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Forest Illegalities and Corruption in Cameroons Forest Sector.

A Theoretical and Literature Review of Corruption with Regards to Forest Illegalities

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LIST OF ACRONYMS AND ABBREVIATION

CEMAC	Monetary Community of Central Africa
CPDM	Cameroon Peoples Democratic Movement
CPI	Corruption Perception Index
DFID	Department for International Development.
EU	European Union
EUTR	European Union Timber Regulations
FLEGT	Forest Law Enforcement Governance and Trade
GDP	Gross Domestic Product
GFPM	Global Forest Product Model
LAS	Legal Assurance System
MINFOF	Ministry of Forestry and Wildlife
NPFD	Non-Permanent Forest Domain
PFD	Permanent Forest Domain
REM	Resource Extractive Monitoring
SIGIF	Information System for Management of Forestry Parameters
UN	United Nations
USD	United State Dollars
SIGIF	Information System for Management of Forestry Parameters
SME	Small and Medium-size Enterprises

ABSTRACT

In the past decades illegal logging and related forest, activities have increasingly been a global concern, especially in forest products producer countries. This phenomenon has high rates in the Cameroon forest sector caused by poverty, poor Law enforcement, lack of transparency, conflicts, state ownership of majority of forested land, and in addition to these, its high rates of corruption. International NGOs such as the world bank, Department for International Development (DFID), and other unions such as EU have stepped in by providing financial aid and designing programs such as FLEGT and REDD+ to curtail these malpractices in Cameroon forest sector but still, it has remained a cause for concern. The objective of this paper is to find out why corruption has been an increasing phenomenon in the Cameroons forestry sector, and what has been the driving force behind this increase in corruption.

In this paper, I made use of existing literature and also a corruption theoretical model by (Andvig & Moene, 1990) to explain this aspect of Corruption focussing on the incentive mechanisms in the model. It is established that poor law enforcement, lack of transparency, lack of information by the majority of forest actors, and poor governments have provided an avenue for high incentives to the corrupt actors especially the forestry officials and other people with Affluence. It is realized that corruption in this sector can be combated if there is strong law enforcement (severe Sanctions), and improvement in governance will go a long way to reduce the incentives of corrupt actors and consequently reduces the incidence of corruption.

Key words: Forestry, Illegal forest activities, Corruption.

Contents

- ACKNOWLEDGMENT iii
- LIST OF ACRONYMS AND ABBREVIATION iv
- ABSTRACT v
- 1 Introduction 1
- 2 General background..... 3
 - 2.1 The Arrival of the European Colony..... 4
 - 2.2 Economic Background. 5
 - 2.3 Political Background of Cameroon..... 9
- 3 Other Natural Resources in Cameroon 11
 - 3.1 Renewable Natural Resources 12
 - 3.1.1 Land..... 12
 - 3.1.2 Hydropower 12
 - 3.1.3 Biomass 13
 - 3.2 Non-Renewable Natural Resources..... 14
 - 3.2.1 Minerals. 14
 - 3.2.2 Petroleum..... 15
- 4 Cameroon Forest Resources..... 16
 - 4.1 Geography..... 16
 - 4.2 Biodiversity..... 17
 - 4.3 Ownership..... 19
- 5 Literature Review on Illegal Forest Activities. 20
 - 5.1 Irregularities During Auctioning and Sales of Concessions 25
- 6 Method 29
- 7 Corruption 29

vi

7.1	Reviews on Corruption and Some Theories	30
7.2	Presentation of Corruption Theoretical Model by (Andvig & Moene, 1990)	39
7.2.1	Incentives for Corrupt Acts.....	39
7.2.2	Assumptions and Simplifications.....	39
7.2.3	Relating the Model to My Case Study.	46
8	Relationship Between Corruption and Illegalities in the Forest Sector.....	50
9	Discussions: Enforcements and Their Weaknesses.....	53
9.1	Enforcements in the Forestry Sector.	54
9.2	Weaknesses in the Enforcements.....	57
10	Conclusion and Recommendation.....	59
11	REFERENCES	61

1 Introduction

In trying to find stability between economic development and biodiversity preservation, it has become more and more challenging with the existence of climate change, an increase in the human population and high demand for natural resources from the tropical forest on which about 1.2 billion of the world's poor population depend on. Also, not only does the population depend on the forest's natural resources which contains some of the richest species of wood in the world, it also serves as a home for them (Meijaard et al., 2013). The resources from the forests can be a driving force to the economic developments in terms of Gross Domestic Product (GDP), reducing poverty, tackling unemployment, and most importantly increases government revenues. With such advantages from the forest, it's important to stop malpractices that have been taking place in the forest sector such as Illegal logging and other related illegal forest activities.

Illegal logging and other related forest illegalities are nothing new when it comes to Cameroon, considering the fact that the country is known to have a notoriety of illegal logging which has even raised concerns internationally regarding these malpractices that are considered to be of very high rates in Cameroon (Cerutti & Tacconi, 2006; Lawson & Macfaul, 2010). These Illegalities in the forest sector of Cameroon according to (Alemagi & Kozak, 2010) is as a result of poverty, poor license schemes, a large proportion of forest land owned by the state, and in the list too is corruption and other authors such as (Carodenuto & Ramcilovic-Suominen, 2014; Peh & Drori, 2010) also indicated that corruption and the operation of the domestic informal sector in Cameroon have also increased the high rates of forest illegalities such like illegal logging.

It shows corruption is one of the main driving forces in Cameroon forest illegalities due to poor governance, transparency, and weak judicial system. Corruption in the Cameroon forest sector has greatly degenerate. Conferring from the 2017 press conference presentation, the Corruption Perception Index (CPI) was 7.25/10, taking into consideration only the assessment from the forestry and wildlife sector. The assessment shows that about 82% of forest actors in Cameroon are involved in corrupt practices and the state authorities are the principal orchestrators of corruption in the forest sector (CIDT, 2018). In recent years, there has been a lot of concern both on the social, economic, and environmental impacts of forest malpractices leading to an increase in poverty by making forest resources less available for the poor. Also, economically,

there has been a great loss in Cameroon's government revenue resulting to a reduction in timber prices and tax evasion leading to poor economic development. This has caused the government to sort for assistance from international Non-Governmental Organisations (NGOs) as regards conservative and sustainable forest management. Despite these efforts made, many Cameroonian forest operators still involve themselves in these illegalities in one way or the other, either because the country's legal systems do not favor some of the operators in getting licenses or due to the fact that the legal procedure for obtaining licenses or logging permits are made cumbersome. All these can be as a result of corruption that is said to have infiltrated into the Cameroons forest sector. Nevertheless, it is unclear as to what extend corruption has highly affected the Cameroon forest sector.

This paper seeks to find out why corruption is high in the Cameroon forest sector, and what is the driving force behind it? This study is based mostly on a theoretical approach and existing literature in order to give a clear understanding of this phenomenon. The preceding section of this paper gives a general background of Cameroon with its historical evolution of forest management. This is later on followed by a detailed explanation of the various types of natural resources existing in Cameroon and also, some of the various Cameroon forest resources. Furthermore, I will give a literature review on forest illegalities, and another one that will focus on literature and theoretical review of corruption, presentation of a corruption theoretical model in relation to my studies.

2 General background

Cameroon is a country located in central Africa surrounded by the Gulf of Guinea (Atlantic Ocean) in the west. Cameroon is bordered by Nigeria in the northwest, the Republic of the Congo (Brazzaville), Gabon and Equatorial Guinea in the south, and the Central African Republic, and Chad to the East and has a narrow lakeside at the lake chad in the North. Cameroon has an area of 475,650km², almost having the same size as Spain. Its coastal and southern areas are known for its thick vegetation, an extensive



river system, and a hot, sweltering climate with heavy rainfall. The biggest city is Douala, which is the Country's economic capital with its commercial and industrial activities, having the main port. Yaounde is the political Capital of Cameroon and the second-largest city.

Cameroon is having other urban centers like Edea which are known for its heavy industry and hydro-power plant. Limbe on the other hand is known as the which headquarters of the oil industry and the terminal of the Chad-Cameroon pipeline in Kribi.

According to the last population census that was carried out in 2016, the population of Cameroon is 24 million people and has two official languages, French and English with French being the commonly used language.

In order to understand Cameroon forest management and its inherent illegalities, it is useful to understand the historic underpinnings of the current situation. The first people to live and occupy the Cameroon land was likely the Bakas- or commonly known recently as the pigmies. They are still the inhabitants of the forests in the south and east regions of Cameroon. Those originating from the Cameroonians highlands Known as the Bantu speakers were among the first groups to move out before other invaders. In the late 1770s and early 1880s, a group of pastoral

Islamic people of the Western Sahel known as the Fulani occupied most what is presently called northern Cameroon, bringing under the dominion or displacing its largely non-Muslim inhabitants (Spanish Exchange 2020,).

2.1 The Arrival of the European Colony.

Despite the Portuguese arrival on Cameroon's coast in the 1500s, malaria stopped significant European settlement, subjugation, and assumption of control of the interior until the late 1870s, when quinine was available and supplied in large quantities for the treatment of malaria. The early coming of the Europeans was primarily motivated by the coastal trade and the buying of slaves. The Muslim slave trade network in the northern part of Cameroon was very essential for this activity. In the mid-19th century, the slave trade was greatly reduced. In the late 19th century there was the presence of Christian missions that played and continue to play a role in Cameroonian life.

At the start of 1884, Cameroon became a German colony at that time known as Kamerun, with Buea being the first capital and later transferred to Yaounde. The German government made important investments in terms of infrastructure in the country, for example, the single-span bridge on the south of River Sanaga. The Germans also build hospitals across the territory including two principal hospitals in Douala, one of the hospitals was mainly for the treatment of tropical diseases. Notwithstanding the advantages of these projects, the natives were unwilling to work on these projects, because of these, the Germans put in place detested and harsh system of forced labor. After Germany was defeated in the first world war, Cameroon was then divided between France and Britain by the league of nations on the 28th of June 1919. France had about 80% of the territory which was called Cameroun and it was ruled from Yaounde while the rest of the 20% was given to Britain and was Ruled from Lagos was also renamed as Cameroon. France assimilated Cameroun's economy with its own and build infrastructure with skilled labor and capital investment and therefore reshaping the forced labor system. On the other hand, British Cameroon locals complained of being ignored. Workers who are migrants from Nigeria moved in their large numbers into southern Cameroon brought to end the forced labor.

The region controlled by France received independence on 1 January 1960 and was called the Republic of Cameroun and Ahmadou Ahidjo was the first President. On 1st October 1961,

British southern Cameroon reunited with French Cameroun to form the Federal Republic of Cameroon. And on the 1st of September 1966, Ahidjo's party became the only legal political party. The Federal system was gotten rid of, forming the United Republic of Cameroon with its capital in Yaounde. Planned liberalism from the fiscal strategy was put in place with priority to the development of petroleum and cash crops. The government used oil money to pay farmers and create cash reserves in the countryside which aided key development and investment. Despite all these, most of these investments did not work due to the appointment of persons who were unqualified to oversee these ventures. In 1984 Paul Biya took over from Ahidjo as president and created a more democratic regime by putting in place a multiparty system and has been in power since then, with his political party known as Cameroon Peoples Democratic Movement (CPDM) party holding the greatest majority in the government(Spanish Exchange 2020,).

The country faced an economic crisis in the mid-1980s and late 1990s caused by factors such as drought, global fiscal conditions, years of corruption, mismanagement of resources, and fall in petroleum prices. For the government to reduce the effects of these crises, she had to privatize state-owned industries, reduced Government expenditure, and seek foreign aid.

2.2 Economic Background.

For us to talk on the economic background of Cameroon, we need to discuss some of the factors that are affecting the Cameroon Economy: like what they spent their money on, their potential donors, and what they export and also countries that mostly import goods from Cameroon.

Capital Formation. The World Bank classified Cameroon as a lower-middle-income country in 1961 when it became a unified and independent country. Cameroon is known as an agricultural country and thus its capital comes mostly from agricultural activities not leaving out benefits, she receives from countries like France, the United State of America, and other European countries with France being the highest benefactor to Cameroon (Mbaku 1993). Being an agricultural country, Cameroon's main income comes mostly from the exportation of cash crops such as coffee, cocoa, and rubber. In the years 1965 and 1980, The Gross Domestic Product (GDP) experience an average annual growth rate of 5.1% and Between 1980 and 1990 a rate of 2.3%. The Gross National Product (GNP) in 1990 was 960 US dollars per capita. In recent years industries like mining, manufacturing, construction, and power have positively

affected the GDP. The Petroleum sector significantly affects the industrial sector positively which accounts for 27% of the GDP with the agricultural sector accounting for most of it, in which about 60% of Cameroon's labor force is engaged in agricultural activities. Also, the creation of the Douala stock exchange market in 2001 by the Cameroon government was to boost up market capitalization by encouraging financial companies to develop a financial stock market culture thereby issuing new financial resources to firms which have had a positive outcome on the stock market and economic growth resulting to an increased in the GDP (Mbaku, 1993).

