Republic of Ghana

# PUBLIC EXPENDITURE REVIEW OF THE FORESTRY SECTOR

**FINAL REPORT SUBMITTED TO THE MINISTRY OF FINANCE**

**UNDER THE**

**NATURAL RESOURCES AND ENVIRONMENTAL GOVERNANCE (NREG) TECHNICAL ASSISTANCE PROJECT**

**BY**

EcoEcon

## Contents

**List of Acronyms**

| | |
|---|---|
| AAC | Annual Allowable Cut |
| ARIC | Audit Report Implementation Committee |
| BPUs | Business Planning Units |
| BOC | Board of Commissioners |
| BOG | Bank of Ghana |
| CAGD | Controller and Accountant General |
| CCU | Climate Change Unit |
| CF | Consolidated Fund |
| CRMU | Collaborative Resource Management Unit |
| CSO | Civil Society Organization |
| DAC | Development Assistance Committee |
| DACF | District Assemblies Common Fund |
| DPs | Development Partners |
| DCE | District Chief Executive |
| DFID | Department for International Development |
| EIA | Environment Impact Assessment |
| EPMD | Effective Patrol Man Days |
| EU | European Union |
| FAO | Food and Agricultural Organization |
| FAA | Financial Administration Act |
| FAWAG | Furniture and Wood Products Association of Ghana |
| FLEGT | Forest Law Enforcement, Governance and Trade |
| FC | Forestry Commission |
| FCTC | Forestry Commission Training Center |
| FIP | Forest Investment Programme |
| FM&R | Forest Management and Regulation |
| FOB | Freight on Board |
| FS | Financial Statement |
| FSD | Forest Service Division |
| FWP | Forest and Wildlife Policy |
| GAG | Ghana Auditor General |
| GDP | Gross Domestic Product |
| GIFMIS | Ghana Integrated Financial Management Information Systems |
| GoG | Government of Ghana |
| GPRS II | Growth and Poverty Reduction Strategy |
| GSBAs | Globally Significant Biodiversity Areas |
| GSGDA | Ghana Shared Growth and Development Agenda |
| GSS | Ghana Statistical Service |
| GTMO | Ghana Timber Millers Organization |
| HQ | Head Quarters |
| IGF | Internally Generated Funds |
| IMF | International Monetary Fund |

| | |
|---|---|
| KWCI | Kumasi Wood Cluster Initiative |
| LEB | Log Export Ban |
| LI | Legislative Instrument |
| LUS | Lesser Used Species |
| MDAs | Ministries, Departments and Agencies |
| MESTI | Ministry of Environment, Science, Technology and Innovation |
| MLNR | Ministry of Lands and Natural Resources |
| MMDA | Metropolitan, Municipal and District Assemblies |
| MMSE | Micro Medium and Small Scale Enterprises |
| MoF | Ministry of Finance |
| MOPs | Manual of Procedures |
| MRV | Monitoring, Reporting and Verification |
| MTEF | Medium Term Expenditure Framework |
| NDPC | National Development Planning Commission |
| NGO | Non-Governmental Organization |
| NTFP | Non Traditional Forest products |
| NREG | Natural Resource and Environmental Governance |
| OECD | Organization for Economic Cooperation and Development |
| OHCS | Office of the Head of Civil Service |
| PAs | Protected Areas |
| PBB | Programme Based Budgeting |
| PEFA | Public Expenditure and Financial Accountability |
| PER | Public Expenditure Review |
| PES | Payment of Environmental Services |
| PFM | Public Financial Management |
| PSC | Public Services Commission |
| SEA | Strategic Environment Assessment |
| REDD+ | Reducing Emissions from Deforestation and Degradation |
| RMSC | Resources Management Support Center |
| RWE | Round Wood Equivalent |
| SBS | Sector Budget Support |
| SMEs | Small and Medium Enterprises |
| SRAs | Social Responsibility Agreements |
| TIDD | Timber Industry Development Division |
| TNA | Training Needs Assessment |
| ToR | Terms of Reference |
| TRF | Timber Rights Fee |
| TUCs | Timber Utilization Contracts |
| TVD | Timber Validation Department |
| VLTP | Validation of Legal Timber Project |
| VPA | Voluntary Partnership Agreement |
| WAG | Woodworkers Association of Ghana |

| | |
|---|---|
| WD | Wildlife Division |
| WITC | Wood Industry Training Center |

## 1.0 Introduction

### 1.1 Background

Forestry has historically been a critical sector in Ghana, supporting livelihoods and providing employment and foreign exchange earnings for the country. It is estimated that about 11 million of Ghana's population lives in forest areas and about two-thirds of rural livelihoods are directly or indirectly supported by forest activities.

