

# Analysis of Non-Fiscal Measures in the Forestry Sector in Stimulating Growth and Jobs Creation: The Ghana Experience

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## Abstract

The accelerated development of forestry sector over the past two decades has stimulated an increasing number of researchers to investigate the impact of forestry resources on economic growth amidst forest quality and quantity deteriorating factors, including illegalities. This study aims to identify and examine non-fiscal measures implemented in stimulating growth and job in the sector. Employing mixed research approach, the study provides inferences based on detailed performance description of core centers of the sector. The study revealed that, the government and regulatory agencies need to acknowledge the existence and importance of SMEs and making them part of economic analysis to project growth, innovation, job creation to social inclusion, and rural development. Also, trade associations are handicapped logistically and this derails their ability to support their members both financially and technically. Similarly, in adoption of strategies to improve short term development of wildlife resources, tourism attraction sites within wildlife protected areas could be created, which will control encroachments and add to revenue streams of the sector and would contribute to economic growth as a whole.

**Keywords:** Growth, Gross domestic product, Jobs, Fiscal, Forest cover, Ecotourism, Policy measures, Foreign direct investments

## 1. Introduction

The practice of forestry in Ghana encompasses the formal and informal sectors. Their range of activities comprises logging and forest and wildlife floor operations including plantation development, timber transportation, manufacturing and processing, wildlife production and export, promotion of Non-Forest Timber Products (NTFPs), distribution and sales, in addition to value-addition (Forestry master plan, 2016). Publicly, total land area of the country is approximately 23.9 million hectares, with 266 gazetted forest reserves of which 204 are in the High Forest Zone and 62 in the Savanna Zone. There are 17 wildlife protected areas that include 7 National Parks, 6 Resource Reserves, 3 Wildlife Sanctuaries, and 1 Strict Nature Reserve. Affum-Baffoe asserts that, there are estimated 400 timber milling companies of which a significant number are classified as small-medium scale forest enterprises and about 20-30% as large scale. These companies are distributed largely in the High Forest Zone (HFZ) of Ghana because of the proximity to timber resources. Large-scale companies predominantly form the formal sector with their operations inherently regulated and posited on the award of Timber Utilization Contracts (TUCs) to acquire legal timber (Affum-Baffoe, 2009). Their operations are mostly export-driven even though they also provide legal timber for the domestic market. Conversely, the operations of the Small-Medium Scale Enterprises (SMEs) who provide primarily for the domestic market are characterized by both legal and illegal timber with the availability of timber being the important determinant of business function.

In between these extremes are individual contractors (loggers) who procure TUCs and provide legal timber to interested parties. Illegal logging was estimated to provide over 80% of timber demand in the domestic market, occupying a market space that is important for the local economy yet detrimental to forest growth and sustainability (Albertha, 2015). In a report published by EU FLEGT Facility, the levels of illegality are recorded to have dropped

following more control and scrutiny under the FLEGT-VPA. At the posterior end of the timber value chain are distributors (export and domestic), value-addition and crafting, and end-users (consumers). Timber markets serve as distribution pathways for the domestic market to destination points such as real estate and construction, and carpentry and craft shops.

Timber trade associations remain a pivotal component of the forest sector, serving as institutional gateways for operators in a myriad of business profiles in the timber value chain. Through these trade associations, operators can deliberate on many issues related to their businesses including fighting for better working conditions and institutionalization of policies that are beneficial to business growth. The forest estate has been impacted by various pressures including population and economic growth, both of which fuel high domestic wood consumption and high demand for timber for the export market. This situation has resulted in high rates of deforestation and forest degradation principally driven by agricultural expansion, wildfires, logging and fuel wood harvesting, mining and infrastructural development. In response, a 25-year plantation strategy has been launched to establish and maintain 25,000 hectares of degraded land annually, by both public (10,000 hectares) and private sectors (15,000 hectares), Ghana Forest Plantation Strategy (2016-2040).

The consequences of rapid depletion of tropical forest resources are quite enormous: global warming, soil erosion, endangered biodiversity and shortage of timber trees are but some of the many problems confronting Ghana (Affum-Baffoe K. 2009). Non-timber forest products such as rattan and bamboo have a potential role in solving some of these environmental and developmental concerns. Rattan, sustainably developed, can be a supplement for timber revenues and have potential to alleviate poverty among marginalised groups and serve as a source of income for rural people (FC, 2021). According to report published by the Ministry of Lands and Natural Resources, (2021) Bamboo and rattan trees have been identified as important commodities in the country. The processing of this – from raw material to finishing employs thousands of people across the country. Locally, seven indigenous bamboo species (*bambusa multiplex*, *bambusa vulgaris*, *bambusa arundinacea*, *bambusa pervariabilis*, *bambusa vulgaris var vitata*, *oxythenanthera abyssinica* and *dendrocalamus strictus*) have been identified and underutilization. Rattans are climbing palms exploited for their flexible stems that form the basis of a significant market for cane and cane products. The thriving international and domestic trade in rattan and rattan products has led to substantial over exploitation of the wild rattan resources. This exploitation, coupled with the loss of forest cover through logging and subsequent agricultural activities, threatening the long-term survival of the rattan industry, especially in Ghana. There are over six hundred species belonging to thirteen genera of rattan which mainly occurs in Southeast Asia and the Pacific of which only three are found in Ghana. These includes; *eremospatha* spp, *locosperma* spp and *calamus* spp. These three are mostly found in the high forest zone of Ghana but are highly destructed due to indoctrinated felling of trees (MLNR, 2021).