From the 2019 index of economic Freedom, Cameroon is ranked 145th with an economic freedom score of 52.4 having an overall increase in a score by 0.5 points with investment freedom and labor freedom with the highest opposing by a sharp decline in fiscal health. Cameroon is ranked 29th country in the Sub Saharan African region of a total of 47 countries in this region (The Heritage Foundation 2019), which she has an overall score below regional and world averages. Cameroon is having a difficult business environment and there exists a large informal economy that blocks the diversification of the formal economy

Cameroon is found in the CEMAC zone and has the largest financial system in this region, also access to financial services are limited especially to Small and Medium Size Enterprises (SMEs) in this regard they don't function properly. In Cameroon, it is a custom for banks to prefer to deal with large and established companies rather than dealing with SMEs Determining Factors are also seen in interest rates for SMEs limited at 15% being heavily taxed. As of 2006 total outstanding loans from banks to SMEs hardly reach 15 percent (Commons, 2020)

Also, not up to 5% of Cameroonians have access to bank accounts, instead, most people are versed but with microfinance and it has made this sector increasingly important, its development is hindered by the loose regulatory and supervisory framework for a microfinance institution. Foreign commercial banks dominate the banking sector of Cameroon amongst the 11 largest commercial banks in Cameroon, six of them are owned by foreigners and 50% of the total financial systems assets are held by three largest of these banks. While foreign banks are having the ability to continue operations into a certain future, small domestic banks are in a much weaker position since they cannot compete with foreign banks. Capitalization of foreign banks in the country is higher with profits of 20% while that of domestic banks is 2% which is

even below the average of banks in the CEMAC region. To an extent, this is explained by the towering levels of non-performing loans, which reached 12 percent in 2007 that led to a large number of excess reserves held by most banks as large levels of unutilized liquidity and bank deposits (Commons 2020, January 19). In 2018, due to the instabilities in the northwest and southwest regions, as a result of the anglophone crisis, the international monetary fund requested the Cameroons financial system to cover the losses from the affected regions in areas of failure to deliver on port facilities, loss of oil and revenue and the downturn in oil production by increasing its tax base.

Also talking about Cameroon Economy, it will be important to talk on some important cereals and cash crops that affect the economy in one way or the other. One of those is rice. Rice is one of the major cereals that Cameroon has been producing for local consumption by subsistence farmers. At the beginning of the 1960s the output from rice production stood at about 3500 tons and in 1970 after the enactment of the agrarian and rural development schemes, it gained its momentum and increased in a steady rate and around 1980s rice production in Cameroon was at its peak with a production of 107,399 tons and in present days production has significantly increased. Rice has been recognized as an important crop for producers both in the pre- and post-independence periods, given that about 75% of production is for commercial purposes, it contributes to generating a significant “farmhouse income”. In this regard, rice has been considered a trade commodity and politically as a commodity in the context of food security, due to this its economically important good for households which account for a significant part of food expenditure. This has made rice farmers allocate large shares of land to meet up with the fast and growing Cameroonian population. Though rice is seen as one of the crops that contributes a proportion of the food requirement of the Cameroons population, Its production capacity is very small compared to the national annual consumption which stands at 400000 tons (Molua 2010), because of this shortage, Cameroon needed to start importing milled rice to satisfy the growing population and bridging the gap. It is also noted that Cameroon imports most of its finished industrial goods from China, the United States, France, and other European countries due to limited modern technology and know-how.

Apart from looking at what Cameroon mostly imports it's also important to talk about the things she exports especially the goods that their exportation helps in boosting the GDP of Cameroon and how much they recover in US Dollars yearly. It is important to note that Cameroon mostly

exports goods like mineral oil including fuel, wood, cocoa, gems and precious metals, Fruits, aluminum, tea and spices, and a small amount of electrical machinery. The commodities listed above are the top 10 exports in Cameroon and they account for 97,5% of the annual value of its global shipment (Daniel Workman 2019, September 11).

The table below shows the various commodities, their values in dollars, and the percentage in overall export in the year 2018.

Order	Commodities	Amount in Dollars	Percentage in Total Export
1	Mineral fuels including oils	2 billion	45,1%
2	Wood	772,96 million	17%
3	Cocoa	662,4 million	14,6%
4	Gems, Precious metals	416,5 million	9,2%
5	Fruits, nuts	255,1 million	5,6%
6	Aluminium	120,4 million	2,7%
7	Rubber and rubber articles	51,9 million	1,1%
8	Cotton	46,6 million	1%
9	Coffee, tea, spices	36 million	0,8%
10	Electricity, machinery equipment.	15,9 million	0,3%

Source: Adapted from Cameroons top 10 exports in 2018 by Daniel Workman.

Amongst the top ten Exports category, gem and precious metals grew the fastest over the years up to 134,946% since 2017 caused by an increase in the international sales of gold and fruits took the second spot which gained 301,1% led by bananas. The shipment of electrical machinery equipment is in the third spot which has fast gained value up by 145,3% and in the opposite direction cotton has experienced a decline in exportation the most and depreciates by -36,1% yearly.

According to the latest Country specific data, it indicates that of all the products exported from Cameroon, 80,9% are bought by importers from Italy buying 13,9% of the global total, China (12,1 %), France (10,5), Netherlands (9,6), Spain (9), India (6,9), Belgium (5,4), Portugal (3,5), Vietnam (3,1) and Bangladesh, Malaysia and united state with 2,5%, 2,4 % and 2,2% respectively. (Daniel Workman 2019, September 11).

2.3 Political Background of Cameroon.

After French Cameroon gained her independence from France in 1961 to become "la Republic du Cameroun", English Cameroon later gain her independence from the British and they both came together to form the Federal Republic of Cameroon. This unified state on the 20th of May 1972 was then renamed the United Republic of Cameroon under the leadership of President Ahmadu Ahidjo and then in 1984 under the leadership of President Paul Biya, the word "United" was removed and then it became the Republic of Cameroon and also changing the two stars in the middle of their flag which signified two Countries to one star meaning the two countries have become one. Due to the forming of the urinary state by both the French and British in 1972, this gave rise to a plebiscite since the federal republic of Cameroon then became the Republic of Cameroon, as a result of this there was a formation of a strong central government which is highly controlled by the President and this gives him the authoritative rule over the members of the Government Executive. In 1990 there was the legalization of many political parties, and this gave birth to about 239 political parties, this was a bid to bring democracy in Cameroon though it is said to be run as an autocracy (Wiredspace 2011, December 11).

Cameroon has witnessed peace throughout its independence except for the 2008 crisis that citizens went on strike because of a high standard of living which made the government respond violently which led to a loss of lives and brought tension in the country. Also in late 2015, there

have been attacks in the far northern part of the Country by the Boko Haram sect while from November 2016, the anglophone crises began which has led to tension in the northwest and southwest region of Cameroon till present which started because inhabitants of these regions hit the streets to strike because they said they have been marginalized by French Cameroon since they are the majority and they hold the most important posts in the Government, because of the strike the government reacted again violently by sending soldiers to shoot and kill protesters which have now led to armed conflict between the Cameroon soldiers and those who want separation from French Cameroon. This has so far led to about 3000 deaths and hundreds of thousands displaced both internally and internationally.

According to African Development Bank 2010 to 2014 of Cameroon Country profile, the political landscape of Cameroon is almost the same, with the ruling party CPDM occupying about 80 percent of the seats in the house of parliament. The main vision of the ruling party is to see that decentralization is effectively practiced in Cameroon.

After the authorization of the formation of multiparty, the first legislative and presidential elections took place in 1992 and four years later (1996) there was also municipal elections and in 1997 another legislative and presidential elections took place and oppositions wanted an independent election commission which was rejected by the ruling government because of this the opposition boycotted the October 1997 elections which made it easier for the ruling party to win. A leader from one of the leading opposition parties Bello Bouba Maigari later joined the ruling government. There are many independent newspapers after the censorship was abolished in 1966, but the government still bans and suspends newspapers and sometimes arrests journalists. Although there was a law that was adopted in 1990 that authorizes the operation of private radios and television stations, the government still did not issue licenses until 1998 (Attribution, 2020, July 18).

The government of Cameroon has some human rights imperfections. There are many reports of abuses like arbitrary arrests, brutal molestation of detainees, and carrying out illegal searches. It is also noted that Cameroon is the only country that has two conflicting constitutions, that of 1972 which stipulates that in the case of death, resignation or absence of the president, the prime minister is the one to take over leadership of the country while that of 1996 constitutional reforms says the senate president is the one to take over the sit as president, but by then there

was no senate-house until 2013 that the house of the senate was formed made up of 100 members with one-third of the members appointed by the president leaving the remainder to be voted by the people. And the 1996 constitutional reforms changed the presidential mandate from 5 years to 7 years and in 2008 a constitutional amendment was made purposely to remove the presidential term limits. The president also has the power to appoint and dismiss cabinet members, like ministers, governors, top military personnel, top judicial personnel, senior divisional officers, and divisional officers and because of this Cameroon is said to have a strong central government that most powers belong to the president.

3 Other Natural Resources in Cameroon

Natural resources are believed to be very important because they add value to the economy in which they are found. They also provide necessary means to humans with various supplies to help them survive and meet up with their daily lives. These resources are mostly generated from the earth and thus they are known as natural resources. These natural resources can be renewable and non-renewable. According to the Renewable Resource Coalition, they defined renewable resources as “materials and substances that occur naturally and can be used for economic gains. They include forests and fertile land. Some natural resources like soil and water are essential for the existence of life.” And they can be regenerated or replaced within decades. While non-renewable natural resources are those that cannot be replenished nor replaced within decades or they disappear for good in the long run (Steffani Cameron 2019, May 28). Cameroon is known as “Africa in miniature” because of its diverse’ landscapes representing major climatic zones in the continent. This is one of the reasons that Cameroon is favored with many natural resources that in the last three decades they have been making good use of them to economically build their country. According to (Data Driven, 2016), natural resources rent, in general, contribute about 6.3% of the total GDP of the Cameroon economy (Knoema 2018, December 19). Cameroon is blessed with natural resources like land, oil and gas, minerals, arable lands, and natural scenery hydroelectric power which offers opportunities for economic growth.

3.1 Renewable Natural Resources

3.1.1 Land

Cameroon has a huge population and two-thirds of this population depends on land for forestry and agriculture since it contributes to a greater share of their income. In 2009, 19.8% of GDP was made of 70% of the country's farms and agriculture (Benjamin Elisha Sawe 2018, December 19). The farmers carry on their activities on a simple subsistence scale. The coastal regions have fertile soils and good climatic conditions that favor the cultivation of bananas, cocoa, oil palm, rubber, and tea mostly for commercial purposes. Crops like sugar, coffee, and tobacco are grown on the southern plateau. Coffee which is the common cash crop in Cameroon is mostly seen in the western highlands of Cameroon. While the natural conditions in the southern part of Cameroon favor the cultivation of crops such as groundnuts, rice, and cotton. Also, the lands in most parts of Cameroon has favored the drawing of trees for timber exploitation. Before 1978, agriculture has been the main force behind the economic growth of Cameroon, but when oil was discovered in Cameroon it brought in more economic benefits. Cocoa is the second important product from agriculture that is helping to bust the Cameroon economy. It makes up about 25% in total of non-oil revenues. The lands in 8 out of the 10 regions of Cameroon have soils that favor the cultivation of cocoa estimated to cover an average area of about 450000 hectares. About 600000 producers are involved in the cocoa sector and "a total of 5 million people is living directly or indirectly on the cocoa economy" (International Cocoa Organization 2011,)

3.1.2 Hydropower

Hydropower is considered as a source of renewable energy; it is when there is the transformation of the gravitational potential energy contained by a large mass of water in an elevation transforming it to kinetic energy overcoming certain height deference. The energy here is mechanical and is used directly to turn the shaft and turbines using hydropower. Kinetic energy is commonly used for the generation of electrical energy usually called hydroelectric power. Both the Kinetic energy and hydroelectric power is then converted to electricity with the help of the turbines and the large water bodies. All these processes are possible with the presents of hydroelectric power stations (Solar Energy Technology 2019, March 4). Cameroon has large water bodies and abundant renewable energy sources though not fully utilized. Some of the energy sources are

biofuels and waste, petroleum, coal, and hydroelectric power. These sources are the major sources of energy in Cameroon. Talking of Electricity, Cameroon has three important hydroelectric power stations and is known to have the third-largest hydroelectric power station in Africa after the Democratic Republic of Congo and Ethiopia. These stations are found in Edea, Lagdo, and Song Loulou. Hydropower schemes provide about 75% of electric power and other renewable energy source accounts for the remaining 25%. There is approximately 1000MW capacity installed which is obtained from estimated hydro schemes of 721 MW hydro scheme (Wirba, Mas'ud et al. 2015). Electricity being very important in the industries in Cameroon, the government has committed that 25% of electricity will be generated from renewable sources by 2035 with hydro sources being prioritized. Being one of the first countries in Africa to accept offers from investments in the energy sector backed by an electricity law in 1998 which led to the joining of Sonel in 2001 which is the national utility by the AES, making AES the majority shareholder. There were transmission and distribution concessions by the company which was obtained for 20 years with the company owning most of the generation capacity. Then in 2014, The private equity fund was then acquired by Actis and change the brand name to Eneo. Although Cameroon has the third-largest hydropower potential in Africa. They have a total exploitable potential of about 23GW principally located in the Sanaga basin which has a generating capacity of 115TWh/year but only 5% of this has been utilized to date. The government of Cameroon plans on increasing capacity in the future and there are ongoing large-scale hydropower projects which are in different stages of execution like Nachtigal (420MW), Lom Pangar (30MW), Memeve'ele (210MW). Despite the efforts put in place by the government, electricity is still not evenly distributed with only about 20% of the population made up mostly of those in the urban centers have access to it, and most of the rural dweller's sort to other sources of power for lighting and heating.

3.1.3 Biomass

When we talk of biomass energy, we talk of energy gotten from decayed plants and animals known as biological organisms as its source. Cameroon has abundant of forest in which the by-products from the activities of the forest ends up to form biomass and is classified as a renewable source of energy since a greater population of the country depends on it as a source of energy because of a limited supply of electrical energy and gas. The majority of

the Cameroonian population uses this form of energy (biomass) mainly for heating cooking and lighting purposes. Because deforestation is a big issue in Cameroon and more than 200000 hectares occupied by forests is used yearly for domestic heating, cooking, and lighting because it is abundant, cheap, and affordable and only about 1.5% of it is re-forested (Creative Commons Attribution 2018, July 10). In 2011, the Cameroon energy situation stated that the total energy consumption in that year of which 73% was made up of biomass, oil and gas products made up 20% while electricity made the remaining 7% which is equivalent to 6000-kilo tons of oil for the entire country and when converted it is about 0.3 tons of oil equivalent per capita (Djouedjom Talla Francine Gaelle 2018, July 24). When compared with the world average per capita consumption of about 2 tons of oil equivalent which indicates to get access to relatively modern forms of energy in Cameroon is still extremely low and with a greater effect of this weighing on the rural areas than the urban areas. This explains why biomass is an important integral part of the Cameroon energy source and thus it is classified under the group of renewable natural resources in Cameroon.