Over the past years the Government of Ghana (GoG) has provided majority of finance for forestry activities. It's financing of the forestry sector increased from 18.9 percent of total forest expenditure in 2007 to about to 63.1 percent in 2014 even though expenditure on the forestry sector as a share of total government expenditure had been declining. Internally Generated Funds (IGFs), consisting of stumpage fees, export levy, timber right fees and royalties, among others which used to be the highest source of financing for the Forestry Commission (FC) declined from 40.2 percent to 16.7 percent over the same period. With the share of Plantation Development Grant to the Commission's income declining from 26 percent to 12 percent and recurrent grant from donor agencies also declining from about 15 percent to about 8% over the period, one can conclude that donor support for the sector is dwindling.

The declining revenue in the forest sector can be attributed to a myriad of issues including inefficiencies in wood utilization, poor value addition, poor enforcement, rent seeking among public officials, among others[1]. In addition, forests are not capturing resource rent for resource owners nor contributing significantly to government revenue. Furthermore, accountability to owners of the resource is taken for granted with illegal logging and forest clearing for agriculture being widespread. These among others have the potential to create serious financing challenge for the Commission, going forward.

The Ghana Shared Growth and Development Agenda II (GSGDA II) (2014-2017) is the country's current national development policy framework formulated to ensure continued pursuit of macroeconomic stability and the sustainable exploitation of Ghana's natural resource endowments, particularly minerals and forests that will propel the country into a full middle income status by 2020 with a per capita income of US$ 3,000.

In the midst of the financing challenges facing the forestry sector, achievement of the goals specified in the framework and by implication the Forest and Wildlife Policy (FWP) of 2012 may be difficult. To resolve this and other challenge, some studies were commissioned such as,

[1] Birikorang, G. and Rhein M., 2005. Reforming the Ghana Forest fiscal regime. Forest Sector Development Project Phase II.

Amissah Arthur (2008), Birikorang[2] (2008) and Abor (2008). However, these studies focused on providing baselines information on expenditure, revenues, financial management, budget processes and organizational issues without providing a link of these variables to the real output and outcomes of the forestry sector as well as providing information on how to improve efficiency and effectiveness in spending.

To address this gap, the Ministry of Finance (MoF) under the Natural Resources and Environmental Governance (NREG) Technical Assistance Project commissioned this study that reviews public expenditure in the Forestry Sector and examines the internal processes relating to the public financing of the FC as well as the relevance, efficiency and effectiveness of its expenditure. The study builds on all the earlier studies mentioned as well as others such as the 2012 Draft Report of Financial Management Support Mission of Martin van der Linder, Ecorys Research and Consulting, among others.

## 1.2 Objectives

The overall objective of this review is to identify existing costs and spending patterns as linked with outputs and outcomes under established sector priorities, assess how budgetary re-alignment can be achieved to better respond to the mandates and responsibilities of the forest sector agency as well helping drive improvement in their performance and service delivery. The specific objectives of the review are to:

1. Get a comprehensive picture of the budget and actual expenditure of the forestry sector;
2. Identify causes for differences between budget allocation and expenditure.
3. Analyse relevance, efficiency and efficacy of spending of the FC and other sector agencies against the stated policy priorities of the Government.
4. Generate policy –relevant insights to improve the capacity of the FC and the Ministry of Lands and Natural Resources (MLNR) regarding public expenditure management.
5. Provide to the FC, the MLNR and MoF and by implication the GoG with recommendations on how to improve budget allocations and improve efficiency of spending.

The detailed Terms of Reference (ToR) has been attached as Appendix 1.

## 1.3 Relevance

This study is quite imperative and relevant because very little has been done on public expenditure review for the forestry in Ghana largely as a result of data challenges and complexity of analysis. The study will help the GoG identify existing costs and spending patterns as linked with outputs and outcomes under established sector priorities, and assess how

[2] Birikorang, G. (2008) Public Revenue Analysis Of The Forestry, Mining And Environment Sectors. NREG Programme; Ministry of Finance and economic Planning

budgetary re-alignment can be achieved to better respond to the mandate and responsibilities of forest sector agencies. This will help drive improvement in sector performance and service delivery; help policy makers make informed decisions about future spending to enable sector objectives to be achieved as well as providing recommendations that will feed directly into the budget process and forest policy development.