Ghana is endowed with a rich diversity of flora and fauna on which to build the wildlife resources, however rates of decline are very high threatening the viability of wildlife resources options and calling for proper management (Affum-Baffoe K., 2009). There is a

comprehensive legal and policy framework for the wildlife resources with some gaps that need to be filled to strengthen the enabling environment for the wildlife to thrive, EcoEcon (2014). The current key wildlife economy activities in Ghana include ecotourism, fisheries, non-timber forest products, carbon finance, wildlife trade among others. There is room to strengthen these existing activities to improve their contribution to the national economy while also exploring other activities such as wildlife ranching. The wildlife resources of the Forestry sector also have an enormous potential to change the fortunes of the nation as a whole especially in terms of socio-economic development. The resources contribute towards global commitments such as the United Nations Sustainable Development Goals (SDGs) and some international conventions and treaties relevant to wildlife conservation of which Ghana is a signatory. Examples of such treaties and conventions include the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Biological Diversity (CBD), the Convention on Wetlands and the Convention on the Conservation of Migratory Species (CMS). As a critically important resource, wildlife meets the food and other livelihood requirements of human communities worldwide. Bushmeat (the meat of wild animals) is an important source of protein especially for rural communities throughout the country. Over the years, increasing numbers of people have become involved in the wildlife trade in Ghana as hunters, traders and exporters, and a number of Ghanaian faunal species face extinction as a result while this trade could contribute substantially to household incomes in both rural and urban communities, as well as the national economy, (Lebedys 2004).

## **2. Methodology**

In this paper, the study employed mixed research approach where both quantitative and qualitative research techniques were utilized. Descriptive statistics were used to describe the features and patterns of change of the data. It provides summaries on the behaviour of the data, where it was easy and more visible to tell whether performance in one state increases or not. The study also adopted the case study approach to describe and analyze performance changes within the forestry sector occurring in relation to adoption of strategic interventions. The data used for the analysis were obtained from secondary sources, spanning from 2006 to 2020. Microsoft excel was used for the data analysis.

## **3. Growth Trends of the Forest Sector in the Last Decade**

### *3.1 Growth of GDP*

Ghana Statistical Service emphasized that, the forest sector grew by 10% in 2010 and declined badly in 2011 by 14.1%. The highest growth rate was recorded in 2012 (6.8%) and the lowest in 2018 (2.4%). Between 2016 and 2018, appreciated growth has been recorded whilst 2019 recorded a negative growth rate (-1.7%). In 2020, there was a sharp decline in the sector's performance, thus -9.2% (GSS, 2020). This could significantly stem from the effect of the COVID-19 global pandemic that had huge economic ramifications on the forest sector in Ghana particularly because of lockdown and business policies in both importing and exporting countries in the peak period of the pandemic. Data for 2021 unavailable to determine the recovery pattern and confirm with absolute certainty that, this decline is indeed

attributable to COVID-19 but it is not far-fetched considering the immense negative impact on the Ghanaian economy.

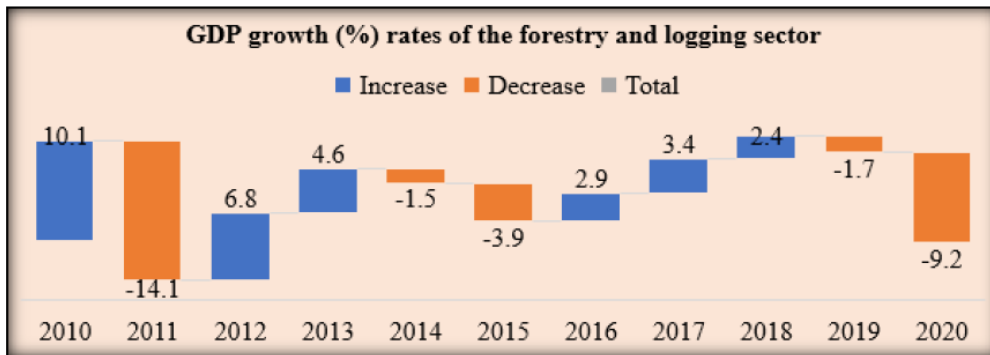


Figure 1. GDP growth rates for the forestry sector between 2010 and 2020

(Data source: GSS, 2020)

### 3.2 Forest Direct Investment (FDI) Flows in the Forest and Wood Sector

The growth of FDI into the forest and wood sector has fluctuated in the last decade with the most significant investment and growth coming in 2017 when nearly USD 12 million was made into the sector (GIPC, 2021). Before that, investment propositions made declined from more than USD 5.5 million in 2010 to USD 785,977.14 in 2011 and USD 586,444.90 in 2012. Investment begins to appreciate and declined again until the sharp increase in 2017. No investment proposition was made in the wood sector in 2018 with only USD 100,000.00 and 155,000.00 in 2019 and 2020 respectively. The data from 2019 could partially be attributed to the impacts of COVID-19 while the non-registration of any investment project in 2018, could be attributed to the unattractiveness of the sector because Ghana was adjudged the fastest growing economy in the world in 2018. However, the figures from the last three years show that investment in the forest and wood sector has declined precipitously.