3.2 Non-Renewable Natural Resources.

Amongst the many natural resources in Cameroon, others can be grouped under non-renewable natural resources which some are minerals, petroleum, and gas that will be briefly described in this paper.

3.2.1 Minerals.

Results from recent studies have shown that Cameroon is endowed with more than 50 varieties of rich minerals that bring wealth in the country available in commercial quantities.

Before the main minerals produced in Cameroon were cement, cobalt, pozzolana, petroleum, and aluminium. Iron ore and bauxite are the most recent discoveries which are estimated to 200 million tons and one billion tons respectively (Nting 2009). Also, there are other mineral deposits like gold, diamonds, tin, marble, lignite, mica, nickel, silica, Columbo-tantalite, cassiterite, and silica sand which are amongst the recent discoveries and exploited in small quantities. Because these minerals can build wealth, it has attracted many potential extraction

companies into Cameroon to sign deals with the Cameroon government giving them the right to extract some of these minerals. Some of these companies include the US Company Hydromin Inc in charge of the exploration of bauxite, Australia's Sundance Resources Ltd exploring iron, Nu Energy Corporation Cameroon in the exploration of uranium, and Geovic Cameroon SA mining cobalt. Most of these investors are encouraged by the free tax in five years and a free transfer of funds by the investors to their various countries as stipulated in the 2001 mining code. By doing so, the government intends to expand the mining sector and increase more value to create more job opportunities in the country.

3.2.2 Petroleum.

Petroleum is one of the non-renewable natural resources that has created value in Cameroon in the past and even in recent years. You cannot talk about natural resources that have impacted the Cameroon economy without talking about Petroleum. It is one of the commodities that are on the list of exportation and that greatly increase the government revenue to finance other projects and also the creation of job opportunities in the country for the betterment of the citizens. SONARA which is a refinery in Cameroon that refined crude oil into petroleum products like, gasoline, kerosene, jet fuel, fuel oil, distillate, butane, and also distribute them in the national and international markets. Some of these finished products are also marketed in the CEMAC and west African countries. SONARA intends to increase its production capacity with the use of modern equipment and digitize systems.

Despite the efforts for the increase in production capacity, Cameroon is still a typical example of a "resource cursed" country. For example, in 2019 revenues gotten from oil (petroleum) were about 73.4 million USD. Although such figures are registered as revenues, only about 15% are refined by Cameroon refinery which is economically poor for Cameroon. Because of this, there are frequent supply shortages of petroleum products in the country backed with high prices, thereby not contributing to economic growth and development in the Country despite its abundant natural resources (Baiye, 2020).

This is caused by mismanagement from the Cameroon government officials since they divert profits from the sale of these products for their personal gains due to massive corruption, lack of transparency and accountability to the general public on how finances are controlled and managed. This is as a result a high level of centralized administration with secrecy between top

managers and the government as far as oil revenues are concern leading to improper management of the resource and corruption (Gauthier & Zeufack, 2011).

4 Cameroon Forest Resources.

The forest provides a bunch of benefits and advantages especially to human society as habitat and plays a very important role in regulating the environment in the natural ecosystems. The benefits from the forests can be seen or described as resources that people can depend on for fuel, medicines, timber or wood production, and commercial or recreational wood purposes. Apart from the forest beautifying the environment, it also acts as a habitat for wildlife, provides clean water and air, timber products, soil stability, and opportunities for recreation. More so, producing marketable timber which is an important economic resource. Cameroon's tropical forest covers an area of about 22 million hectares (ha) which is a very important part of the Congo Basin forest ecosystem. Cameroon's forests like most forests in the world is an important source of revenue, provides employment and ecosystem services, source of livelihood. According to World Resources Institute (WRI), the tropical rainforest of Cameroon acts as a habitat for over 320 mammal species, 910 bird species and 9000 plant species which are all part of the forest ecosystem (World Resource Institute, no date)

4.1 Geography.

Cameroon located in central is ranked the 54th largest country in the world with an area of 475,440km² which is a bit larger than the state of California and the nation of Sweden, has a landmass of 472,710km² and waterbody covering 2730km² (Best Country 2020,) The tropical rainforest of Cameroon which has a variety of importance occupies about 22 million ha. Cameroon experiences a variety of climatic conditions that and in the different climatic zone have contributed to the existence of the forests. The climate in the northern part of the country which is hot and semi-arid having an annual rainfall of about 760mm with temperatures going up to 40°C giving rise to vegetation made up of grass and scrubs mostly found in the northern savanna plains extending from the Adamaoua edge to lake Chad. This vegetation is as a result of the high median temperature and sparse rainfall. In the central part of the country, the moderate tropical savanna climate with an annual rainfall of 1500mm. The central region has a significant portion that is found on the plateau with an elevation ranging between 500 and 1200 beyond sea level and having a cloud cover that blocks intense heat making temperatures to range between 28°C and 30°C (Sharon Omondi, 2019.)

The central and southern part of the plateau has longer rainy seasons enabling the region favorable for forestry. The coastal region of Cameroon is made up of the monsoon and equatorial climate which is warm and humid having temperatures between 23°C and 33°C with a very high amount of rainfall which is considered the wettest place especially Douala and Kribi. In the western part of Cameroon has a similar climate like that of the central part of the country, this region is made up of Bamenda, Bamili, and Mambilla highlands. It has embedded with fertile soils situated around the mount Cameroon volcanic mountain, it's the area of the tropical rainforest according to the World Wildlife Fund was categorized as an ecoregion in the Cameroonian highland forest. The mount Cameroon is not considered the same as the other mountains in this area because it has a different environment due to the active Volcano. Because of the many diverse physical factors and environment, it has favored the growth of forests in different parts of the Country (Sharon Omondi, 2019).

4.2 Biodiversity.

Talking about natural resources and their importance in a zone or country and their sustainable modes of management is of the essence and it will be worthwhile to describe the biodiversity of these zones be it a continent or a country. Biodiversity is all about the richness in species, genotypes and functional groups and its importance on how it controls the level of efficiency of the processes and properties in the ecosystem in clear definitions according to UN Convention it is defined as “The variability among living organisms from all sources including diversity within species, between species and the ecosystem”(Carnus et al., 2006). This includes terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part. It is the Variety of life and its processes, including, genes, species, communities, ecosystems, and the evolutionary processes that keep them functioning.

Because of many human activities that have drastically speed up the rate of species extinction, it has raised a global concern in the last decades that has led to many countries to embark on sustainability management and protection of biodiversity including Cameroon.

Cameroon has diverse species of animals, plant species, aquatic life together with favorable climatic conditions, nature of their soil, and a favorable amount of rainfalls which has greatly improved on their biodiversity. Cameroon has a population of about 25million people embodied in about 150 ethnic groups. Being a country in the rich Congo basin, it has about 10000 different

species of a tropical plant, 400 different species of mammals, more than 700 species of fish, and 1000 species of bird. And it has an endangered population of wildlife such as Gorillas, Chimpanzee, elephants, bonobos, some living in highland or lowlands. The Congo basin forests have made it possible for the coexistence of humans, Flora, Fauna, and wild animals (Rainforest Alliance, 2016, August 19).

Human activities in Cameroon such as, fishing which does not have a positive impact on targeted species and also on species that are targeted for food and shelter, unauthorized hunting of animals including endangered species, and deforestation caused by illegal logging activities have greatly harm biodiversity. “Bushmeat” hunting is an activity that is very common in Cameroon especially within the local communities living around the forest, this activity has threatened the existence of wildlife especially in situations where there is a scarcity of food which is a practical situation in many less developed countries.

The clearing of the forests in some way affects the biomass which is an important component in the Cameroon ecosystem in which it makes available for habitats a diverse array of organisms such as thousands of vertebrates, invertebrate, lichen, bryophyte, and species of fungi. Many studies show that variations or changes in woody debris supplies due to forest management in both quantity and quality (size), has strong impacts on forest biodiversity. Also, too many human activities in the forest can lead to the loss of habitat, which is considered a great threat to biodiversity, that is why the Cameroon government has been trying to put in place sustainable means of management to protect biodiversity.

For example, (Tchouto et al., 2006) the Campo Ma’an rain forest in southern Cameroon is regarded to be a vital site within the Guinea Congolian regional center of endemism having high conservational values at local, national, regional and even global level. This area is known to have high biological importance. The government in the bid to install sustainable management of resources created Technical Operation Units (TOU) in this area to protect biodiversity and sustainable management for its natural resources. One of the components of the TOU is National Parks.

These national parks are legally protected but unfortunately has no demarcated boundaries, absence of management plans, there are weak protection and non-participation of stakeholders in the management process. Also, biodiversity hotspots such as the “Massif des Mamelles” and

the Elephant mountains are still located in southern Cameroon, though not in national parks still do not have conservational status given they are of high conservational priorities. They are mostly located near the coast and closer to the human settlement where there is a high level of human disturbance, which it is important to control the activities of humans to protect the flora and fauna which is of the essence. Since there are varieties of activities that take place outside the park, it might to overexploitation of resources, conversion of land to others uses which is also common here, if not managed sustainably will lead to a negative impact on biodiversity.

Lastly, conversion of lowlands and coastal forest to agricultural land is an activity which is the most destructive of forest lands, since it entails the conversion of large areas of forest land to agricultural lands. In such cases, the farmers are advised by the government to intensify their production systems in agriculture to minimize these conversions. Talking of biodiversity, it's a concept that most of the local communities are yet to understand which has cause conflicts between local communities and conservational initiatives and other stakeholders such as logging companies and agro-industrial enterprises. Cameroon is endowed with biodiversity, but they lack practical methods of sustainable management since most of their initiatives are only on paper (Tchouto et al., 2006).

4.3 Ownership.

Forest ownership is forcibly a measure of costs and benefits distribution from forest management involving different stakeholders both in the private and public sectors. In most countries in the developing world, most forested lands were owned by a group of individuals that are well defined in groups such as tribes, family or clans in the pre-colonial era, and in present days it has undergone some transformations as far as forest ownership is a concern (BROWN and Lassoie 2010). Cost and expenditures from the forests are variables that depict how the forest is being managed and that is why it is very important to throw more lights on forest ownership. As in most countries, the government is the main owner of the forests so is the case of Cameroon. The government of Cameroon has the sole right over the ownership of the forests and gives control to other stakeholders in the forest sector in the form of concessions. The Cameroon logging industry is mostly under the total control of foreign companies especially European companies. French companies hold not less than half forest concession areas. Since most of the big companies are in possession of the concessions, they turn to indirectly control the forests through subcontracting to smaller logging companies. Due to the

practice of sub-contracting, many small companies have received logging rights from the larger companies thereby making it difficult to know the actual number of actors or owners in the forest sector. Because of this, it is very difficult to document concession owners and actors involved in this sector. More so the 1994 forests law that was passed by the parliament provided a section for community forests, that is the communities around the forests will have control in the sustainable management of the forest and promoting forests resource management. Here forests community are given the rights over a portion of the forest areas to control and manage their communities. These rights are given by the central government of Cameroon thereby making them the sole owners of the forests of Cameroon since they are the only body in charge of issuing rights and concessions to other actors and stakeholders in the forests sector(World Resource Institute 2000,).

5 Literature Review on Illegal Forest Activities.

The study of illegalities in the forest sector has been a vital topic for most researchers, especially in recent years. This is as a result of the growing importance of the forest and its effects on the economy as well as the environment. This topic has brought many debates and has captured the interest of scholars, in which some authors have written on this topic giving their ideas by coming out with models and policies that can be applied in the forest sector to remedy this illegal practices that are considered not good for economic growth both the national and international level.

Illegal forest activities have considered a menace in the forest ecosystem in terms of sustainability (Tacconi, Boscolo, & Brack, 2003) examines policy options that are at disposal to reduce the illegal forest activities nationally and internationally. They came out with violations of different types of the forest sector. These include violated rights of indigenous people, acts against the constitution involving the public and private right of ownership as well as the violation of administrative, criminal, and civil law.

Violating regulations in forest management and other agreements that are contractual both in the private and public forest on acts against forest which is the main act that defines illegal logging. (Contreras-Hermosilla, 2002) in their overview groups, the various illegal acts under categories so as define the illegalities that occur in different stages or departments in the forest sector according to his view is made up of mostly negative aspect which includes,

- ❖ Deforestation as a result of illegal logging has led to the damage of biological diversity.
- ❖ Millions of dollars lost due to this illegal logging have led to a reduction of government revenue.
- ❖ Encourages bad governance as a result of illegal revenues acquired through corrupt activities thereby supporting bad governments so as to gain more revenue and stay in power.
- ❖ Another impact is the increase in poverty as a result of individuals losing their resources which indirectly the government revenues negatively by reducing it which would have been used to boost poverty reduction programs, reducing sustainable management incentives through the distortion of forest product market.

Also, illegal forest activities promote regional and national conflicts by funding them thereby worsening the situation.

According to (Tacconi et al., 2003), despite all the negativities that are associated with illegal logging activities he brought out points to show that illegal activities in the forest might also have some positive outcomes to some stakeholders.

- ✓ Illegal logging forces some stakeholders to develop other alternative uses for forest land that will benefit them.
- ✓ Due to the advantages of military personnel as a result of illegal forest activities in the form of income, it will cause them to be more willing to support the government.
- ✓ Income is raised through illegal logging activities mostly by the poor and unemployed.
- ✓ This bad practice facilitates competition in the national industries through the reduction of timber prices caused by illegal activities.
- ✓ These Illegal practices may benefit consumers as a result of the reduction in prices of forest products such as timber.

Their work brought out a distribution of different stakeholders based on a range of financial, economic, environment, and governance impact which helps in coming out with policies that can help to regulate and control the problem of illegality.