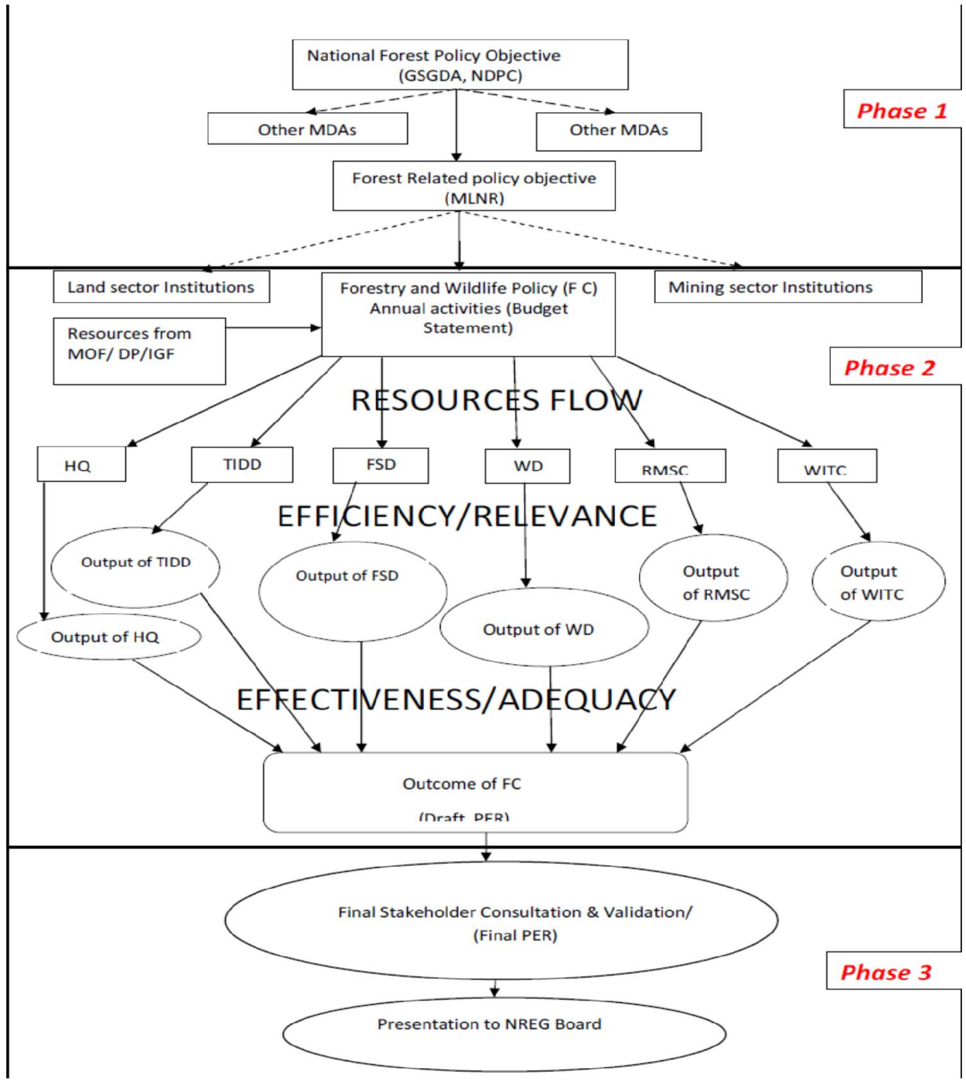
**1.4 Outline of Report**

The report has nine sections. Following this section is section 2 which provides the methodology and approach for the study and section 3 that provides the macroeconomic and sectoral context. While section 4 provides the institutional framework for forest management in Ghana, section 5 discuses the budget cycle. Key issues of expenditure and revenue of the forestry sector are discussed in sections 6 and 7 respectively followed by a discussion of output, efficiency and outcomes of the sector in section8. The last section concludes the paper and makes policy recommendations.

**2.0 Methodology and Approach**

This section discusses how the research was designed focusing more on the methods employed to collect and analyze the data. The research methodology employed in the study is multidisciplinary and integrated, involving a combination of qualitative and quantitative data collection and techniques of analyses to perform an expenditure review of the forestry sector.

*Figure 2.1: Methodological framework*




To properly undertake the assignment the methodology was sectioned into three (Figure 2.1) which has been thoroughly explained in the next sections.

## 2.1 Desktop Research and Preliminary Stakeholder Consultation

The key objective of this phase is to assess existing data and data gaps, ensure that a range of stakeholders are informed and consulted and review the methodology and literature on public expenditure in the forestry sector. This objective was achieved by reviewing the policy documents in the country relevant to the forestry sector including Amissah Arthur (2008), Birikorang (2008), Abor (2008) and Martin Vander Linder (2012) as well as from empirical studies on the topic. Specific reports that provide information on inputs, outputs and policies of the FC at this stage included the National Budget Statements of the MoF; Annual Progress

Reports of the GSGDA II and the GSGDA II of the National Development Planning Commission (NDPC); Annual reports of the MLNR and the Annual Reports, Financial Performance Reports, Internal Audit Reports of the FC, amomg others.

