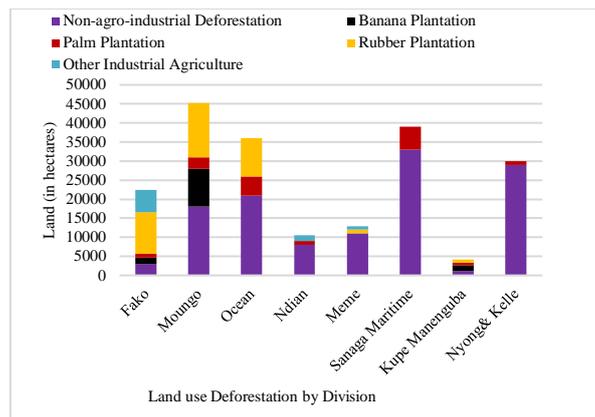


Photo 8: A Deforested Land for Rubber Nursery in Penda Mboko

Photo 9: Deforested Land for Banana Project in Tiko

Source: Photos by MUMAH, W.T., August 2020

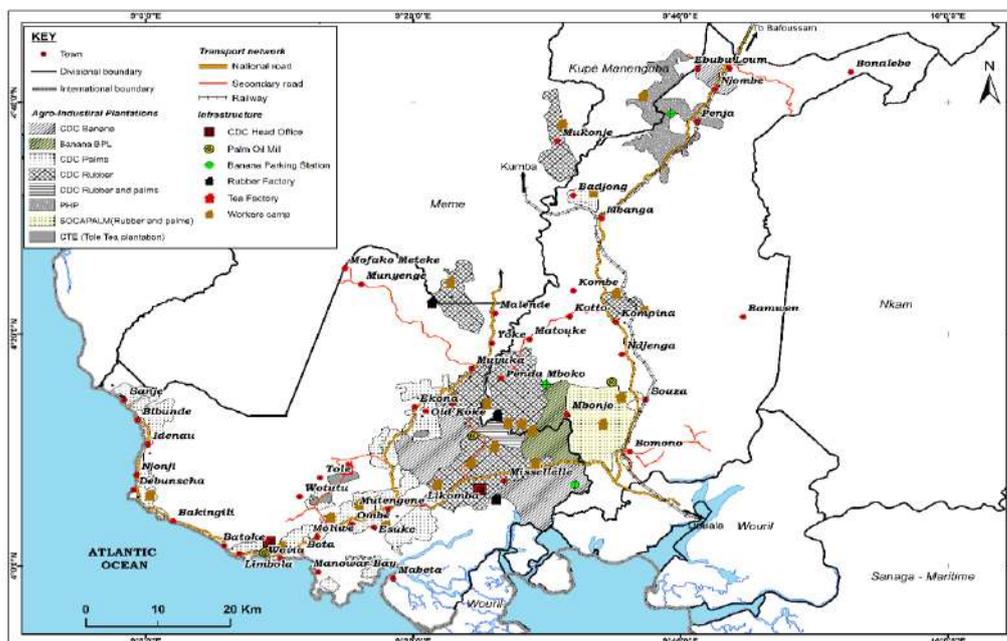
Plate-3 is just one of the many cases of photos showing deforested land for plantation agriculture. In photo-8, note rubber storms on germination bed ‘A’ and ageing rubber ‘B’, while photo 9 shows deforestation in the Tiko plain. Note, forestland replaced by farmland ‘A’ and few banana plants ‘B’.



Source: UNIQUE/IIASA/Rainbow, 2017; Field data, 2020

Figure 9: Land use Deforestation along the Cameroon Coast

As seen on figure 9, approximately 10,000 hectares of forestland have been converted into banana plantations, 4000 hectares into palms and 14246 hectares for rubber plantations in Moungo Division. In Fako Division, the picture of deforestation for industrial plantation is different. About 5000 hectares of land now deforested has been attributed to industrial agriculture. Out of this land, 2000 hectares of forestland has been converted into palm plantations. Also, land deforestation for banana project represents about 3000 hectares and 10. 833 hectares for rubber plantations. In the Moungo area the situation is not different. A considerable proportion (about 18000 hectares) of forestland has been converted into non-agro-industrial activities in Moungo Division as compared to less than 5000 hectares for Fako Division. The spatial distribution of these plantations is seen on figure 10. Farmers operating small scale farming and hunters that live on wildlife are the victims as they have lost their sources of livelihood (Diarra, 2014).