Globally, it is impossible to ascertain the level of illegality, but it is obvious that it has led to the loss of revenue to many governments both in the developing and developed countries. According (Group, 2002) due to illegal logging, it has made governments lose about 10 USD to 15 USD each year. Illegal logging got increasing attention in the 1990s with a focus on the forest sector and their economic, environmental and social impacts. These illegal activities are on the rise because of the increasing demand for forest products in producer countries which has led some stakeholders to indulge in illegal activities. It is worth noting that majority producers and exporters of forest products are from the developing countries and are particularly the ones suffering from illegal logging activities. This is because there are limited resources to enforce forests laws, a high degree of corruption, international companies offering investment making them proportionately powerful, weaker civil societies, unlike industrialized countries. Rights that are allocated for the harvesting of timber has often been used as a wealth mobilizing mechanism to reward the allies that beget patronage.

The Fraudulent nature of illegal logging activities makes it more difficult to estimate but authorities still find a way to carry on the process. According (Brack, 2005), Worldwide, estimates show that global trades are worth 150 billion USD and one-tenth of it is made up of illegal activities. In 1998, studies in Indonesia implied that over 40% logging throughout was illegal which amount to an excess value of 365 million USD, up in the Amazon about 80% might not be in legal compliance with controls put in place by the government. In 1997, studies in Cambodia carried out by the World Bank and Global Witness indicated that Illegal extraction costs between half to one billion USD covering over 4 million cubic meters in one year which is about ten times the size that is legally harvested with a continuation of such extraction the country will be totally logged out in a period of ten years. In many forest producing countries, illegal logging shows a major loss of revenue which causes environmental damage. Estimations coming from the Senate Committee in the Philippines in the 1980s shows that the country lost about 1.8 billion dollars a year because of illegal logging activities as a result of this, there was a catastrophic flood in the Philippines that claimed the lives of more than 1000 people in December 2004 and others missing. This is blamed on the excessive Illegal logging that has deprived the forested hillside which could have stopped this havoc by absorbing the flow of water. Revenues lost in Indonesia as a result of illegal logging range between half a billion to 2 billion dollars per year. Also, huge sums of money from illegal loggings are used for the instigation of regional and national conflicts example is the Khmer Rouge forces in Cambodia

were maintained with revenues from illegal logging in the mid 1990s. This continued until the Thailand government together with that of Cambodia at the close of 1996. In the case of Liberia, there were also conflicting issues linked to timber in which sanctions were made by the UN security council in May 2003 against timber exports aiming to reduce war funding that was raised through illegal logging activities.

Illegal logging is an activity that happens all over the world, but its effect is greatly seen in the less developed countries especially Asia and Africa, this is because schemes that usually ensure sustainability and management are lacking (Reboredo, 2013). For example, in the percentage of total forest area, the certified forest is just 1.4% in Asia and 1.1% Africa, while western European countries 50.8% and that of North America 32.7%. However, North America and Europe still experiences illegal logging (Clark, 2011)

More so, illegal logging at times leads to deforestation which causes the reduction of stocks of Carbon, degeneration of biodiversity, affecting water by reducing the quality. Bad practices in the forest sector also have a negative impact on the resources that are provided by the forest such as medicines, fibers from wood and non-wood forest product that sustains communities living around the forest.

Other authors such as (Li, Buongiorno, Turner, Zhu, & Prestemon, 2008), assessed the economic effects on forest industries by predicting changes in the market if Illegal logging were slowly eliminated over a period five years. These are global predictions and involves major countries with mostly logging sawmilling industries, he stated that eliminating illegal logging will vary from country to country and doing so will have a small relative effect globally since the impact will vary depending on the country and the magnitude of local illegal logging or on how dependent is an industry on imported timber.

The authors used the Global Forest Production Model (GFPM) in which the “purpose was to predict by how much, and when production, consumption, imports, exports, and prices of forest product may change, depending on the external or internal forces such as economic growth, global trade liberalization, and new environmental policies governing either the use of forests products or the management of the forest”.

The GFPM predicted the effects of illegal logging of industrial round wood between 2007 to 2020, considering illegal and non-illegal logging through specific policy assumption that there will be a progressive reduction of the level of illegal logging of industrial Roundwood in the year 2007 and by 2011 there will be total eradication of illegal logging. There were repeated calculations based on a set of assumed high and low initial rates to verify the sensitivity of the results to that of uncertain current rates of illegal logging.

Notwithstanding the initial logging rate, the impact of eliminating illegally logged timber led to a moderate relative variation in forest production, product prices, trade, consumption, and forest stocks at the level of the world. Particularly world prices experienced a rise of 2% to 4% depending on the product. There were large differences in effect across countries. Generally, there was a decrease in production in all the industries from logging to paper and pulp in developing countries. Together there was an increase in production in developed countries and however, without fully making up for the decline in developing countries thereby causing an increase in world prices.

From their results, elimination of illegal logging causes relative prices to increase more than the relative decrease in production, annual total producer revenues, and consumer expenditure experienced a 2% increase worldwide. Major countries experience both increase consumer expenditures and producer revenues except for countries that were assumed of having very high initial illegal logging rates such as Brazil and Malaysia. Countries that rely mostly on imported round wood that are coming from countries with very high illegal logging rates such as China in which consumer expenditures rose two times more than producer revenues. Countries like Sweden, the United States, Canada, and New Zealand experienced an increase in producer revenue which is twice the increase in consumer expenditure because of the low rate of illegal logging.

The author added that the effects of eliminating illegal logging on value-added on round wood were negligible at the worldwide level. Countries with high illegal logging had a large decrease in value-added such as Indonesia, (12%) reduction, and to countries that depend on imported timber such as China (4%). On the other hand, value-added increased in countries with less illegal logging and efficient wood manufacturers such as Canada and United States with 4% and 2% increase respectively (Li et al., 2008).

Illegal logging has greatly been a worldwide issue and so is the case of Cameroon which has been a cause for concern in recent years. The government of Cameroon has indulged in initiatives like the FLEGT and the VPA with the EU to fight against the bad practices that are taking place in the forest sector with the efforts of reducing illegal logging. Despite all the government's efforts to combat these bad practices, illegal logging has till remain a major concern in Cameroon (Carodenuto & Cerutti, 2014).

In the case of Cameroon, (Cerutti & Tacconi, 2006) addresses the state of illegal activities in Cameroon such as the illegalities in the allocation of forests concessions and other logging permits and inaccuracies in the reports that concerns illegal logging in Cameroon. The irregularities involved in the process of allocation of concessions, constitute activities that are considered illegal in the forests sector. Also, these irregularities can cause unsustainable practices given that the companies chosen do not have appropriate sustainable goals and their main aim is to rapidly exploit the forest, which might negatively affect the country economically leading to a reduction in government revenue and potentially harming the livelihood of the Cameroonian people.

The allocation of concessions and sales of standing volume through the new auction system introduced technical and financial scores given to bidders which are then ranked before permits to log are granted. The bids are evaluated by an inter-ministerial commission and ranked in scores which is then finally assessed by the ministry before sending it to the prime minister's office for approval. Even though there is this new system for action, illegal activities are still in their hike.

5.1 Irregularities During Auctioning and Sales of Concessions

The auctioning system was introduced to seize logs and penalize defaulters involved in illegal activities as a way of enforcing the law on them. However, this was taken advantage of by some government officials through the act of corruption by awarding concessions to bidders that were not the highest in the bidding process. This was due to their gains and in some cases a personal relationship with the bidders thereby causing the state to lose money since there were better bidders for the auction. These raised concerns and the world bank recommended the government to put in place independent observers with the aim of rectifying the issues

especially when it comes to the corrupt practice in the process of auctioning (Cerutti & Tacconi, 2006).

Even so, bidders were still able to give incorrect financial situations that oppose the ones required by the law, and even those who did present incoherent reports, false, and conflicting information in their reports. All these discoveries were made by independent observers. The independent observers also noted that there was insufficient submission of data in the selection procedure, missing information about applied sanctions, mills condition, surfaces, and titles previously granted. Lack of ethical code of conduct for some officials in the ministry, public notaries, lawyers, bankers, and accountants provide false documents to bidders which enables them to gain access to the forest resources (Behle, 2001).

More so, during the sales of a permit, the lack of specification on the areas and the boundaries that permits are granted to be harvested is a cause for concern, since most companies that were supposed to log in the permanent forest domain are now shifting to log in the non- permanent domain which rights to harvest in the domains belongs to the rural population having the control of the community. Small scale loggers are also granted permits in these non- permanent forest domain called special permits following the old law which is not allowed in the new legal framework, thus the non-permanent forest domain has recently experience increase in granted permits to small, medium and large companies for logging of timber which is sold in the export market. According (Cerutti & Tacconi, 2006), the irregularities in the process of allocating permits or concessions only aggravate the level of illegal logging and illegal activities in general in the Cameroon forest sector. The driver of most of the illegal practices in this sector is corruption.

Also, (Amariei, 2005) made a comprehensive analysis of Illegal acts that is typical in the case of Cameroon and applies in most African countries in conformity with (Contreras-Hermosilla, 2002), such as

- Harvesting outside concession boundaries
- Partaking in harvest without titles and carrying out harvest in protected areas
- Not respecting management plans regarding technical aspects and geographic scope

- Cutting timbers which is more than the amount permitted, that is going above their concessions.
- Carrying out a harvest that is below the minimum exploitable diameter
- Transportation of wood that is against the law
- Nonconformity with roles and regulations on the production records
- Nonconformity with obligations that are stated in the “production terms and conditions”

Data analysis from global witness 2002/2003 approved by the Cameroon authorities in charge of the forests that involves 58 active concessions that are equivalent to 76 forestry exploitation titles as presented in SIGIF. Global Witness concluded that 30% of timber were harvested above the authorized volumes (Amariei, 2005). Timbers with high economic potential are logged more than the permitted volumes and at the disadvantage of other timber species that are regarded to have less economic value. World Bank estimated that about 200000m² of timber makes up a significant proportion of domestic consumption and is both supplied illegally by the formal sector and individuals who involve in small scale logging.

The author also recounts that there were other activities that emerge as collateral to illegal logging which included, illegal road building, fraudulent marking of logs, Laundering of wood, commercial hunting of bushmeat, and falsification of transportation documents.

Laundering of wood. During the process of auctioning, some government officials including wood loggers take advantage of the situation and engage in illegal activities such as the laundering of illegally harvested woods. Many cases of this magnitude are usually not documented in any records. This action (laundering) is as a result is of illegally logged wood or timber. Illegalities of this sort are mostly because corruption by some government officials and the absence of well-coordinated auction system

Tax Invasion. The invasion of tax is a common practice that exists in the Cameroon forest sector which makes it fall amongst the category of activities considered to be illegal in this sector. This form of activity is directly connected to the harvesting of woods that are not in conformity with the law and causes the government to lose a significant part of its revenue.

(Amariei, 2005) estimated that felling tax alone leads to loss of about 5 to 10 million USD each year, taking into consideration the estimates used for the total production of wood. This type of practice is as a result of not having appropriate means to manage and control fiscal laws related to the forestry sector and lack of severe punishment for tax invasion due to corruption and personal interest.

Hunting. This is also one of the illegal activities that happen in the Cameroon forest. Illegal hunting of wild animals such as elephants, tigers, hippopotamus, leopards, monkeys, gorillas, turtles, pangolins, and many other animal species of which some are prohibited from perching by the Cameroon government due to scarcity of some species and encourage sustainability. These activities are carried out by people because there are high possibilities for them to go unpunished and hence it is considered as one of the activities in collateral with illegal logging in the Cameroon forest sector.

Many authors and writers have identified that there is indeed illegal logging and also associated illegal activities in the Cameroon forest sector, and others such (Alemagi & Kozak, 2010) in their work developed some causes that have led to illegal logging in Cameroon such as poverty, conflicts, license schemes

Poverty: It is one of the root causes of illegal logging in Cameroon. Given the fact that the majority of Cameroon youth are unemployed, and even university graduates with degrees yet have no jobs, others with jobs have very low salaries and putting in long hours of work. Because of these, it has led to very high levels of unemployment as a result of the country's weak economy which has caused many Cameroonians to indulge in unlawful activities with no exceptions of illegal logging. Also, with Cameroon falling under the categories of highly indebted poor countries (CIA, 2010) with half of the country living Under 2 USD per day. This incident weighs more on those living in rural areas. Authors such as (Kaimowitz, 2003) believes that the poor are mostly the indigenous community that is unable to acquire documents that can help them participate legally in the forest which is exactly true for the case of Cameroon. Because of this, it has prompted many to engage in illegal logging and associated illegal activities in the forest sector.

(Amarei, 2005) also, suggest that a high level of illiteracy and lack of education only aggravates these illegal activities since most of the indigenous people do not take lessons or understands forest sustainability and the essence of having a high-value wood product.

Conflicts: Conflict is noticed in Cameroon at different levels and (Amarei, 2005) state that it is one of the problems aggravating illegal logging. For instance, conflicts between ministries such as the Ministry of Environment and Nature Protection which duties are to articulate, execute, and assess the state's policy concerning the environment, whereas MINFOF is in charge of the forest sector by laying down laws, controlling, implementing policies in the sector. These have created a misunderstanding of roles amongst these ministries thereby creating conflicts between them. Because of this conflict, some forest actors have taken advantage of this situation by carrying out illegal forest activities, communities holding up trucks with wood, disagreement between chiefs and village elites that make up the management committee in communities where trees are logged (Alemagi & Kozak, 2010).

The goal of this paper is to find out why there is increase corruption in the Cameroons forest sector what is the cause of it.

6 Method

To meet up with the objectives of this paper, the study will mostly be of a theoretical approach that will consist of presenting and analyzing a theoretical corruption model by (Andvig & Moene, 1990) while relating it to my study. In addition to this model, I will make use of existing literature related to my studies. This paper will also take into consideration legislation and laws that are put in place by the Cameroon authorities, regarding the forest sector.

7 Corruption

Corruption is an act that is widely used in different domains and has a variety of definitions depending on social, political, or economic concepts. Most of the time, corruption is analyzed generally as a social phenomenon that is most common in comparative research. It stems mostly from the decisions of individuals (Groenendijk, 1997).