These documents permitted us to have a good knowledge of the policies, both quantitative and qualitative the inputs and outputs in the sector and enabled us to design three policy- input - output – outcome matrix framework for the different level of administration at the FC. This was used to request data on how the various policies of the divisions link inputs, outputs of the divisions and related outcomes which have been attached as Appendices 2 to 4.

To undertake an assessment of budget formulation and execution at the various Divisions, an assessment tool was prepared (attached as Appendix 5) and administered to key staff members of the divisions. This tool sought to capture data on issues relating to budgetary information, release of funds and related issues. Furthermore, specific tables were developed to collect data on quantitative and qualitative outputs, expenditure, IGF at the Divisional levels which has been attached as Appendices 6 to 8.

Having developed these instruments, a meeting was held with Divisional Heads, Budget Officers and Accountants of the various Divisions in the FC to seek their inputs, educate them on how to complete the instruments and to solicit their help in completing the instruments.

**2.2 Stakeholder Consultation /Field visits**

*Members of the Team in a Group photograph with members of WAG, GTMO and FAWAG*

Equipped with information obtained from the desktop research and preliminary stakeholder consultation stage, field visits were made to the various divisional headquarters of the FC: Timber Industry Development Division (TIDD) in Takoradi; Wood Industry Training Center (WITC) and Resource Management Support Centre (RMSC). in Kumasi, Forest Services Division (FSD), Wildlife Division (WD) at the FC Headquarters in Accra and to some of the operational stations- Offinso in the Ashanti Region. The objectives of the consultation was to, educate the budget and operational officers on how to complete the data collection instruments, interact with them on the challenges, as well as having firsthand information on the operations of the Divisions. Meetings were also held with key beneficiaries of the services of the FC such as the Woodworkers Association of Ghana (WAG), Furniture and Wood Products Association of Ghana (FAWAG), Ghana Timber Millers Organization (GTMO), some Chiefs in the Offinso Traditional Area, Traditional Leaders, Assembly Members, key informants, tourists, Ghana Water Company Limited, among others. Based on the information collect from both literature and from the field, a draft report was produced.

In order to build consensus, a workshop will be organized with various stakeholders to solicit their inputs. Specifically, the workshop will be used not only to solicit inputs of various stakeholders but also to inform and educate them on the nature of public finance in the FC, discuss contentious issues, get new ideas, validate the results and generate consensus. Based on the outcome of the workshops and meetings, the team will finalize the report and map out strategies for the next steps in using the report.

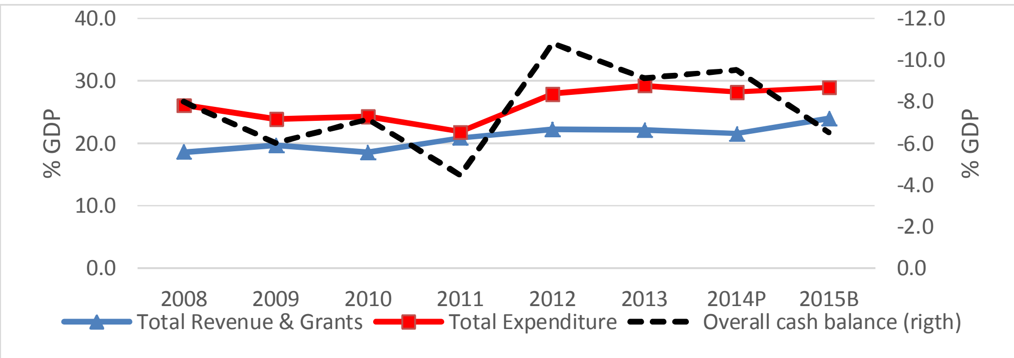
## 3.0 Macroeconomic and Sectoral Context

This section of the report using readily available information elaborates on the national fiscal situation as well as the performance of the forestry sector paying particular attention to the contribution of the sector to the economy, employment generation and exports. The section also elaborates on the state of Ghana's forest.

### 3.1 National Fiscal stance

Ghana witnessed some economic growth over the past decade with the real GDP growth rising steadily from 3.7 percent in 2000 to 8.9 percent in 2012 before decelerating slightly to 7.2 percent in 2013, and a further decline to 4.2 percent in 2014. Despite this growth, Ghana has had challenges with fiscal management/discipline with persistent double digit budget deficit recorded in recent times, which is undermining the country's growth and poverty reduction prospects. Poor revenue collection built upon an inadequate tax base and low tax compliance combined with expenditure overruns - that are occasioned largely by election-linked public expenditure increases and under-performed natural resource revenues - has led to large fiscal deficits and mounting public debt stock. The fiscal deficit rose from 4.0 percent of GDP in 2011 to 12 percent in 2012. By the end of 2013, budget deficit to GDP ratio was 10.1 percent while public debt to GDP ratio stood at 56 percent, increasing to 67 percent by the end of 2014.