Source: Adapted from Cameroon Forest Atlas, 2011/NIC and modified after Fieldwork, 2020

Figure 10: Layout of Agriculture Plantations in Fako-Moungo Divisions

Pollution resulting the discharge of effluents into streams and application of toxic chemicals substances for spraying of crops pose as a health hazard in plantation communities and environment of Fako and Moungo Divisions (plate 4).

Plate 4: Pollution in Plantation Estates



Photo 10: Effluent 'A' discharged at the CDC Penda Mboko 'B' Rubber Nursery

Photo 11: Discharged Latex 'B' mixed with Amonia 'A' at the Penda Mboko Rubber Estate 'C'

Photo 12: Exposed Rubber Coagulum (cup lumps) 'A' at the Kompina workers' camp II 'B' Estate

In plate 4 photo 10, one observes a heap of generated waste composed of polythene bags 'A' and sprouting rubber seedlings 'B'. These polythene bags used for nursing rubber plants but are later abandon and exposed on the environment. In photo-11, note discharged latex mixed with ammonia 'A' from the suspension-metallic drum 'B'. When latex is tap from rubber trees 'C', it is preserved in metallic drum and ammonia + boric acid or hydroxylamine neutral sulphate added to prevent it from solidification. Photo-12 denotes rubber coagulum 'A' in front of workers'camp 'B' and rubber plantation 'C'. Before tractors or vehicles convey latex and cup lumps to the factory for processing, it generates an unpleasant odour (Mumah, 2018).

Plate 5: Pollution and Land Degradation in Nkapa, Mbonjo and Penda Mboko



Photo 13: Emission of toxic gases (A) and Oil (B) from a palm oil mill at SOCAPALM Nkapa

Photo 14: Fertilizers (A) in bags for Banana (B) cultivation in Mbonjo

Photo 15: Weeds (A) burndown using herbicides at the Penda Mboko Rubber (B) Estate

Source: Photos by authors 2021

As seen on plate 4 there is an emission of gases via a chimney at a palm oil mill in SOCAPALM. Also, oil from this factory is spilled on neighbouring farmlands. Communities closed to oil palm and rubber factories have suffer from pollution manifested by dejection of an odour that brings discomfort. In several places pauletene bags of chemical fertilizers for banana cultivation are dumped without control in the area not leaving out the use of herbicides for weed control in rubber plantation. These substances (glyphosate, paraquate, Aldicarbe, Carbofuran and inorganic fertilizers) used in plantation estates for crop protection negatively affects the population and fauna when discharge indiscriminately on land and streams. Many farmers in this region have assimilated these techniques and are applying them in the cultivation of food crops such as sweet potatoes, melons, and yams. The effort of poor framers to boost subsistence crops production with agro-chemicals raises doubts on the quality of food consumed.

III. DISCUSSION

Evidences from this paper show that plantation agriculture in Fako and Moungo Divisions ever since its establishment has been of mixed blessings to the local populations that host the estates and Cameroon at large. The dynamics of their activities have led to positive outcomes such as the provision of schools, health services, jobs opportunities and income to the population that interact with the estate. These agro-industries (CDC, CTE, SOCAPALM, PHP and BPL) have been drivers of development through the provision of employment, social and recreational services and contributions to state revenue in the form of royalties that boost its Gross Domestic Product (Ngilla, 2013; Kimengsi, et al., 2016; Mumah, 2018). This confirms the assertion that the agricultural sector is the backbone of the Cameroonian economy. Prior to the advent of crisis in the study sites, this sector is reported to have employed more than twenty thousand Cameroonians and contributed about 4.6% to state GDP in 2016 (GESP, 2009). Agro-parastatals contributed 1.17% share of Cameroon GDP in 2017 (World Bank, 2019). As a source of income and foods to plantation labourers and host communities, the reinvestment of remittances has helped to transformed livelihoods in some communities of origin of workers (Takwa, 2010; Ajonina et al., 2014; Dongfack, 2015). In Fako and Moungo like other areas in Cameroon (Ndian, Meme, Sanaga Maritime, Ocean, Donga/Mantung, Koteng and Banjock etc.), plantation agriculture has been accompanied by infrastructural development. These include the creation of schools, health units, farm to market roads, workers camps and the provision of electricity, pipe borne water and leisure activities that reinforce social cohesion and national integration amongst different ethnic groups. These benefits should not be minimized for corporations are first and foremost entities driven by private interest, created for profit as opposed to the state that exist for the common good and welfare of the population.