Given the context of this paper, corruption can be defined as the act of state officials selling services for their personal gains despite formal laws, and the acceptance of illegal acts in such a service. Corruption goes alongside with the abuse of power by government officials or public authorities for committing or carrying out illegal activities, such as illegal timber trade carried out by officers in charge of the forest sector and illegal activities including stealing of private and public properties by private individuals and companies (Siebert & Elwert, 2004).

Most people engage in corrupt activities because of the profitability they gain out of corrupt activities and the incentives that come along in engaging in corrupt activities.

7.1 Reviews on Corruption and Some Theories

There exist a variety of corrupt behaviors that are triggered by many factors contributing to corruption, many explanations are offered that it is difficult to classify them in any systematic manner (Caiden, 2001). Corruption can be attributed to almost anything, while opportunities exist everywhere, the degree of corruption varies widely amongst individuals, public agencies, administrations cultures and geographic regions, (Caiden, 2001) some writers and schoolers have written on the causes of corruption both in the developed and developing countries or better still lower-income countries and higher-income countries

(Huberts, 1996), in his research shows that a chain of social, economic, political, organizational, and individual causal factors is important in the explanation of cases in public corruption. some writers have come to the conclusion that corruption is not good and it is considered an act of moral decadence (Fijnaut & Huberts, 2002). For someone to be attributed to a corrupt person it instantly put him in a situation that he is regarded as one with immoral conduct. This is because corruption is a term that is morally loaded. In this light people engage in corruption when the potential benefits of corruption are more than the potential costs of being corrupt, especially by public officials, (Rose Ackerman 1978). This public official could be any individual who sees himself to be rational and trying to maximize his utility level when he chooses to become corrupt given that the advantages, he receives outweigh the disadvantages. (Klitgaard, 1988) stated that if the benefits that are gotten from corruption minus the probability that the corrupt person is being caught multiplied by its penalties are more than the benefits of not being caught.

“Corruption is a crime without a victim and the corruptor and the corrupted both benefit from secrecy” (FitNaut Hurbet 2002). People from lower-income countries believe that corruption is more common in the public sector, unlike high-income countries that corruption is most prominent in the private sector.

Corruption is always classified under; political corruption and bureaucratic corruption. Economists are mostly interested in the latter and therefore there is more literature written by the economist on bureaucratic corruption. (Bardhan, 2006) explained that there are situations in which political corruption and bureaucratic corruption are “interlocked” that is, it is difficult to distinguish between political and bureaucratic corruption such as communist countries like China and Vietnam in which top-ranking bureaucrats are politically appointed not necessarily career civil servants, as such corruption is organized hierarchically. He also cited an example such as India in which career civil servants are recruited based on merits through written exams and not through political appointments. As such the career civil servants sometimes do the bit of the politicians in the ruling party by executing their corrupt transactions, this is because of the fear of losing their positions and fear of being transferred to undesirable locations. Bureaucrats and top politicians are most of the times partake together in corruption.

On the other hand, there are situations that administrative (bureaucratic) corruption differs completely from political corruption. For example, countries that are democratic, there is much scrutiny and competition face by the politicians coming from the opposition, while those in the administrative departments are confronted with lesser competition and scrutiny from the public.

Countries such as the United State of America, bureaucratic corruption to an extent is successfully contained but still evident in departments such as drug control, police, housing, and other departments. On the other hand, political corruption is often a normal practice and more common, that is many laws in the United States are practically for sale especially for politicians aspiring for top-ranking positions against elections funds.

Another point brought up by the author is the aspect of measurement of corruption, he indicates that there is usually a problem in the measurement of corruption and how it is quantified especially in different people’s points of view. To say a country is more corrupt than another country can be seen from different angles and by different people, some people analyze the number of corrupt transactions in that country and others base their interest in the amount of

money that changes hands as a result of the corrupt transactions. This can bring out different corruption rankings in countries. For example, a country like Gabon (Africa) where there are many corrupt practices and when compare with a country such as South Korea (East Asia) considered to be corrupt too, the amount of money that really changed hands in these corrupt deals in South Korea is actually more than that in Gabon. The reason is that severe corruption in Gabon has already drowned the economy such that the total amount of money that changes hands is much smaller than that from South Korea. Therefore, in comparison, we have to be clear about what we are actually measuring. In his point of view, corruption is measured from our perceptions, for example, a country where there are small police bribes on a daily basis that are being seen a person in his views that country is very corrupt but if we sum the total amount of money that is gotten from these daily corrupt activities is not even up to the amount of money that a country with just a single large corrupt transaction like the buying of fighter aircraft in the black market(Bardhan, 2006).

Also, (Bardhan, 2006) pointed out that unlike other social scientists such as anthropologist and sociologist who sees corruption differently the way economist does. Economist are mostly interested in the “incentives and organization” while the other social scientists concentrate more on “social norms and moral values” and high levels of corruption is as results of bad morals. Let’s say country A, has a culture which is not considered as corruption but in the country, B is considered as corruption. So, economists’ advice not to quickly jump into conclusions that country A is more favorable to corruption than a country which explains why some economist has come up with multiple equilibria models as far as the explaining and analyzing corruption is concerned.

At times people might believe that by engaging in corruption they will be bypassing regulations that are mindless. In circumventing roles and regulations might take any of the following forms with different implications.

- The Bribing of bureaucrats to do their jobs in which they are paid to do and doing it effectively they charge a fee for doing their duty
- The Bribing of bureaucrats go against the law, which is doing what is known to be illegal of which they are not supposed to do in the first place.

The above points have different ramifications. The first case is more prevalent which is known as “speed money” trying to bribe your way so your documents or file can be treated first or move faster. Actions like this only always have a negative impact and in such it creates “perverse incentives” to bureaucrats. In situations like these, bureaucrats can intentionally delay files just to be able to get bribes and in such cases instead of a file to move on faster, it will instead be slower due to the actions of the bureaucrats in order to raise incentives for his personal gains since delaying the files means having more money. Some bureaucrats will boldly ask for bribes and if you don’t comply, they will personally delay your files. Here both the briber and bribe are into secrecy such that the person bribing cannot report the bureaucrat to the judicial authorities that they did not keep to their part of the deal but can report them to higher authorities that he paid for services that were normally legal and free.

In the second situation where what the bureaucrat does is known to be illegal, that is doing what he is not supposed to do which is more dangerous. For example, an auditing officer being paid not to report the right information from his audit and the same to custom officers being paid to smuggle contrabands into a country. This situation is more dangerous because both parties involved in this corrupt act cannot report each other and non can report the other because they both acted illegally and cases like this are more persistent and only helps to increase the levels of corruption.

In most economic literature, there is also a distinction that is considered very important between centralized corruption and decentralized corruption. In the centralized system of corruption where the briber pays money to a top bureaucrat for services or a job to be done, here the briber pays the money only to one person and is guaranteed of the job being done and (Bardhan, 2006) terms it a “one-stop” shopping and here as economists will term is there is a minimal negative externality. An example can be the soviet regime in Russia and communist Russia where a high-profile member who belongs in the communist party receives bribe and the purpose of bribing is achieved. Unlike in the decentralized corruption system, the briber does not have a guarantee if the purpose of which he is bribing will be attained. This is because there are many factions or fragments that he must go through, and each bureaucrat here acts independently. In this system of corruption, there is an increase in the problem of negative externalities since everyone acts independently of another and there is a high probability that the job is not done.

Because of problems faced by different aspects of corruption, some economists such as (Andvig & Moene, 1990; Cadot, 1987) have come out with models showing equilibria in corruption. Some equilibrium shows a high degree of corruption while in other equilibrium there is an indication of low levels of corruption and how corruption has different equilibria in a public administration depending on different levels of positions. This is because there a variety of models on which corrupt actions depend on, and how much is the occurrence of these corrupt activities. For say, if you are being regarded as a corrupt person then you already get a reputation of being a corrupt person. Also given that you work in an environment that there are high levels of corruption, in this scenario, there is a high degree of you being corrupt too. And if a majority of persons in an organization are corrupt then there is a high probability that lesser efforts will be used in order to get to a corrupt bureaucrat and in a situation like this it will be difficult to expose those who are involved in corrupt activities. This explains how culture can determine the levels of equilibrium in corruption economic models, of which culture can determine the outcome of the behavior of a person who decides to be corrupt.

In an article by (De Graaf, 2007) that the more we are aware of the causes of corruption the easier for us to better design instruments and policies in order to fight corruption. In his article, he cited six groups of theories that can be best used in the explanation of the causes of corruption laying infancies on the discussion on the control of corruption in which these theories bring about. Below is a brief summary of the causality of corruption theories that are mostly found in literature according to (De Graaf, 2007)

The public choice theory: Under this “public choice theory”, trust within personal relationships increases the chances of corruption by making sure the corrupt services are delivered and the chances of being caught are minimized. This theory depicts the actions of the corrupt officials, their rationality, consciousness, and how they deliberately weigh the corruption process such as the advantages and disadvantages. This theory predominantly explains why individuals will decide to be corrupt, as such they concentrate on the costs and benefits of being a partaker in a corrupt act. In order to regularize situations of this nature, there will be a need for increasing the cost of corruption by creating avenues that increase the chances of being caught than going scot-free. Increasing the cost is therefore reducing the benefits since it is not quite realistic to influence the benefits that are gotten from corruption.

Bad apple theory: “The bad apple” theory of corruption is mostly based on the moral values of an individual, that is if an individual has a moral deficiency it is most likely to make him corrupt. This could be because of the way he grew up, and his choices of corruption are influenced by his bad behaviors such as greed and his quest for personal gains. According to the author, this theory cannot be empirically shown, and as such its mostly found but in the literature. In cases where corruption is as a result of a person’s moral value, corruption can only be eradicated by improvement in the moral values of such persons.

The organizational culture theory: This theory is established on corruption in the intermediate level of an organization not necessarily because of the individual motive of the corrupt agent but on the culture of the organization. The practice (culture) of an organization can affect the mental situation of an agent which might lead him to develop a corrupt behavior. The causes of corruption are assumed to be encouraged by the culture of the organization. That is, the deficiency in the “proper machinery” of governments instigates public officials to act in a corrupt manner. Taking examples from police departments in the world according to (Punch, 2000, 304) “ if we can scan these activities then it is plain that we are no longer dealing with individuals seeking solely personal gains but with group behaviors rooted in established arrangements and/or extreme practices that have to be located within the structures and culture of police work and the police organization”. In his conclusion “the implications are that in tackling corruption and other forms of police deviance, it is vital to focus on group dynamics, the escalation from minor to serious deviance, and on the negative elements in the police culture”. Under this theory it’s worth noting that in an organization, not every member makes up the bad seed, meaning not every member in that organization is corrupt and the theory describes certain conditions that might lead to the occurrence of corruption. The theory concentrates more on the organization than a corrupt individual. That is, depending on the culture of an organization it might be the cause of corruption, even though it’s not quite clear how this relationship can be established. The author proposes close checks on the organization such as shaping their decisions constant change of leadership as regulatory policies.

Clashing moral values: Unlike the other theories we just discussed above, the “clashing moral values” theory considers corruption at the macro level, which is the level of the society. Here, the society influences the way an agent behaves as to whether to corrupt or not. An individual’s moral values or norms might be influenced by those (morals and values) in the society. Of

which corruption is not necessarily for personal benefits (gains) for being corrupt but because of family ties or loyalty to a friend. Corruption of this nature is bound by the moral values of the agent as such, he believes he is obliged to. The works of (Höffling, 2002) makes a distinction of micro morality and macro morality, where micro morality instigates a public official to show favoritism to a friend or family due to the moral obligations to them. At this Micro morality level, the bond between the official and that of a family and friends is very strong as such he feels obligated to be corrupt. On the other hand, Macro morality deals with the society in which the agent (public official is expected to act normally to everyone without bias since there are no strong moral obligations because he deals with strangers. The macro morality is mostly treating everyone the same without considering family or friends, but the reverse is true for micro morality.

Another theory according to (De Graaf, 2007) is the “ethos of public administration theory” where it studies both the political and economic structure in an organization. The main issue here is the culture within public management and the society as a whole. Base on this theory, an “officials’ performance has a causal path from the societal pressure through the level of the organizations”. Without considering the morals and integrity issues of the official instead, they concentrate mainly on the ‘effectiveness’ of the official causing him to be corrupt. The official here can careless about his integrity but focus more on achieving the goals of the organization which is his responsibility and in effect being corrupt in the process. Changes in the public sector management can also change the public management’s culture in which the quality of moral ethics in the public service is weak paving the way for more instances of corruption. Economists who do not consider the ethical aspect of public service such as good morals, public interest, accountability, merit, integrity according to others (economist), contradict the ethos of public organization, thereby leading to an increase in corruption. It is not an easy task to establish corruption control based on this theory since it is often arduous to influence the culture of a society, and since this theory depends on the morals of the society that at times might not be right thereby leading to corruption.

The last group of theories that exist in literature is the correlation theory according to the writer. Unlike the other theories, this one deals with specific factors such as political, social, organizational, and even individual factors as most of the time seen in research. Here variables are considered at almost all the levels, that is from the individual level, the organizational level,

and the level of the society. Sometimes these variables are said to be the cause of corruption and in most cases determined by explained variance. The causality of corruption that exists in studies making use of this theory is most of the time not exactly clear. “Often Statistical significance is used to signify active causality without actual evidence”. In cases like this in order to check for causality, there is always a link that is established between income and corruption. For instance, a country having fewer incomes (less developed countries) have a higher tendency of having corruption in their various systems (L. W. J. C. Huberts, 1996) other studies in this group are in the form of quantitative comparison, an example is the work of (Holbrook & Meier, 1993). Based on the study that was conducted by the United States department of justice on the integrity of fifty American State public officials. It was discussed in their conclusion that important influences of corruption are historical, cultural variables, and urbanization, and education.

Authors such as Hubert (L. W. J. C. Huberts, 1996) utilized panel surveys by interviewing international experts in almost all-important domain of profession, questioning them about corruption and fraud in their various countries. He had participants from 49 countries with a total of 257 respondents. This type of research is very common and usually used by Transparency International in order to be able to find out the corruption perception index of a country. The experts were asked according to their personal views amongst social, economic, political, organizational factors which can be correlated with corruption.