*Figure 3.1: Total Revenues, Expenditures and Fiscal Balance, 2008-2015*




*Source: Ministry of Finance, 2015*

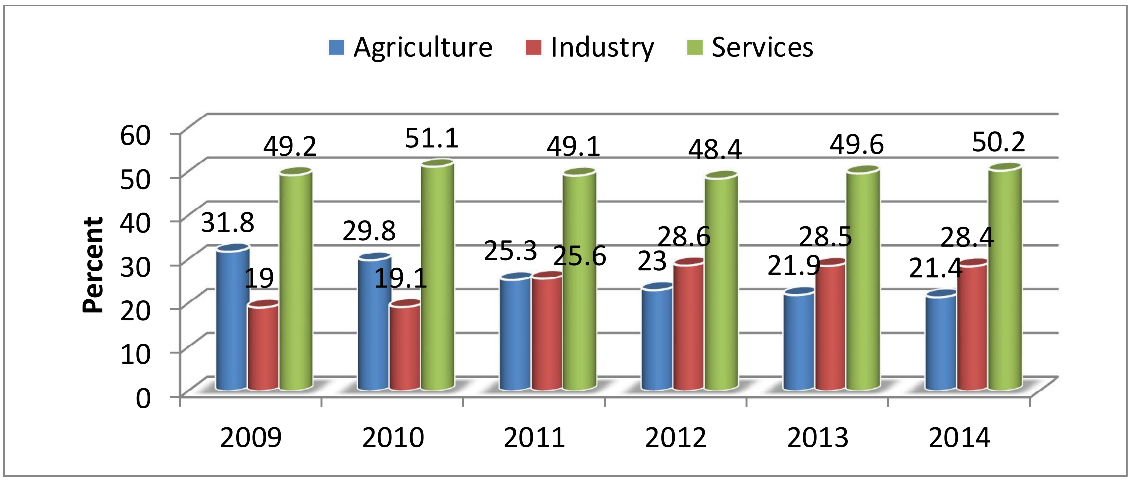
The knock on effect of these large deficits was about 29 percent depreciation of the local currency against the US dollar and inflation rising rapidly to about 17 percent by the fourth quarter of 2014. The result has been a drastic fall in economic growth rate from 7.3% in 2013 to

4.2 percent in 2014. However, growth is expected to rebound to 9.3% by the end of 2017 as a result of an on-going fiscal consolidation program with the IMF and the projected increase in production and export of oil from the new fields.

### 3.2 Sectoral Performance

The Ghana Statistical Service (GSS) re-estimated the size of the economy and concluded that GDP in 2010 was nearly 80.0% larger than would have been the case under the old method of calculation. That method was based on 1993 production and consumption patterns. The new estimates were derived from 2006 (base year) patterns as well as other considerations, such as better data sources. For the base year, the GSS reported that the economy was 60.0% larger than previously thought.

*Figure 3.2: Sector Contribution to GDP, 2009- 2013*




*Source: Ghana Statistical Service*

The revisions led to changes in the composition of economic output. The share of agriculture, for instance, fell from 41.0 percent in 2005 (under the old method) to 21.9.0 percent in 2013 (GSS, 2013). The share of industry, meanwhile, rose from 20.8 percent in 2006 to 49.6 percent in 2013. This was partly as a result of oil production, which increased the share of industry. It must be noted that the relative decline of agriculture in output is normal in the course of development and is a sign of a maturing economy, with growing diversification, where industry and services increasingly account for the bulk of output and employment. The growth in industry's share, from 19.0% in 2010 to 28.0% in 2013, was almost entirely due to oil production in 2011, whose share rose from zero in 2009 to 8.1 percent 2013, higher than those of traditional sectors like cocoa (2.2%), forestry and logging (also 2.2%) and manufacturing (5.8%).