The negative outcomes of these agro-enterprises have also been visible. The human and environmental problems identified were land use conflicts, neglect of community development projects, deforestation, extinction of biodiversity, pollution and soil degradation.

The use of pesticides for production enhancement is normal but when adequate measures are not put in place to protect the population and environment this is not good. Some workers have contracted eye problems resulting from the abusive use of this farm inputs with little or no medical support from the enterprises. Machines for produce treatment for export have also chop-off the hands of some labourers during rubber processing. The problem of low wages and inconsistency in payment have been acute in plantation estates. Abysmal working and living conditions by populations that leased out their lands for plantation agriculture face problems of land scarcity and food insecurity. This context often leads to plantation conflicts, theft of plantation crops for survival and poverty alleviate, encroachment and periodic encroachment into plantation lands for settlement and farming by host-communities. Thus, insecurity and crisis management pose a serious challenge to the estate managers. Policy guide lines have to be put in place regulating the relations between these agro-industries and their host communities to cope human casualties, destruction of properties, infrastructures and valuable resources that is common in these areas as typical of plantations in other parts of Cameroon (Ojuku, 2016). Recent studies carried out in this region have shown that farm conflicts have often led to loss of human capital and equipment, drop in financial benefits and cash crop produce such as rubber, oil palm and banana (Chung, 2020). The corporations have obligatory human rights responsibilities to respect even though it might not benefit them financially.

The positive and negative outcomes of plantation agriculture in Fako and Moungo bring into question the role of these corporations in rural development and population uplift. While many people consider them as a panacea for development others perceive the corporations as a problem judging from their negative outcomes. Kimengsi *et al.* (2016) have refuted the role of the CDC as a “drivers of development”. Also, Beckford (1972) and Blomstrom and Hettne (1984;) have laid controversial claims on plantations as drivers of underdevelopment based on exploitation, domination, dependency of communities and neglect of indigenous communities in the development process. The challenges faced by these agro plantations such as the armed conflicts in the Northwest and Southwest Regions of Cameroon, land conflicts and low government subvention have resulted to neglect of development in communities whose lands were leased out for plantation works. According to the Cameroon government, prior to the anglophone crisis 11 billion FCFA was disbursed annually as subvention to the CDC. Today, 55 billion FCFA have been lost with 23 billion comprising workers salary and 17 billion FCFA their retirement benefits. Also, the CDC has placed over 8000 workers jobless as a result of these crises. This situation is not appealing as families are jobless and exposed to abject poverty.

CONCLUSION

This paper has shown through analysis of relevant field data that plantation agriculture has contributed to the development of Fako and Moungo Divisions. This is because of the social and economic benefits the corporations have created such as employment, income generation to the population and the state; housing and health service delivery, social integration and cohesion in plantation communities. However, several negative outcomes resulting from the activities of the corporations have been observed such as land grab and conflicts, environmental pollution, deforestation, neglect of rural infrastructure development and retrenchment of workers without payment of their salaries. Privatization, the restructuring of Agro-industries, insecurity and crisis in the anglophone regions of Cameroon have adversely affected the plantations and their development of host communities.

There is need for policy guidelines to promote the activities of these agro-plantations for the benefit of the population and communities that depend on them for survival. Innovative strategies for youths’ engagement in agro-plantations for development could be promising. These strategies will stop rural exodus, promote youth’s engagement in agriculture and other economic activities and redress the problem of labour instability in plantation and problems encountered by host-communities. Investment on technology and production methods and application of the law are necessary to reduce pollution and strict control of the activities of these multinational companies. A win-win partnership between agro-industries and the communities where they operate must be promoted to reduce the tension, conflicts and insecurity that often affect both parties. Technology transfer and capacity building of small holders of plantations should be done. This will help fight unemployment, reduce rural poverty and insecurity that affect the plantations. It will also improve corporate governance and the corporate social responsibilities of agro-enterprises.

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