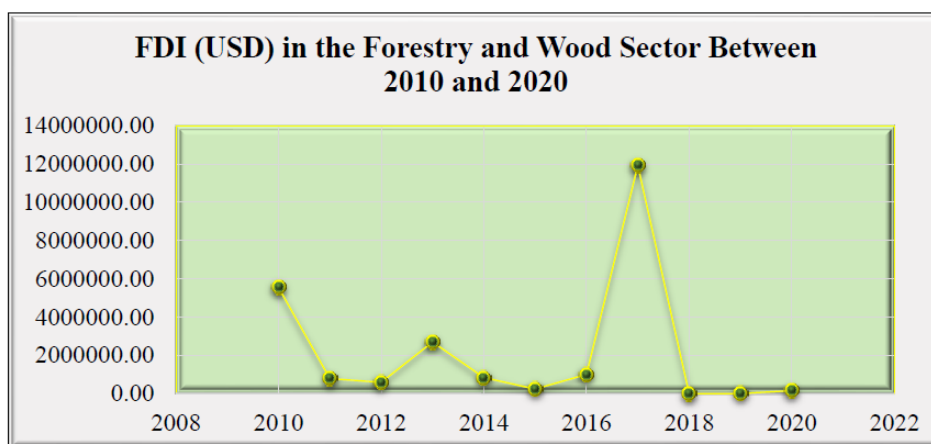


Figure 2. Foreign Direct Investments (FDI) into the forest and wood sector between 2010 and 2020 (Data source: GIPC, 2021)

### 3.2.1 Number of FDI Projects Made into the Wood Sector

Correspondingly, FDI projects have declined from 2010 to 2020. In 2010, investment propositions totaled seven (7) but started to decline from 2011 to 2020. The lowest investment project registered with GIPC was recorded in 2019 and 2020 when only a single project was registered. The data, particularly in the last year, matches the decline in investment value again highlighting the potential unattractiveness of investment into the forest and wood sector

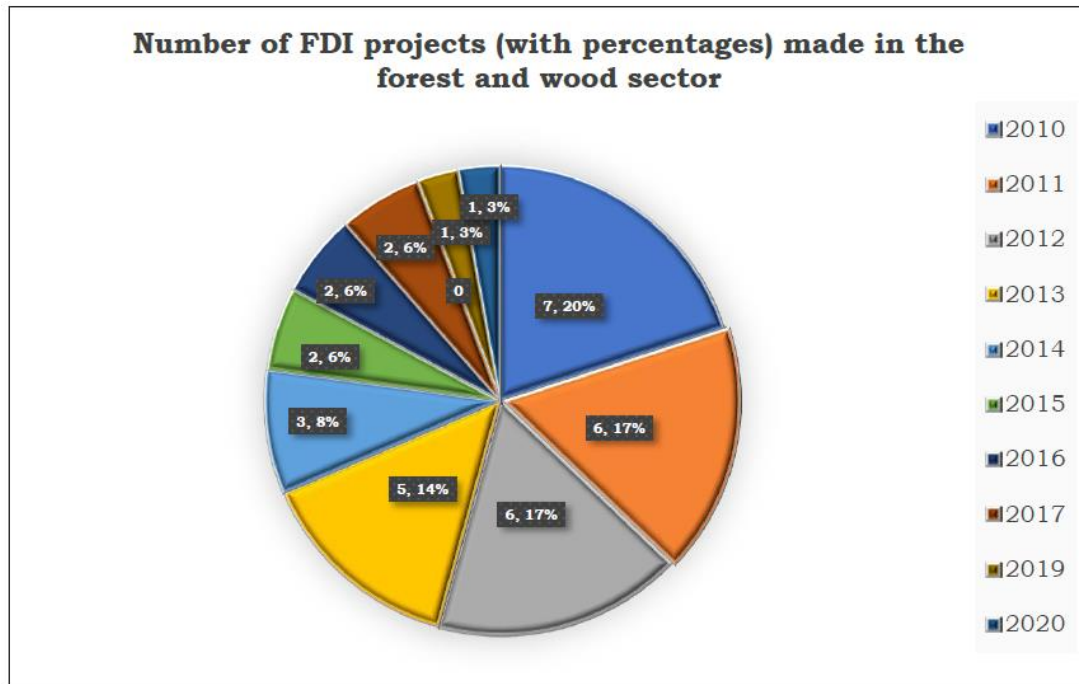


Figure 3. Total number of corresponding FDI projects made into the forest and wood sector between 2010 and 2020 (Data source: GIPC, 2021)

### 3.3 Export Volume

Export volume of timber and wood product of Ghana is solely dependent on the nature of supply of harvested timber volumes (FC, 2020). Generally, the sector observed a dwindling timber stock which certainly have a direct influence on the export volume of timber and wood products. Between 2006 and 2008, significant increases were realized (17.04% and 3.28%) respectively. Then, there was a sharp fall from 2008 to 2009 by 21.93% and continued to 2012, and increased afterwards to 31.03% in 2014. The highest increase in volume exported was recorded in 2016 after which it declined from 2017 to 2020. The highest rate of decline was identified in 2020 and this could be attributed to the Covid-19 Pandemic which affected most economic activities aside the dwindling stock of timber resources.