He afterward concluded that there are some aspects that are considered as causes of corruption which are of the same nature in the lower and higher-income countries, such as “values and norms of individual politicians, civil servants, lack of commitments to public integrity of leadership, organizational problems and failures, the relationship between the public sector and business, and the strength of organized crimes”(L. W. Huberts, 1998).

Correlated theories can help in the designing of corruption policy controls, depending on the factors that are correlated with corruption.

The above-mentioned theories are the contextual theories of the causes of corruption explored by (De Graaf, 2007) with the intentions of knowing more about corruption in so as to be able to come out with policies that will best tackle corruption. That is, the more we know about the

causes of corruption, the better it is for us to come out with instrumental policies that can help to curtail corruption. The challenge here is the difficulties to come out with a causal link.

Also, (Shenje, 2016), uses the game theory approach in analyzing the causes, mechanisms, and the thinking process that are involved in corruption and the behavior of bribery. That is the psychological process that is involved in engaging in corruption and bribery behaviors since an individual can either choose to be corrupt by accepting a (or giving) bribe. This means all economic agents have preferences but when there is the introduction of incentives, some of these preferences can be changed as in the case in consumer choice. He concluded that bribery behavior is directly (positively) related to revenue but have an opposite relationship with cost. (Lianju & Luyan, 2011) had the same conclusion that corrupt behaviors have a negative relationship with cost but positive when it comes to the psychological expected net revenue. They proposed that to temporally reduce corruption, corrupt individuals should be sanctioned so as to increase their cost by reduction of powers in control by officials and tightening supervision.

In addition, other factors can be considered to be the cause of corruption which are common in most low-income countries with Cameroon inclusive are higher discount rates, inequality in social status, low-risk aversion, low wages and countries that are faced with high inflation and recession rates are bound to be corrupt, (Cadot, 1987; L. W. Huberts, 1998)

Corruption has been an increasing call for concern in the Cameroon forest sector and many authors have established in their articles that corruption is indeed a problem that has affected the Cameroon forest sector. (Cerutti, Tacconi, Lescuyer, & Nasi, 2013; Peh & Drori, 2010; Tacconi, Downs, & Larmour, 2009) all have written about corruption and even tried to bring out some causes and propose some solutions for these bad practices. Despite many concerns and solutions that have been put in place to combat corruption, it has been an increasing phenomenon in the forest sector. The question is why is it that there is too much corruption in the forests sector of Cameroon? This question will be made clear after the presentation and analyzing the Andvig & Moene, 1990 corruption model in relation to my case study.

This (Andvig & Moene, 1990) is a model of my choice since it explains what you stand to gain or lose if you decide to be corrupt. It focuses on economically motivated corruption and their

analysis is strictly based on public bureaucracies. Their model shows that no bureaucrats that are honest are falsely punished for corruption, especially in cases that involve many bureaucrats. It should be noted that this model does not take into consideration corruption that is politically motivated, this does not mean its importance has been rolled out. This model is about the demand and the supply of corruption, meaning if there are high incentives gotten from these practices then there will be high levels of corruption and equilibria in different scenarios. But for simple illustration and the purpose of this paper, I will not include the different equilibria discussed in the model since my focus is on the incentives and mechanisms.

7.2 Presentation of Corruption Theoretical Model by (Andvig & Moene, 1990)

7.2.1 Incentives for Corrupt Acts.

A public organization member acts in a corrupt manner if he deals directly or indirectly with a member who is not of the organization. The member within the organization uses the resources of the organizations including the power of decision making and special information to receive payments that are not in accordance with the rules or laws of the organisation

A demand for corrupt act is when a member of the public make efforts to bribe the bureaucrat. Bureaucrats who choose to take bribes are the suppliers of corrupt services. The bribes are payments for their illegal services. In the model, the length period is short meaning a bureaucrat and a member of the public can at most carry only one transaction of corrupt service in a period.

7.2.2 Assumptions and Simplifications

- The model assumes that corrupt services are homogenous which means the number of corrupt bureaucrats indicates the level of corrupt transactions and in this model is normalized to 1.
- All potential bribers demand the same amount of bribe.

- Bureaucrats that are corrupt does not look or search for bribers.

Let \mathbf{y} be the fraction of corrupt bureaucrats and $1 - \mathbf{y}$ is that of non-corrupt bureaucrats. Given that the person who is bribing (briber) does not have any idea who is corrupt and who is not, he must find a person who is willing to accept bribe (bribee) by searching. The probability that he finds what he really wants after an exactly \mathbf{N} trial is;

$(1 - \mathbf{y})^{\mathbf{N}-1}\mathbf{y}$) Subsequently, \mathbf{N} is having a distribution which is geometric with expected value $E(\mathbf{N}) = 1/\mathbf{y}$ which shows the average number of trials that the person giving the bribe must try before finding a bureaucrat who is willing to accept bribe q_i is considered to be the sum of moral and real costs of a private agent i incurred in his efforts to bribe a bureaucrat. The price of corrupt service is \mathbf{b} , and the excess profits for obtaining a corrupt service is $\pi_i(\mathbf{b})$, where $\pi_i'(\mathbf{b}) > 0$. Therefore, a buyer of corrupt services expected profit will be

$$P_i = \pi_i(\mathbf{b}) - q_i / \mathbf{y} \quad (1)$$

private agents with $P > 0$, are the only ones that are willing to partake in corruption, we see that with a given \mathbf{b} and a particular incidence of corruption equivalent to the fraction of corrupt bureaucrats \mathbf{y} , an agent with lower $\pi_i(\mathbf{b})$ have a positive P_i given that the agent has enough low moral costs. This explains why corruption is not necessarily an improvement of efficiency (Rose-Ackerman, 1975). The number of private agents having a positive P_i is then proportional to the total demand for corrupt services. The equation for the demand of corrupt acts is then written as follows

$$D = D(\mathbf{b}, \mathbf{y}) \quad (2)$$

The above equation shows that there will be a low demand for corrupt services \mathbf{D} , given that the Bribes \mathbf{b} are high. The incidence of corruption is higher given that the cost of searching and transaction cost is low, leading to more private agents having a positive expected profit P_i with a higher \mathbf{y} , as seen in equation (1). For a given \mathbf{b} , the demand for corruption increases alongside with \mathbf{y} . For simple understanding equation (2) is considered continuous and differentiable. Establishing a long-run relationship between \mathbf{b} and the normalized \mathbf{y} which is the level of demand for corruption from the equation $\mathbf{y} = D(\mathbf{b}, \mathbf{y})$ giving rise to the long-run demand curve $\mathbf{b} = E(\mathbf{y})$. From here we can then determine

$$E' = \frac{db}{dy} = \frac{1-D_y}{D_b} \quad (3)$$

Where, $D_b < 0$ *and* $1 - D_y > 0$ *or* $1 - D_y < 0$

Hence an achievable long-run demand curve sloping upwards, where demand is directly induced by supply.

The next is what a person gains in supplying corrupt acts, termed by the authors the “incentives to supply corrupt acts”. Bureaucrats who act in an honest way receive incentives that are almost the same as to those inducing a worker to put in efforts that are required in a private firm (Shapiro & Stiglitz, 1984). The given number of bureaucrats in this model is normalized to 1. The utility functions of all the bureaucrats are linear in money and all receive the same salary which is w in a period. The outside options value is equal to zero. The wage differential between public and private sectors corrected for the expected waiting time for jobs that are private in the unemployment pool is reflected by w , which is assumed to be strictly positive, which means w does not contain any values that are negative. Also, bureaucrats are assumed to have different costs of supplying corrupt services, that is they are said to be heterogeneous in costs as far as the supply of corrupt services are concern. It is thought to be the moral costs or organizational cost linked to the positions of the bureaucrats. A bureaucrat might choose between a strategy of being corrupt or non-corrupt. There is an assumption that he or she has a horizon that is infinite and discounts future incomes with which is the discount factor. The Expected Value for a rational bureaucrat i , in period t is shown below

$$V_i = w + \max[b - c_i + U_i(t), \beta V_i(t + 1)] \quad (3)$$

The equation above shows, b is the bribe, c_i is the cost incurred by bureaucrat i , for the corrupt service he provides and the expected gain for opting to be corrupt in period t , is, $b - c_i + U_i(t)$. A bureaucrat who chooses not to be corrupt have a certainty of keeping his or her job for the next period which is $\beta V_i(t+1)$. The next equation shows the consequences that are expected of choosing to be corrupt.

$$U_t(t) = (1 - s)\beta V_i(t + 1) + s[y(\beta V_i(t - 1) - B)] + (1 - y)(-b) \quad (4)$$

From (4) above, the probability for being caught in a corrupt act is s , where $0 \leq s \leq 1$,

And $(1 - s)$ given that the corrupt bureaucrat was not caught in the corrupt act, here he can start his next period having the same options as the start period. In a situation where the bureaucrat is caught, it now depends if he was caught by a colleague who is also corrupt or a non-corrupt colleague. In the situation that the non-corrupt colleague reports the corrupt bureaucrat to top-ranking authorities in the organization which this model assumes these authorities, to be honest, and are in a position to sanction the corrupt bureaucrat. The sanction is taking away the bribe b by the top-ranking authorities and the corrupt bureaucrat loses his job or position. Keeping in mind that the utility level that is outside the public sector is equal to zero, the probability of being corrupt $s(1 - y)$ and $(-b + \beta 0)$ is the best option that he gets the next period.

On the other hand, if the corrupt bureaucrat is caught in the corrupt act by a corrupt colleague and he also gives him a bribe for keeping quiet and him also keeping his job. In this case, the bribe is B which is immediately paid. In effect, the next period given the probability sy , he obtains $(-B + \beta V_i)$.

The model shows different ways where B can be obtained from (1)

- 1) Where $B=0$; in this case, the corrupt bureaucrat makes a deal in such, that if you do not report me, I will not report you too when it's your turn.
- 2) $B = \theta(\beta V_i(t + 1))$; the gain of not losing the job is divided between the reporter and the corrupted bureaucrat $0 < \theta < 1$. This can be the outcome due to bargain between the two.
- 3) $B = b$; this is the case where the reporter gets the same bribe as his colleague, faced with this situation the corrupted bureaucrat will choose not to report the colleague, since he will receive b too for also performing the corrupt act.

All the three situations above produce the same result when applied to a model. For formal derivation, the third situation is applicable. The Equation for determining V_i for bureaucrats who opts to be corrupt freely of whether they receive bribes indirectly through other bureaucrats or directly from members that do not belong to the bureaucratic organisation.

Given there is no change over time, it is assumed that $V_i(t) = V_i$ and $U_i(t) = U_i$ for all t . The value of a non-corrupt strategy is then gotten from (3)

$$V^N = 1/(1 - \beta) \quad (5)$$

Which represents the present value of future salaries.

Following a corrupt strategy, the expected present value is

$$V_i^c = \frac{w+b(1-s)-c_i}{1-\beta(1-s(1-y))} \quad (6)$$

From equation 6 above, as far as V_i^c stays positive, the reward of opting for a corrupt strategy is higher the higher the incidence of corruption. That is y becomes higher.

Therefore, for a bureaucrat who considers himself rational will always choose to corrupt when;

$$V_i^c = V^N$$

$$c_i < (1 - s)b - s(1 - y)w/r \quad (7)$$

From the inequality above, you can observe that it is like that from (5) and (6) where been used.

is equivalent to the amount of money gotten if corrupt, where the first and second term represents the expected retain value of the bribe and the expected loss of future incomes respectively. To be corrupt $(1 - s)b$ should be larger than c_i , meaning bureaucrats whose expected money gain from corruption are higher than their cost c_i will prefer to be corrupt, which implies V_i^c for corrupt bureaucrats that are self-selected is strictly positive.

According to the model, each bureaucrat is link with a cost level c_i and they assumed that the cost associated to the provision of corrupt acts are distributed across the interval $[c, \bar{c}]$ with cumulative function $F(\bullet)$ such that $F(c) = 0$ and $F(\bar{c}) = 1$.

And $F((1 - s)b - s(1 - y)w/r)$ the proportion of bureaucrats that choose to corrupt given the values y , b , w , s , and r . in effect, the number of corrupt bureaucrats will be greater given that

- the higher the anticipated fraction of corrupt bureaucrats y ,
- the larger the bribes b ,
- the larger discount rate r ,
- the smaller the probability of detecting s

Also, can be translated in such that the bureaucratic regimes stay in power in the next period. If the probability of a regime to change is high, r will be higher and so will the incidence of corruption for a given bribe b and the anticipated value of y .

Therefore, number bureaucrats who chose to be corrupt for a given level of y can be shown by the function $F((1 - s)b - s(1 - y)w/r)$.

Hence, the level of positive equilibrium of y and b are the one satisfying

$$F((1 - s)b - s(1 - y)w/r) = y \text{ given } 0 \leq y \leq 1 \quad (8)$$

$$b = E(y) \quad (9)$$

Many articles have suggested that corruption is one of the main causes of illegal activities in the forest sector of Cameroon such as the likes of (Alemagi & Kozak, 2010; P. O. Cerutti, Tacconi, Lescuyer, & Nasi, 2013). They discuss this in their articles and they all concluded that corruption is actually an issue that has been affecting the Cameroon economy. This malpractice always involves top-ranking officials that are very influential and in top positions in this sector. They engage in this for their private gains and by doing so, the government is losing a huge amount of money as a result of corruption thereby increasing the illegalities that exist in the forest sector.

Since it has already been considered that corruption exists in this sector, my choice for this model is to actually show from an economist point of view why some stakeholders in the forests sector and also the officials involve in corruption. The incentives, they stand to gain or lose

when they choose to be involved in corrupt activities. By using this model in my case study it indicates that most of these officials stand to gain a lot when they involve in corruption since the laws put in place favors them and even the sanctions and policies that are available to control corruption are in one way or the other favors these officials especially those at the top.

Before describing how this model is useful will discuss the various actors involved in the Cameroon forest sector and how each and every one of them is involved in this corruption process.