### 3.3 Forest Sector Performance

The forestry sector provides economic, social and environmental benefits to the national economy and forest-dependent local communities. About 14 per cent of Ghana's population constitutes forest fringe communities who directly depend on forests for about 35% of their livelihoods.[3] At the national level, wood fuel accounts for 78 percent of households' primary energy consumption.[4] Forests also support employment in the timber and wood industry. Allowing for the effects of down-sizing in the 2000s, the formal sector, largely export-oriented, presently engage about 90,000 hands.[5] The informal sector, which consists mainly of chain saw operators, also employs about 130,000 people and it is the main source (84%) of supply for the domestic timber market.[6] According to the Ghana Poverty Reduction Strategy II (GPRS II) evaluation, poverty reduction among rural forestry households occurred in contrast to failures among agricultural population. Primary forestry contributes 4 per cent to GDP and the forest industry, is currently the fourth largest foreign exchange earner after minerals, cocoa and oil exports[7] contributing about 2.5 per cent of the country's foreign exchange earnings.

Even though the tangible contribution of the forest to GDP may not be that encouraging, the intangible contribution that it makes which in many cases are not captured by GDP could be very enormous. Forest helps in providing identity to many Ghanaians especially those inhabiting in the forest zones. It provides shelter for many fauna and flora and a home to many endangered species such as bare-headed rock fowl, chimpanzees and forest elephants.

The forestry sector in Ghana has a strong linkage with health. Majority of the Ghanaian populace hold in high esteem traditional medicine. The worth of medicinal plants is estimated to be around US$30 million[8]. Another important aspect of the forestry in the country is the provision of protection for rivers. Many of the rivers take their sources from forests. Typical example is the Atiwa Mountain Range forest that serves as source for Densu, Ayensu and Birim rivers[9]. Forests are also important as an environmental asset and have demonstrated the potential to generate indirect use value such as watershed protection, wind-breaks from forest shelter belts, biodiversity, micro-climate to sustain agriculture and soils and other ecological services.

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[3]Mayers, J., Birikorang, G., Danso, E., Nketia, S.K. and Richards, M. Assessment of Potential Impacts in Ghana of of a Voluntary Partnership Agreement with the EC on Forest Governance. Final Report. International Institute for Environment and Development (IIED)2008

[4] FAO/GCP/RAF/354/EC "Sustainable Forest Management Programme in African ACP Countries - Wood Energy Planning and Policy Development

[5] Birikorang, G. Okyne, R., Afrane, S, Asenso-Okyere, K. and Robinson, G. Ghana Wood Industry and log export ban study DFID/FC 2001;

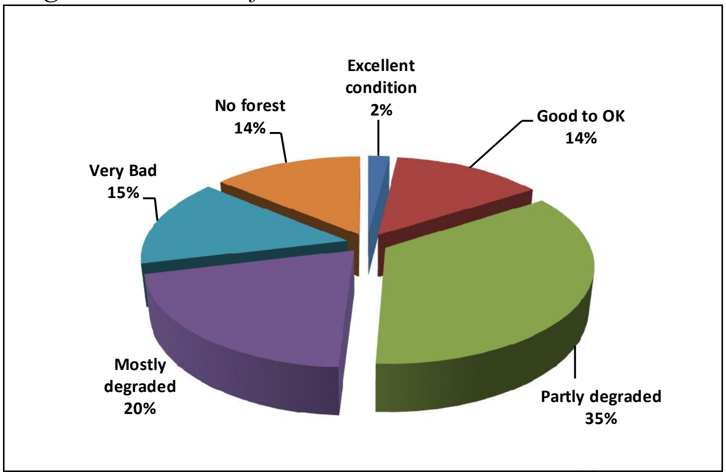
[6] Oduro, K.A., Duah-Gyamfi, A., Acquah, S. B., and Agyeman, V.K. (2012). Ghana forest and wildlife hankbook.

[7] MLNR. Forest and wildlife Policy, 2012

[8] Essabra-Mensah, E. Forestry's contribution to economy dwindles, 2015.

[9] Kpelle, D. Contribution of the forestry sector to socio-economic development Ghana's experiencing reporting, data collection and challenges, 2013.

*Figure 3.3: State of Ghana's Forest reserves, 2008*




Source: Modified from Hawthorne and Juam[10],

One major concern of policy makers is the loss of over 75% of Ghana's original forest cover by the turn of the last Century. Ghana's original forest cover of 8.2 million hectares has decreased to an estimated 1.6 million hectares by the year 2010[11]. Deforestation rate in Ghana has been around 2% per annum for the period between 1990 and 2010, leading to an annual loss of about 135,000 hectares of forests.