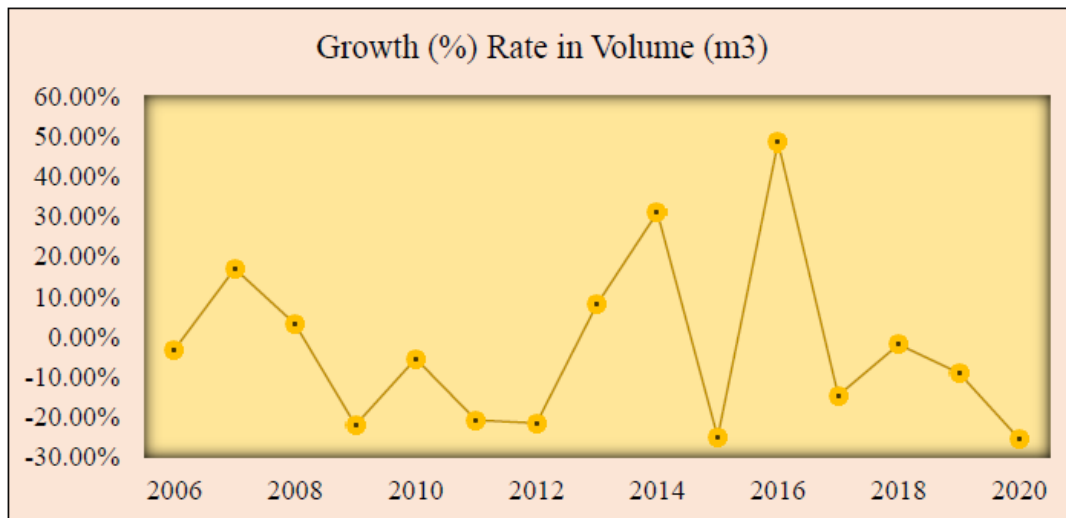


Figure 4. Percentage growth rate in timber and wood products volume export between 2006 and 2020 (Data source: Forestry Commission, TIDD 2020)

### 3.4 Export Income

Earnings from timber and wood products exports from 2006 to 2020 have totaled USD 2,577.76 million. 2016 remains the peak year of income inflow with 2020 the lowest recording USD 258.70 million and USD 116.15 million respectively. Following a decline from 2010 to 2012, export income appreciated until 2014 before a 4.67% depreciation in 2015. Export income grew by over 100% in 2016 and started a depreciation trend in the last four (4) years, recording a drop of 66.39% in 2019.

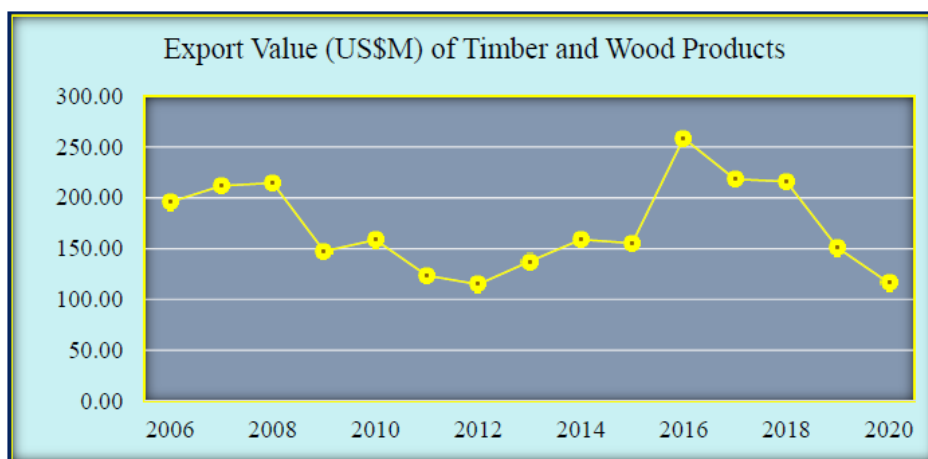


Figure 5. The trend of timber and wood products income from between 2006 and 2020 (Data source: FC, TIDD, 2020)

### 3.5 Forest Cover Change

The forest cover of the Ghana consists of the closed, open and plantation forest (Tufour, 2012). Between 2015 and 2020, Ghana experienced significant increases in the size of her forest cover. Constant increase of 0.53% was observed between 2015 to 2017. From 2018 to 2020, 0.09% growth was recorded. It is known and certain that some economic activities including agriculture, mining coupled with several illegalities post pressure on the forest cover of the country (Kuudaar, 2016). However, destructions caused through the above activities are restored through the adoption and implementation of the Ghana Plantations Strategy as indicated in Figure 7, hence the increasing trend.