Actors

In order to really utilize this model with clarity, I deemed it necessary to enumerate all the various stakeholders or actors that are involved in the Cameroon forest sector.

- ✓ The forest officials from the ministry of forestry, whose rule is to issue permits or licenses and concessions authorizing other forest operators to be able to exploit the forest. These officials include both the high ranked and the lower-ranking officials. The higher-ranking officials influence forest laws to fit their personal interests. For example, (P. O. Cerutti et al., 2013) they use their power in the government to influence some forest laws such as the law that legally erase small scale loggers from obtaining legal documents to carry out legal forest logging. Laws like this keep the small-scale loggers (chainsaw loggers) in the informal sector thereby creating room for the extraction of bribes and hence increasing incentives from corrupt acts. And the lower-ranking officials especially the forest inspectors are there to collect the bribes from small scale loggers which is in turn channeled to the higher-ranked officials for sharing. All these practices increase incentives for corrupt acts and hence a higher incidence of corruption.
- ✓ Other stakeholders such as foreign logging companies and large domestic companies are involved in logging in the Cameroon forest. Foreign logging companies have the financial power to bribe and support corrupt politicians in government who are lawmakers. In effect, laws are altered to favor these companies such as the law that legally removed small scale loggers from getting concessions in favor of large domestic and international companies. As for the large domestic companies, they receive preferential treatment top officials in power since they are mostly owned by some of

them or their relatives. Here there is a lack of transparency triggered by poor governance.

- ✓ Small scale loggers, the permit of these sort of loggers were suspended for some years and this made them operate illegally and after these permits were reinstated, they it was still difficult for these small-scale loggers to get their permits. This is because the ministry (MINFOF) stop the issuing of these permits by regional delegates and it was only issued at the country's political capital directly from the office of the minister of forestry. This made the process of obtaining these permits more difficult for small scale loggers. Because of these, they continue operating illegally in the informal sector thereby creating more room for corrupt activities.
- ✓ Other actors are custom officers and police who mostly are involved in the transportation stage from the extraction site until when it arrives at the market. This group of actors grants passage to illegal loggers to be able to get access to the national and international market with illegally logged words. They allow access because of the bribes that they receive from these illegal loggers.

7.2.3 Relating the Model to My Case Study.

When it comes to the demand for corrupt services in the forest sector of Cameroon given the nature of the Cameroon forest laws noted for having some flaws and the abuse of power by bureaucrats, some private agents (big logging companies) and foreign logging companies with affluence and connection will easily fine a corrupt bureaucrat (top officials in the forest ministry). This mostly happens when these companies do not follow legal and valid documentation procedures in obtaining their permits (concessions).

With many flaws in the system it is very easy for private agents to find bureaucrats to be able to bribe. This means the moral and real cost q_i of the private agent, i is lower because there is a higher incidence of corruption in this sector (forest). This means the moral and transactional cost is most of the times lower thereby making the private agent (briber) such as the big logging companies, and foreign loggers to have a higher P_i . This means many bribers are having a positive P_i since there is very low moral cost in the system due to the lack of sanction mechanisms put in place. Also, most of those involved in this illegal means of getting permits are having backing from the top-ranking officials in the forest sector and even other officers

such as military personnel in Cameroon. With most of the logging companies in Cameroon having a positive P_i , it indicates that there is also a higher y (proportion of corrupt bureaucrats), having this means there is a high supply of services that are corrupt which automatically induces a high demand.

Also, when it comes to small scales loggers who are most of the time operating illegally especially during the extraction face on small scales, bribing forestry inspectors on the field is common. This practice is becoming normal because most of these field officers receive low salaries and their hope of making money is by receiving bribes from these small-scale loggers who operate in the informal sector. This practice has really reduced the moral cost for the small-scale loggers though they might not be having excess profits $\pi_i(b)$, still, they will be having a positive expected profit P_i (**Rose-Ackerman, 1975**).

When it comes to transportation of the logged timber and other forest products, police officers and customs officers always expect bribe from private agents (small scale loggers, large scale loggers, and big foreign logging companies). The point here is that most of those who bribe has advantages of a low moral cost and even transactional cost. This is because of the system that exists in this sector there by giving forest operators a high expected profit and as a result high incentive as far as engaging in illegal activities are concerned.

Another dimension is also the supply of illegal services. Do the incentives that come from the supply of illegal services by forest officials high enough? The answer is probably yes, this is encouraged by the forest laws put in place and the leaders in power backing the officials supplying corrupt services thereby creating a high incidence of corruption.

As far as supplying corrupt services are concerned in the forest sector of Cameroon, the moral costs of the bureaucrats differ from one to another. This is because those who are in the higher positions (ministers and regional delegates) are having very low moral costs since they have the power to sanction or not to sanction and when they are the ones involved in the corrupt acts, they can't sanction themselves. Whereas others are involved in the supply of corrupt services (Such as forest inspectors and other subordinates working in the forest ministry) might have a slightly high moral cost since they run the risk of being sanction by their superiors especially when they do not follow the instructions from their superiors who most of the times they act under their instructions as far as the supply of corrupt services are concern.

But non the less, the moral cost of the supply of corrupt services by public officials is generally low because of the system and laws that are put in place. For example, there is a corruption law in Cameroon that, if you are caught in a corrupt act, both the briber and the receiver of the bribe will undergo the same sanction (Formeteu, 2001). Therefore, even if a briber is forced to bribe by the corrupt bureaucrat (forest official) he will never report the corrupt bureaucrat since they will both be sanctioned. With laws like this, it only helps to reduce the moral cost of the public officials in the forest sector thereby increasing the incidence of corruption.

Furthermore, the regular changing of forest laws and centralizing power in the forest ministry. For example, obtaining of permits from the minister's officers in the Cameroons political capital (Yaounde) makes the process of obtaining the permits cumbersome, therefore some large scale loggers and a majority of small scale loggers prefer to solicit the corrupt services of the forest officials and by so doing it increases the number of corrupt officials willing to be bribed. Centralization of power has therefore increased the incidence of corruption since both the corruptor and corrupter might not face sanctions because it is the only way the private agent (small and large scale loggers) can get to carrying out his logging activities thereby patronizing the corrupt forest officials in both the lower and upper ranks. These laws only go to reduce the bureaucrat's c_i and increasing the expected money gained from corruption. This can also be known as corruption caused by poor governance.

In addition, when it comes to being caught in a corrupt act by a colleague, a colleague chooses to bribe his way and the bribe is equivalent to \mathbf{B} in the model. The most practical case in paying a corrupt colleague is when $\mathbf{B}=\mathbf{0}$ and when $\mathbf{B}=\mathbf{b}$ as shown in the model. It is very practical in the Cameroons forestry sector that when a corrupt colleague catches another corrupt colleague in a corrupt act, such as receiving bribes for logs that were illegally cut, issuing permits that do not follow the legal requirements, they choose not to report each other but instead keep each other's secret. Therefore, the payment here for a corrupt colleague is $\mathbf{B}=\mathbf{0}$, and in some cases, the reporter will receive the same bribes as his colleague. This second method of payment is very common especially between field inspectors who are fun of taking bribes from some large and small scale loggers, as related in the model it reflects the situation where $\mathbf{B}=\mathbf{b}$ which explains why there are increasingly corrupt officials in the Cameroon forest sector. Their cost is being minimized because they manage to escape sanctions from higher authorities.

With the bad system of corruption control in Cameroon particularly in the forest, sector have increased the proportion of corrupt bureaucrats equivalent to $F((1 - s)b - s(1 - y)w/r)$ as shown in the model.

The CPI for 2019 ranked Cameroon 153/180 (Transparency International, 2019,) which means there corruption level is high, having such corruption in the country has infiltrated the forest sector. Also, there are a higher fraction of corrupt bureaucrats in this sector because of the low salaries they receive and increasing levels of bribes. Having higher proportions of the corrupt bureaucrat, the lower is the probability of detecting a corrupt official. The constant change of the ministers and other top officials goes to increase the discount rate (r) thereby increasing the incidence of corruption.

Given the fact that corruption is the main problem in the forest sector, the model shows strategies that encourage officials (bureaucrats) as far as incentives are a concern and with these strategies applied in the Cameroon case, it is easily seen why most top-ranking and other public officials will choose to be involved in corrupt activities in the forest sector of Cameroon, since the inconsistent forest policies, weak sanctions to corrupt acts. With all these, it increases the incentives of corruption to both the private agent and the corrupt bureaucrat which goes to explain why there are high levels of corruption in almost all the sectors of Cameroon with forest inclusive caused by high incentives from corrupt acts because of poor corruption control mechanisms thereby increasing the incidence of corruption.

The downside of this model in my studies is the assumption that the higher authorities are honest and non-corrupt which is not quite practical in my case study. Most of the time the subordinates act on the instruction from their superiors and if they are reported they receive no sanctions. Instead, they might be promoted because of the roles they play in the corruption process. It will be nice if the model can be adjusted in such a way that even the higher authorities which are assumed, to be honest, should be sanction if they are caught in illegal activities such as covering up for lower officials who engage in corruption activities by receiving huge bribes either directly or indirectly from corrupt acts. This aspect can be related to the perspective of the “principal-agent theory”, in such both the principal and the agent has costs to bear, that is prevention and inspection cost for the principal and the agent concealment and diversion cost with the two incurring failure costs which its termed their “residual loss”(Groenendijk, 1997)

8 Relationship Between Corruption and Illegalities in the Forest Sector.

Forest Governance has never been an easy task and it is a situation that many countries around the world that are having forest challenges especially in the tropical rainforest where corruption and illegalities are prevailing. Corruption has been one of the big links that are tied to forest illegalities and have been considered by many to be the main cause for this practice which is not favorable for forest conservation and its sustainability. This act is mostly the non-compliance of forest laws aided by public officials through bribery which has led to the loss of forest resources and even problems with forest management. Corruption in the forest sector needs to be checked since corruption and bribery are the gateways to illegalities as far as forest management is concerned. A huge deal of illegalities in the tropical rainforests are mostly contributed by corruption.

The discourse of illegalities in the forest sector has most of the time been seen as an issue that the poor are mostly the ones involved rather than the rich who often are the facilitators of the process due to their powers and connections, that can influence policymakers to pass some laws that will favor them and disfavor the less privilege. Taking from (Richards, Wells, Del Gatto, Contreras-Hermosilla, & Pommier, 2003), “The poor are also accused of illegal logging partly because it is difficult and more dangerous for forest officers or the police to accuse armed and powerful actors. Blaming the poor can provide a convenient smokescreen for the latter”. The “big barons” are the main actors that pave the way for corruption which is the build-up of illegalities in forest management. In most literature, corruption can be either political or bureaucratic in forest management. According to (Wilson & Damania, 2005) political corruption is termed “grand” and bureaucratic corruption known as “petty”. “The former is defined as an attempt to influence the setting of policy by making payments to politicians, while the latter is the attempt to avoid the consequences of a given policy”.

To be able to draw a link that exists between corruption and illegalities in the forest sector it is worth looking critically into the “grand” and “petty” corruption since the first type of corruptions only leads to the unfavorable policies made by politicians just because of the bribes they receive that might not necessarily lead to forest conservation and the other (petty) enables small scales actors to be able to evade sanctions, improper follow up of law enforcement about the management of the forest, such as going against forest concessions which can lead overutilization and exploitation of resources in the forest and sometimes misappropriation of

funds allocated for conservation and sustainability of the forest by diverting such funds into personal pockets. Acts like this can cause forest degradation.

Also, many writes ups exist in the literature, illegal activities are common malpractices that exist in forest management but corruption especially in the developing countries is the catalyst that stimulates these illegal acts. (Callister, 1999), suggested that “corrupt” and “illegal” on forestry should be regarded as similar problems, in the same regard, (Amacher, 2006)also stated that as far “corruption” and “illegal logging” are involved it is obvious that they are tangled together.

For the controlling of unsustainable forest practice such as over-exploitation through harvesting, it suffices that there are laid down legal roles for standard logging which is legal. And corruption may arise when it comes to the level where the roles for standard legal logging are enforced. An example is forest controllers favors some persons giving preferential treatments by allowing them to go against their concessions, issuing permits even though they do not meet the standard requirements, and evading sanctions, in return they receive bribes as their motivation.

(Soreide, 2007) corruption may happen at different stages such as designing concessions, awarding them, and the stage of operation and logging. With corruption at all these stages, it creates room for illegal forest activities such as illegal logging.

The works of (Robbins, 2000) indicate his viewpoint of corruption and the illegalities in the forest where he centered on rural communities that are poor, and they rely solely on the forest activities for their income which is necessary for their livelihood. He came out with a model where the formal institutions state roles and regulate on the way to access and extract forest resources, while the informal institutions, on the other hand, disrupts these regulations thereby allowing those who use the resources that are rich with power, influence, and connection in the society to gain access to into the forest resources and on the other hand deprive those with less affluence access to these resources because of the bribes and favors they receive from the big barons. With such practices of corruption, there will be bound to be higher levels of illegal logging and other related crimes in the forest sector.

Below is a list of corrupt practices outlined by (Callister, 1999) that shows the various ways the grand and petty corruption operates in the forest sector and other natural resources.

Grand Corruption

Provision of support to political parties by companies, and or giving bribes to politicians, a top member of the government, and military personnel to;

- ❖ Obtain concessions for the extraction of timber
- ❖ Secure the extension for existing concessions
- ❖ Win the approval for the processing of timber
- ❖ Avoid sanctions from crimes
- ❖ Escape the payments of fines and other fees
- ❖ Work out favorable and investment agreements such as tax holidays and other incentives for investments

Government officials and top-ranking politicians and powerful military personnel use their influence to effectuate the same outcomes as those above.

Also, Powerful companies engaging in the bribing of local communities to prompt them to accept granting them their rights to harvest.