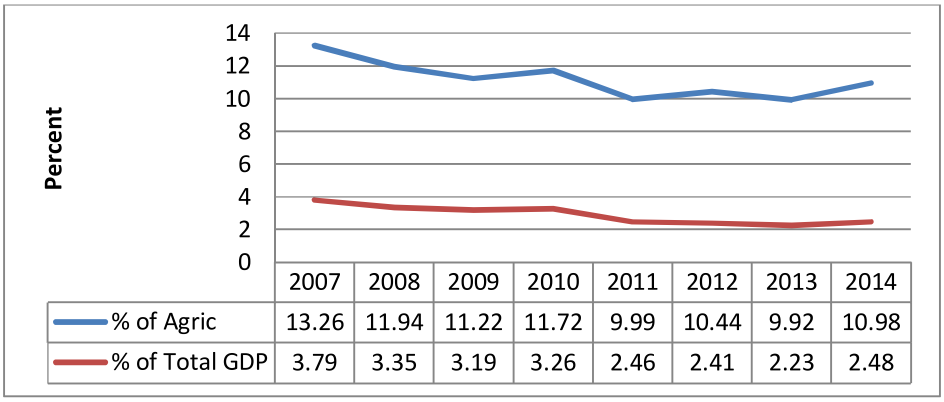
Figure 3.3 provides information on the state of Ghana's forest reserves. From the figure it can be seen that less than 20% of forest reserve areas have acceptable levels of integrity: only 2% are considered to be in "Excellent" condition and another 14% in "Good" condition. Currently, the survival of the remaining reserves is at risk of depletion from continued illegal-logging and agricultural clearing. Several factors has led to the depletion of the forest resources of the country including population growth and the recognizable policy failure.

### 3.4 Forestry Contribution to Agriculture and Total Gross Domestic Product

The forestry subsector makes considerable contribution to Agricultural sector GDP and total GDP. Over the period 2007-2014, the contribution of the forestry sector to agricultural GDP *has* generally been declining. It decreased from about 13.26 percent in 2007 to about 10.98 percent in 2014 (Figure 3.4). The contribution of the sector to national or total GDP followed the same trend by declining from about 3.79 percent in 2007 to about 2.48 percent in 2014 at an annual average rate of - 5.3 percent. This decline is largely attributable to decline in export revenue as a result of the dwindling forest resource base[12].

[10] Hawthorne, W. D., & M. Abu- Juam. Forest protection in Ghana with particular reference to vegetation and plant species IUCN/ODA, 1995.
[11] FAO (2010) World Forest Resource Assessment, 201
[12] Oduro et al., 2012. Op cit

*Figure 3.4: Forestry Contribution to agriculture and Total GDP*




*Source: FC Annual Reports (2007 – 2014)*

### 3.5 Exports of Forest Products

The composition of Ghana's merchandise exports has also not experienced any major transformation over the last decade. The country continues to export primary commodities such as unrefined minerals, raw agricultural products and crude oil, together contributing about 86 percent of the country's total exports. Mineral export is dominated by gold which accounted for US$4,965.7 million (96.6%) of total mineral export earnings, and contributed 37.1 percent to the country's total export earnings in 2013 (Table 3.1). Cocoa beans, which used to be the second leading export earner before the oil production is, as at 2013, contributing just about 11 percent to the total export earnings, with a value of US$1,612.1 million. The growth rate over the last five years has been sluggish, growing annually by about 7.4 percent, compared to 19 percent of gold.

*Table 3.1: Composition of Ghana's Merchandise Export (2008-2013)*

| Exports Products | 2008 (US$, mil) | 2009 (US$, mil) | 2010 (US$, mil) | 2011 (US$, mil) | 2012 (US$, mil) | 2013 (US$, mil) | Contribution to exports (%) | Av Growth Rate (%) |
|---|---|---|---|---|---|---|---|---|
| **Merchandised Exports** | 5269.7 | 5839.7 | 7960.1 | 12785.4 | 13542.7 | 13751.9 | 100 | 26.8 |
| **Of which:** | | | | | | | | |
| **Gold** | 2246.2 | 2551.4 | 3803.5 | 4,920.20 | 5,643.30 | 4,965.70 | 36.1 | 18.9 |
| **Cocoa beans** | 1225.1 | 1422.4 | 1594.36 | 2,027.90 | 2,192.70 | 1,612.10 | 11.7 | 7.4 |
| **Timber** | 316.8 | 179.8 | 189.5 | 165.7 | 121.4 | 165.8 | 1.2 | -8.1 |
| **Oil** | 0 | 0 | 0 | 2,778.50 | 2,976.10 | 3,885.10 | 28.3 | 7.5 |
| **Non-Traditional** | 1340.9 | 1215 | 1629.2 | 2423.3 | 2364.4 | 2418.6 | 17.6 | 14.7 |