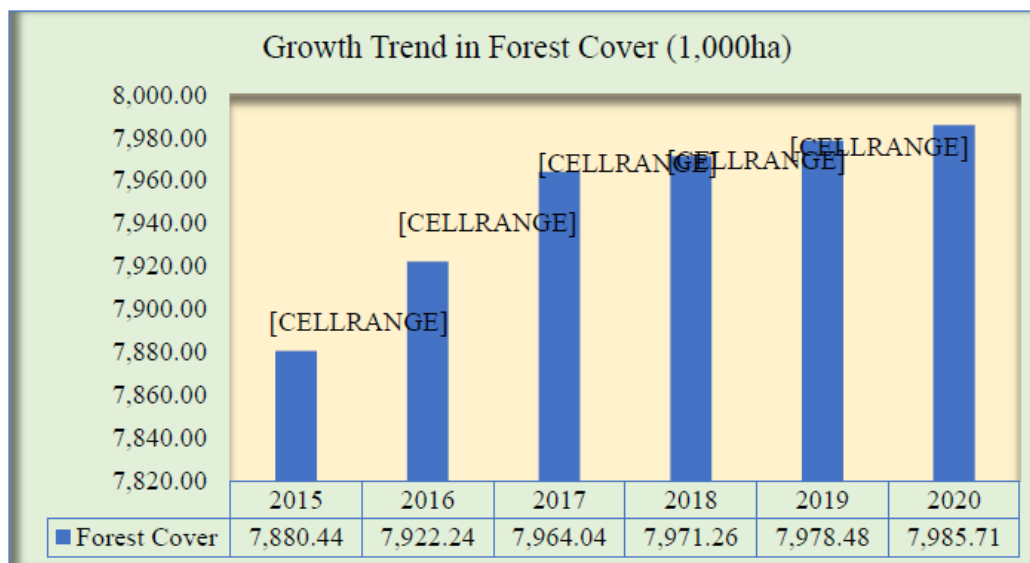


Figure 6. The growth trend in forest cover between 2015 and 2020 (Data source: Global Forest Resources Assessment, Ghana Report, 2020)

### 3.6 Forest Plantations

As part of the strategies to increase forest cover of Ghana, plantations are established to restore areas of landscape which are degraded. According to Forestry Commission (2021), between 2002 to 2020, total area of 266,243.66 hectares of forest plantations have been established by both government (191,863.53 ha) and private sector (74,280.13). It is realized that from 2002 to 2004, the country recorded increments in areas planted but declined sharply in 2005 by 35%. Minute increases were recorded till 2008 when a significant fall of about 39% was noticed. The highest growth occurred between 2017 and 2018, thus over 120% increments. During this period, Ghana launched a 25 year plantation development strategy which targeted to establish and 25,000 hectares of forest plantation per annum. National Youth in Afforestation Project was also introduced which contributed to the high establishment rate. The lowest area planted was in 2015 recording 53% fall from 2014 whilst the 37% decline in 2020 could be attributed to the Covid-19 pandemic.



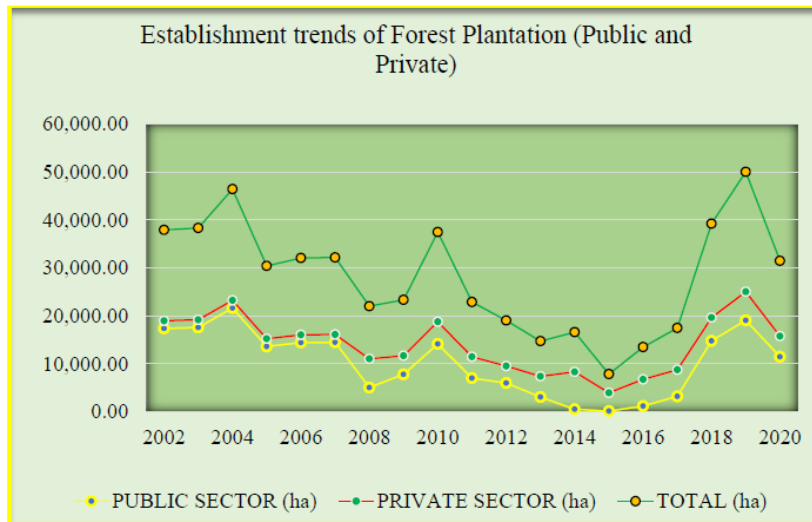


Figure 7. Trend of forest plantations establishment (Public and private) between 2002 and 2020 (Data source: Forestry Commission, Plantations, 2020)

### 3.7 Internally Generated Fund (IGF)

The sector generates an internal revenue mainly from stumpage fees, property marks, permits, export levies among many others. Between 2012 to 2020, the sector has been able to generate a total of GHS 650.85 million Ghana Cedis to fulfil its financial obligations to stakeholders and to support some of its operational activities. In 2014, the sector recorded the highest revenue of close to 400% growth rate. This was as a result of reforms undertaken to minimize revenue leakages within the system. However, a decrease of 16.96% was recorded in 2015, after which it shot up until 2018 where 5.15% decline was recorded. The 11.49% decline in 2020 is as a result of influence of Covid-19 pandemic on economic activities.