Petty Corruption

Companies passing through Low ranking government officials, local government officials, and military personnel by bribing them to;

- ❖ Contradict the declarations of the volumes and species that are harvested
- ❖ Not reporting prohibited species and diameter
- ❖ Falsify the documentation of export and ignoring irregularities in documents

- ❖ Abstain from reporting and prosecution for non-compliance to regulations in forest management.
- ❖ Allowing the illegal movement of timber
- ❖ Disregarding logging in areas that are protected and going against concession boundaries.
- ❖ Granting access to timber processing without fundamental approval
- ❖ Neglecting the violation of timber processing regulations such as controlling of pollution.

The above-mentioned practices lead to distortion of law enforcement in the forest management either directly or indirectly, indirectly by laying down forest laws in disfavor of the poor, in which they will have no other option left than to engage in the illegal logging and other forest-related crimes.

It has been a difficult task, drawn from most of the literature to distinguish between corruption and illegalities in forest management and other natural resource management of which most writers come to conclusions that corruption and illegalities are the same issues (Amacher, 2006; Callister, 1999).

9 Discussions: Enforcements and Their Weaknesses.

Before I continue with the enforcement in this sector, will like to go back to the 1994 forests law. One of the aspects in this law was the division of forest Permanent Forest Domain (PFD) and the Non-Permanent Forest Domain (NPFDD)

The PFD is classified into state forests and the council forest. The PFD must cover at least 30% of Cameroon's national territory. The state forest is considered the private property of the government, and its management is sole under state supervision and control. Also, for the council forest, it is considered the council property, and control and management are under the strict supervision of the local council concerned. And any actions in the state and council forests must follow the management plans that are put in place by the respective structures. All

the protected areas such as national parks and reserves are in this domain. (Ministry of Forestry, 1994, January 20)

Concerning the NPF, it is made up of community forest and forest that is owned by private individuals. But, when discussing NPF, it is the community forest that is mostly referred to since it is difficult for private individuals in Cameroon to own forest lands in practice since most of the forest in Cameroon is under the state control. The community forest is based on a 25-year rotation plan and covers a maximum area of 5000 ha. The purpose of putting in place this domain was to involve local communities in forest management so they can also benefit from forest activities. The monitoring and control of this sector are not fully in the hands of the communities since logging activities here are still being controlled by MINFOR. (Cerutti & Tacconi, 2008; Ministry of Forestry, 1994, January 20)

The PFD is the area that most of the commercial activities such as logging for exportation are involved and even for domestic use which makes up the formal sector while the community and some small-scale logging by individuals make up the informal sector. Most of the enforcements below will be referring but to the PFD which is the formal sector of forestry in Cameroon.

9.1 Enforcements in the Forestry Sector.

Illegal forest activities have been a threat to forest activities in the world at large (Brack, 2003). The Cameroon government authorities have in the years' sort for various ways to cope with the increase in forest illegalities and corruption. The efforts put in place were to promote sustainability and above all to reduce poverty in the country. Reducing the incentives gotten from illegal forest practices and corruption, the government of Cameroon seeks the help of international bodies such as the European Union (EU), Forest Law Enforcement Governance and Trade (FLEGT). Cameroon is the first central African country to sign a Voluntary Partnership Agreement (VPA) with the (EU) (FLEGT). The goal here was to ameliorate forest governance by the government of Cameroon. This is because poor forest governance and inefficiency in forest law enforcement only help to increase the incentives for non-compliance such as corruption and illegal logging. (Carodenuto & Cerutti, 2014)

FLEGT is a structure that was created by the EU to put in place policy measures whose main goal was to promote “sustainable” forestry, particularly in less developed countries to curtail

illegal trade of timber. This perception was originally established in the 2003 FLEGT action plan (Enforcement, 2003). This plan had two important aspects involved;

- Promoting “Sustainable” forest governance and the assurance of legality of exported timber by consulting with producer countries via VPA to set up domestic institutions to meet up the objectives of the agreement.
- Putting in place laws in the EU Timber Regulation (EUTR) that makes it a transgression for European firms to import illegally harvested timber in the European market irrespective of the source, thereby compelling them to exhibit “due diligence” (Overdevest & Zeitlin, 2018)

The structure entails the extensive participation of stakeholders of domestic civil society in designing plans and measures for progress assessment through advance monitoring and reviewing of local implementation both at the national level and at the level of the EU. The VPAs role is to uphold and promote sustainable forest governance and stop illegal logging. (Overdevest & Zeitlin, 2014, 2015), also (Carodenuto & Cerutti, 2014) summarised the objectives of the VPA as; “to eliminate illegal players, reduction in corruption and poverty, promotion of business opportunities and valorization of investments”

Partnership countries must have a Legality Assurances System (LAS) for all woods harvested, traded, and sold in the domestic markets which is one of the conditions a producer country must have to become a partner. The function of LAS is to check if all timber products exported to the EU adheres to legal norms. Cameroon is a country known for having very high levels of illegal logging (Lawson & Macfaul, 2010; Oy, 2004). According to 2014 reports from European Forestry Institutes (EFI) shows that Cameroon is one of the countries in Africa that export the largest amount of tropical hardwood to the EU. (Carodenuto & Cerutti, 2014). The country has an operative informal and formal system with many operators engaging in domestic harvesting of timber. These operators range from large national companies in possession of multiple concessions to small chainsaw enterprises that operate in a disorderly manner. (P. O. Cerutti & Lescuyer, 2011)

Cameroon LAS was approved in 2011 according to the VPA, thereby making her capable of issuing a FLEGT license both for forest products (timber) distributed in Cameroon and those that are exported to the EU.

The impacts of FLEGT in Cameroon led to increasing incentives especially in industrial forest concessions where the forest producers export timber to the foreign market. Also, there was an improvement in the equal distribution of forest resources amongst the national and international companies (Carodenuto & Cerutti, 2014).

Moreso, another initiative by the government of Cameroon is the joining of the Project REDD+ (Reducing Emissions from Deforestation and Forest Degradation). REDD+ is a mechanism that helps less developed countries like Cameroon to better manage forests by lessening climate change through the reduction of emissions coming from forest degradation deforestation and forest degradation, as such it bolster the conservation and sustainability in forest management and the enhancement of carbon stocks in the forests. The REDD+ provides financial assistance to Cameroon state authorities to execute and meet up with the objectives of the REDD+ initiative (UNFCCC, 2008.)

Another aspect of improved forest governance was the sorting of international assistance for the detection and suppression of illegal forest activities. For example, the government of Cameroon seeks the Services of an NGO from the United Kingdom called Global witness to become an independent observer thereby strengthening the enforcement of forest laws. This program was mostly funded by the World Bank, DFID, and EU. The purpose was to help the Cameroon government to set up the monitoring of forest activities and improve credibility in the Cameroons timber industry. When the contract of global witness ended, the job was taken over by Resource Extractive Monitoring (REM) and the detection and monitoring of forest illegalities was continued under the control of REM (Downs, 2013).

More so, the introduction of satellite images over the forested lands by Global forest watch is an initiative put in place by World Resource Institute (WRI), in which the main objective was to be able to detect illegal forest activities. With these measures put in place, it has helped in the reduction of illegal activities that are carried out by commercial operators since illegalities are no more allowed. (P. Cerutti & Assembe, 2005) With the presents of observers, it becomes difficult for forest commercial operators to give bribes to corrupt officials.

“Before the introduction of the forest observers, forest governance was more concentrated to the small scale operators of which they still expect bribes since higher-level state officials use law enforcements to cut small scale loggers out of mainstream legal forest sector officially because they do not comply with the but in reality, such a legal framework gives forest officials a means to extract bribes.)” (P. O. Cerutti, Tacconi, Lescuyer, & Nasi, 2013)

9.2 Weaknesses in the Enforcements.

Despite the measures discussed above concerning the Cameroon amelioration of forest governance which reduces illegal logging, corruption, forest degradation, and deforestation. Despite all the above measures some major setbacks have hindered the full implementation and therefore affected the expected results from the outcome of the said measures.

The signing of the FFLEGT VPA with the EU entails large costs for the implementation of the FLEGT VPA especially to small forest managers who operate mostly in the domestic market. This group of producers may be sent out of the market and consequently out of business if these implementations are strictly carried out without subsidies from the government and in turn, may represent a disincentive to forest actors such as community and small scale producers (Carodenuto & Cerutti, 2014)

The LAS which is a system put to check the legality of timber products in both domestic and the foreign market turns to focus more on the timber that is destined for exportation, as such the legality of domestic timber at times is not certain thereby not meeting with the objectives of the FLEGT VPA (Lawson & Macfaul, 2010).

There is less information too about the LAS coming from the VPA, that is a proportion of domestic and national market operators do not have any idea about LAS as some operators confuse the FLEGT with other forest programs thereby having no clue about the FLEGT VPA initiative and its implementation (Carlsen, Hansen, & Lund, 2012)

Corruption may increase as a result of VPA implementation since higher values may be asked by forest authorities before getting a FLEGT license because of a lack of information and also the exploitation of low enforcement mandates for personal gains (P. O. Cerutti et al., 2013).

As concerns REDD+, the same as the FLEGT VPA there is a lack of information by some stakeholders cause by the absence of transparency and even lack of communication between the two ministries that are involved in this program. MINEP(Ministry of the Environment and Nature protection) works alongside MINFOF in executing the projects in REED+, of which MINEP's role is to negotiate with NGOs and other international bodies while MINFOF plays the part in the implementation of the projects(Freudenthal, Nnah, & Kenrick, 2011). With a lack of communication between these two ministries then the outcome of the projects is affected.

More so the benefits that are gotten from the REDD+ and also decision making excludes the indigenous communities which are against the objectives stated by the International donors (Taylor & Griffiths, 2007). Also, with huge financial contributions from donors like the world bank in favor of REDD+ projects in Cameroon, and no rules and regulations or laws created specifically for REED+. This means that there are no international regulations stated for the governing of REDD+(Somorin, Visseren-Hamakers, Arts, Sonwa, & Tiani, 2014), this might lead to corrupt practices leading to misappropriation of project funds, by that, the goals of the REDD+are not attained.

Couple with the introduction of independent observers, there are setbacks since the governments (MINFOF) refuses to accept the reports from these independent bodies. For example, reports from missions carried out by REM independently without the knowledge of the MINFOF showing detection of illegal activities were not fully accepted (REM, 2010). This is because most of the Illegal activities involve top government officials (CIDT, 2018, February 10), such actions only reduce the effectiveness of forest monitoring by the observers

Besides, the intensification of the detection of illegal forest activities in the Cameroonian forest sector by the independent observers, it had let to a shift of illegal activities from the PFD by influential exploiters to NPF which is allocated only for communities and private individuals (P. Cerutti & Assembe, 2005). This is so because the observers focus mainly on the PFD which embodies most of the protected areas such as national parks, with the detection level raised by the observers living the community forest vulnerable to illegal logging and other forest malpractices, therefore, failing to curtail illegal logging and other forest-related illegalities in the entire Cameroon forest sector.

According to my discussions, it can be deduced that poor governance is the main issue faced in the Cameroon forest sector, according to (Pahl-Wostl, 2009), poor governance is the main origin of problems faced in resource management. This can be as a result of corruption within the system. Corruption in the forest sector can create avenues and behaviors that might escalate in the entire society (Sundström, 2016), which is not healthy for economic growth. The risk of genuine trade flows disruption through money laundering caused by corrupt acts such as illegal logging, such practices can be transferred to other sectors in the society making it more difficult to govern (Kishor & Damania, 2007; Sundström, 2016). Practices like this make the country lost credibility to potential investors, increase the level of poverty, and make the government lose money that would have been used for nation-building and development.

10 Conclusion and Recommendation.

This thesis attempts to find out why there is increasing corruption in the forest sector of Cameroon and the possible drivers or forces behind the corruption that have led to illegal forest activities. It focuses more on the incentive mechanisms of the (Andvig & Moene, 1990) corruption model. As mentioned already above, there are drivers that have contributed to the increasing rate of corruption in the Cameroon forest sector. These drivers or factors that have greatly increased corruption leading to illegalities are; poor law enforcement, lack of transparency, inefficient laws put in place, lack of severe sanctions to transgressors, and generally poor governance.

The above-mentioned factors have created high incentives to the corrupt actors such as forest officials since their moral and transactional costs are probably lower due to poor governance. With increasing incentives coming from corrupt acts, it will increase the number of state officials, forests officials, and other state operators to engage in illegal logging thereby increasing the incidence of corruption in the forest sector and consequently leading to forest illegalities. That is, high incentives caused by poor governance in the Cameroon forest sector have probably been the driving force for increasing corruption in the forest sector leading to illegal logging and related forest illegalities.

Projects such as FLEGT and REDD+ whose objectives are to improve sustainability, legality in forest products, and the welfare of indigenous communities. It will be important for the government to include them in decision making instead of side-lining them in the decision

process. This will improve transparency and the locals will be more informed about the projects in their communities and the layout of these projects. Transparency will dismiss the avenues for corruption and other related illegalities thereby improving the credibility in governance.

Also, having forest observers to detect illegalities is good, it will be better if appropriate mechanisms in the legal system are put in place to sanction defaulters irrespective of your societal status, by doing so many actors in the forest will be scared to be sanctioned including the top-ranking officials. This will reduce the incidence of corruption in the system and in effect combats illegal forest activities.

The legal forest laws should be reviewed and include all actors such as the small-scale loggers who have been side-lined and have been operating in the informal sector for years. Making them legally obtain permits will also greatly solve the problems of illegal logging and corruption in the Cameroon forest sector.

Independent forest observers should also cover the NPFDF not only concentrating on the PFD for the detection of illegal activities. Doing so will stop the big barons (influential persons) from migrating to the NPFDF such as the community forest, therefore covering the entire forest both PFD and NPFDF will significantly reduce illegalities since it will be a difficult task to shift from one domain to another.

The forestry authorities should put in place a system for the publication of forest reports that can be accessed by all the forest stakeholders so that all actors should be well informed of all the updates in the forest and any reforms made in the sector. This is to make sure the actors have adequate information concerning the sector which is also the improvement of transparency in the sector.

With the aforementioned points, if taken into consideration will go a long way to improve governance in the forest sector which is considered to be one of the issues for corruption and illegal activities in the forest sector.

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