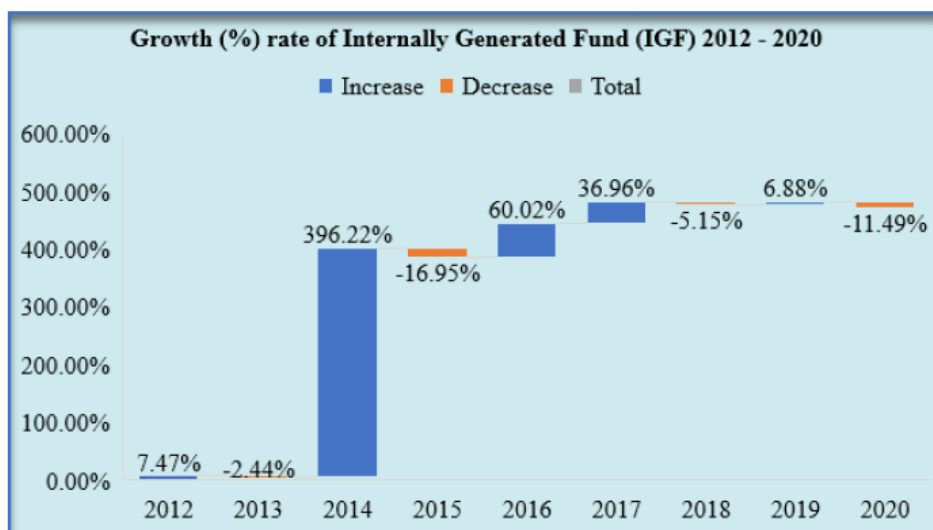


Figure 8. Trend of Internally Generated Revenue between 2012 and 2020 (Data source: Forestry Commission, Corporate Finance, 2020)

### 3.8 Ecotourism Visitation

The sector focuses on improving ecotourism facilities in order to achieve satisfactory utilization of wildlife resources in Ghana. Apart from export of flora and fauna, it is in the interest of the sector to increase community engagement by increasing attraction sites which would in turn contribute to revenue mobilization (Hoogstra-Klein et al., 2016). Between 2001 and 2020, total of 4,635,037 visitors (both local and international) to the various ecotourism sites including the Accra Zoo and Kumasi Zoo. The year 2005 was the peak year, the sector recorded over 62% increase in the number of visitors. From 2006, apart from 2008, the rest of the years declined until 2011 and 2012 which recorded increments (8.63% and 43.27% respectively) and later declined to 2015 (18.16%). In 2018 and 2019, an increase of 10.45% and 26.13% was recorded individually but declined sharply by 66% in 2020 as a result of ban on visits to attraction sites under the Covis-19 protocol. It is however, assumed that after the ban have been lifted the number of visitors would increase.



Figure 9. Trend of Visitors to Ecotourism Destinations between 2001 and 2020 (Data source: Forestry Commission, Wildlife Division, 2021)

### 3.9 Bamboo and Rattan Development

The sector in 2002, had a cabinet approval to adopt bamboo and rattan development as a national programme to complement forest plantation in Ghana. Bamboo and rattan constitute a major non-forest timber product identified in Ghana which are suitable complement for wood works. They are useful for building and construction, pulpwood, flooring, panel products and furniture as well. The Ghana government agreed with the Government of China to build a multi-million dollar bamboo and rattan training centre which intends to serve as one stop market for bamboo and rattan products and also house all artisan found in Accra under one roof. It is also intended to provided a training ground for all artisan in Ghana The Forestry Commission and Volta River Authority have also signed a memorandum of understanding to plant bamboo along the banks of the Volta Lake in order to protect it from drying up and also to prevent communities from farming along the river banks (FC, 2021)

#### 4. Analysis of Growth Potential

Ghana has a competitive advantage in terms of investment guarantees and incentives. They include free transferability of capital, profits, dividends, and payment in respect of foreign loans contracted; Insurance against non-commercial risks; Double Taxation Agreements (DTAs) – to rationalize tax obligations of investors to prevent double taxation, DTAs have been signed and ratified with several countries (GIPC, 2021). It is somewhat clear that to some extent, this competitive advantage has not been maximized by the forest and wood sector as indicated by the figures in both investment value and the number of projects registered (Figure 2 and 3). This, coupled with the fact that the informal sector is left redundant when it comes to forest statistics, planning, policy direction, and management overshadow the growth potential of the forest sector in Ghana (Beeko & Arts, 2010). Figure 10 shows the GDP of the forestry and logging sector by economic activity at current market prices from 2006 to 2019. The trend shows an overall increase in the economic performance of the sector amid the weak FDI and the neglect of the informal sector for economic and policy analysis. The trend reveals the innate potentials in the sector that when appropriately positioned to be more attractive for investment and the informal sector largely catered for in national statistics, policy, and management actions, this growth could be higher.

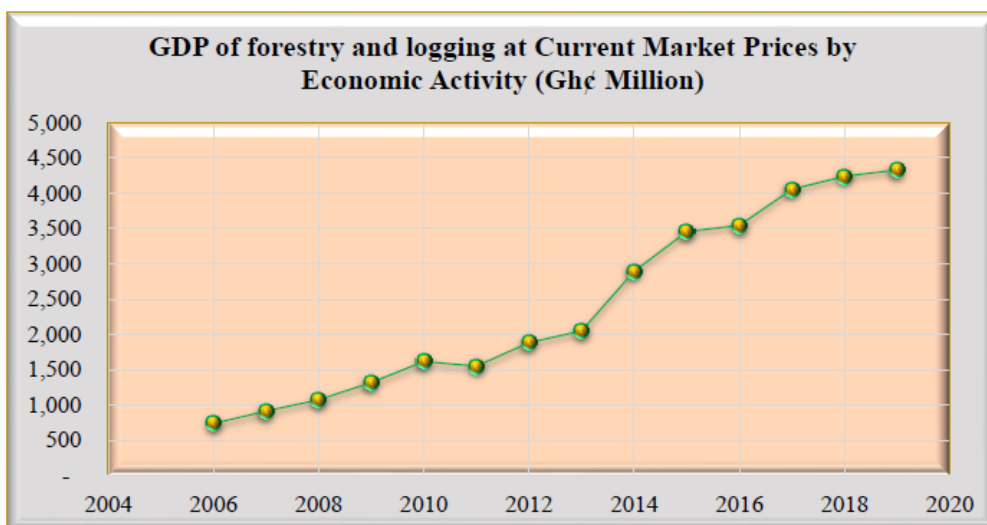


Figure 10. The trend of the annual contribution of the forestry and logging sub-sector between 2006 and 2019 at current market prices (GHC Million). The data shows an increasing trend in total GDP amount (Data Source, GSS, 2020)

At the center of the growth and performance of the forestry and logging sector has been an erroneous school of thought that, the sector is collapsing. While this may be partly true because of the decline in raw materials and stringent policies in place to regulate forestry practices, the sector still compares respectably to the cocoa sub-sector which is seen to have more upside in terms of growth and development (Tropical Timber Market, 2018). Figure 11 compares the GDP at current market prices from 2006 and 2019 between the two sub-sectors and the trend shows that from 2014, an anomaly of just 0.1% has been recorded between the

two with the first two years in favor of forestry and logging and the last four years for the cocoa sub-sector. That is the difference between the two sub-sectors, one provided with consistent attention, political drive, and incentives for operators to drive rapid growth and economic development compares to one that is fairly abandoned to collapse with job losses recorded across the forest value chain. Another interesting perspective is that logging and forestry have been significantly rooted in sustainable and responsible environmental practices with certification an underpinning prerequisite for operation in the sector now as evidenced by the implementation of FLEGT-VPA (European Commission & Forestry Commission, 2009). This, now, and when fully integrated stands to affect the business of many Ghanaians especially those working in the informal sector. Meanwhile, the same scrutiny is not afforded to cocoa production with certification protocols non-existent while the data clearly shows, agricultural extensification and particularly cocoa through the shifting cultivation and slash and burn practice is the number one cause of deforestation and forest degradation in the country, accounting for 50%. The growth of the forest and logging sub-sector should not be at the expense of another sub-sector but it is clear that the lack of attention and lack of clarity in economic drive and support detrimentally affects the growth of the sector are now contributing similar GDP share with a decreasing trend in recent years.

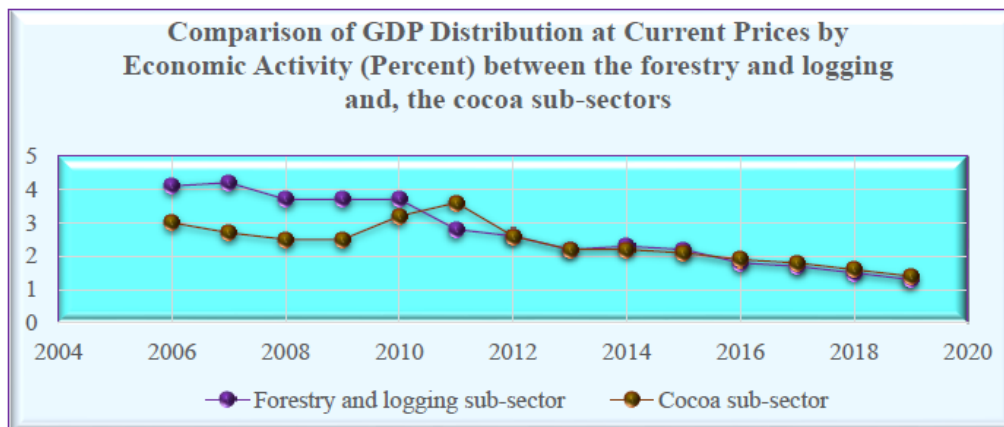


Figure 11. The comparative trend of GDP share between the forestry and logging, and the cocoa sub-sectors. (Data Source, GSS, 2020)

## 5. Challenges/Risk and Mitigation Measures

Illegal chainsaw milling has become one of the main forest governance issues in Ghana. Recent research estimates that illegal chainsaw operators fell more than 800,000 trees in a year (i.e. 2.4 million m<sup>3</sup>), exceeding the annual allowable cut (AAC) of 2 million m<sup>3</sup> of the formal industry. This means a total annual harvest level of about 4.4 million m<sup>3</sup> far beyond the sustainable level for forest resources (EU FLEGT Facility, 2015). In addition to policy review, as well as formalizing the operations of SMFEs, working together with rural communities such as the expansion of the CREMA model to all forest fringe communities and the high forest zone can help to reduce the rate of illegal harvesting (Marieke W. et al. 2011).

The forest industry is dominated by the utilization of obsolete machinery and hence contributing to low recovery and efficiency of outputs (Tropical Timber Market, 2018). Investment into technology such as computer-aided engineering systems can help to provide more precision in wood milling

There is a disconnect between ongoing scientific communications such as climate change, deforestation, and biodiversity conservation the practice of forestry in Ghana.

Traditional species are declining and there is the emergent need to provide evidence to relate the physical properties of lesser-used species to the traditional ones including finding and creating new markets for them that can help to reduce the pressure on the forest

## **6. Proposed Policy Measures**

The forestry sector is puzzled by many problems that require policy attention and various intervention to solve. This policy intervention and support could be made at the national, international, or local level (trade association) level and the government as the main stakeholder has a unique role to play. The following are key proposed policy measures.

### *6.1 Incorporating the SMEs into National Policies and Management Actions*

Government and regulatory agencies need to acknowledge the existence and importance of SMEs and making them part of economic analysis to project growth, innovation, job creation to social inclusion, and rural development. This means that all existing administrative barriers should be removed and incentives provided to formalize the business of SMEs. In addition, Government can help to drive investments into the forest and wood sector to make it more attractive including investing in technical education, provision of affordable finance to support the potential of SMEs

### *6.2 Creating Positive Impacts on the Sector through International Policies*

Government has a huge responsibility to the forest sector in terms of international policies by ensuring demand-side policies are supported by adequate and attractive supply-side measures with all obstacles removed to ensure smooth operation of forest business in Ghana. For example, FLEGT-VPA has huge implications for SMFEs in Ghana. Efforts must be made to utilize opportunities offered by these initiatives especially its potential to bring about investment in the forest sector and deal with emerging challenges. FLEGT-VPA for example has the potential to put most informal and unregistered SMFEs out of business and the government must be aware and responsive to these potential challenges and provide the necessary technical and policy support to curtail its negative consequences on forest business.

### *6.3 Helping to Develop the Capacities of Trade Associations through Logistic Support and Development Assistance*

Trade associations are handicapped logistically and this derails their ability to support their members both financially and technically. Most SMEs belong to associations and strengthening institutional support to associations is the most realistic entry point to reach SMEs in the sector. By empowering the associations through knowledge and increasing skills,

the long-term success of the sector is likely. It has become clear that for example, legal compliance training alone is not self-sustaining for most SME businesses. Instead, the government can help to drive their effectiveness by providing business support incentives that will help to drive the competitiveness of SMEs and improve the performance of due diligence. Finally, the government can help trade associations by providing small grants of around USD\$5,000–20,000, which represents a significant investment for an association to build on. This could be pivotal to the ongoing formalization of the informal sector and help reduce the rippling effect of illegal businesses in the sector socially, economically, and environmentally.

#### *6.4 Enhancing Protection of Wildlife Resources through Expansion of Ecotourism Infrastructure*

In adoption of strategies to improve short term development of wildlife resources, tourism attraction sites within wildlife protected areas could be created, which will control encroachments and add to revenue streams of the sector. For example, Ankasa, Kakum, Shai Hills, Mole etc. are being transformed in to recreational grounds for ecotourism, community participation and resource protection. Botanical gardens such as Legon Botanical Garden could be mimicked in the forest reserves and wildlife protected areas. Digya National Park could be developed into recreational and relaxation enclaves which will attract Public Private Partnership (PPP) agreements, thereby creating jobs in the long run and would help to reduce unemployment rate in the country.

### **7. Analysis of how Proposed Measures Increases**

#### *7.1 Production and Growth*

Ghana loses significant revenue by neglecting the SMFEs through non-registration and non-payment of permit fees and taxes, illegal and unstable operations, and the less than the optimal contribution of the sub-sector to people's livelihoods and poverty reduction. An estimated amount of \$25 million is lost annually. SMFEs lack the organization through associations, business registration, legality, and tenure security that is characteristic of enterprises in the formal forest sector. Finding sustainable solutions to these problems can go a long way to enhancing revenue generation to the government and in effect improving the growth of the sector. Formal operations will also mean that the distribution of illegal timber will decline with a positive effect on deforestation and forest growth and the possibility to operate within an acceptable annual allowable cut threshold.

#### *7.2 Jobs*

The forest sector is generally labor-intensive with relatively low capital investment. It is estimated that investments in upstream (primary) forestry activities can generate more jobs than most other sectors. It is estimated that an annual outlay of US\$1 million in forest management (including agroforestry) could generate from 500 to 1 000 jobs in many developing countries. There is the potential to create more jobs through SME's formalization and investment into other forest avenues such as plantation development, afforestation, technology, marketing, and innovation. The attractiveness of the formal sector for investment stands to create a multiplier effect because a major share of a forestry worker's income goes

to the purchase of goods and services, mainly at the local level, every one job created in forestry generates additional jobs in the economy, creating a ripple effect on employment. Also helping to properly institutionalize and improve the logistic strength of associations can create more jobs at secretariats in management, research, project development, marketing, and communication positions.

## 8. Conclusion

In conclusion, the government and regulatory agencies need to acknowledge the existence and importance of SMEs and making them part of economic analysis to project growth, innovation, job creation to social inclusion, and rural development. Trade associations are handicapped logistically and lacks modernity. This derails their ability to support their members both financially and technically. In attempt to adopt strategies to improve short term development of wildlife resources, recreational facilities within wildlife protected areas could be restructured, which will control encroachments and add to revenue streams of the sector and would contribute to economic growth as a whole.

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