*Source: Bank of Ghana*

The timber industry is the fourth largest foreign exchange earner after gold, cocoa and oil exports. It is also important to note that the performance of timber exports can be best described as abysmal. The share of timber in merchandise export revenues has declined from 6.8 percent in 2003 to 1.2 percent in 2013, reaching its lowest ebb (0.9%) in 2012. It is noteworthy that, as mentioned previously, timber export earned Ghana around 10% of the foreign exchange between 1990 and 2000 but there has been a considerable decline since 2005 from 8.1% to about 1.3% in 2011 (FIP, 2012). This decline, according to the FC, can be attributed to ongoing dwindling natural tropical forest resource base, low production recovery rates, wood wastes and illegal chainsaw activities

A recent study reports that Ghana's original forest cover of 8.2 million hectares has decreased to an estimated 1.6 million hectares by the year 2010[13]. Deforestation rate in Ghana has been around 2% per annum for the period between 1990 and 2010, leading to an annual loss of about 135,000 hectares (FAO 2010). The decline in the forest resources has resulted in major adverse consequences for the timber industry. For instance, while about 60 local timber companies out of 200 processing mills have collapsed in the last 10 years, leading to the loss of about 30,000 jobs, companies that had managed to survive the turbulence in the industry are currently producing below 50 per cent capacity[14].

**Export of Wood Products**

Revenue and volumes of export of wood products are presented in Table 3.2. The volumes of wood products exported and revenue from the export of wood products over the period 2007 to 2014 have declined. Volumes of export have declined from 528,570 $m^3$ to 356,036 $m^3$ in 2014 while revenue declined from Euro 184,174,022 to Euro 138,215,618 over the same period.

In the period between 2007 and 2014, the value per cubic meter has increased from €348 to €439. In between this period the value has fluctuated recording its lowest value of €301 in 2009.

*Table 3.2: Revenue and Volumes of Export*

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| **Revenue (Euros 'mil)** | 184.74 | 186.61 | 128.23 | 137.85 | 107.43 | 99.89 | 119.33 | 138.22 |
| **Volume ($m^3$)** | 528,570 | 545,915 | 426,222 | 403,254 | 319,843 | 251,346 | 271,772 | 356,036 |
| **Average Unit Value (Euro/ $m^3$)** | 348 | 342 | 301 | 342 | 336 | 397 | 388 | 439 |

*Source: FC Reports (2007 – 2014)*

Also, export volumes of wood products have declined consistently over the period in question. This, according to the FC, is as a result of the depletion of forest resources, the decline in reforestation programmes and a lower number of timber licenses recorded in the last few years.

[13] Ghana Investment Plan for the Forest Investment Program (FIP), 2012

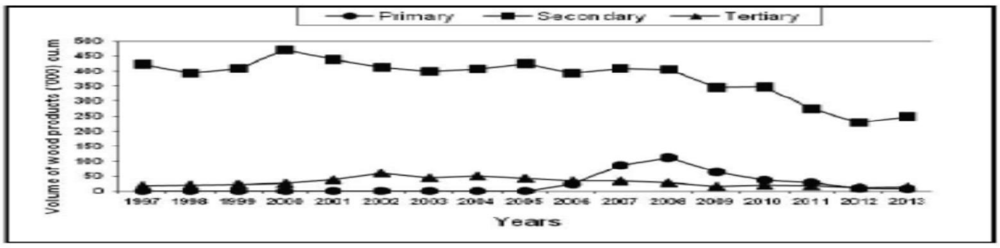
[14] Acquah, S. B., Avuglah, R. K. and Haris, E. (2014). Time series Behaviour of the volume of Wood products Export in Ghana. International Journal of Statistics and Probability, vol. 3 (4).

Despite several government interventions, the volume of wood products export is still declining resulting in reduced export earnings. In 2007, Ghana earned about 187.74 million Euros from the export of 528,570 *m*3 of wood products. By 2012 however, total export volume of wood products declined to 25 1346 *m*3 valued at 99.8 million Euros, showing an annual rate of decline of 8.7 percent in volumes. Such a situation has got the potential to compromise the sustainable development aspirations of the country[15]. Although both volumes and value of exports have increased in the last two years, the levels remained substantially below levels recorded in the early 2000s. According to TIDD, this decline is compounded by increased domestic demand which has resulted in high illegal timber extraction. The decline has also been attributed to the global concern for the trade in illegal timber. The depletion of the resource to some extent com

**Value Addition of Wood Products for Exports**

Although Table 3.2 shows that the highest volume of wood products export was in 2008, due to high volume of primary products the total earnings was not the highest for that year. This underscores the importance of value addition of Ghana wood exports through secondary and tertiary processing in order to increase the value of export earnings[16].

*Figure 3.5: Trends in the volume of wood products export from 1997-2013*




*Source: Acquah et al (2014)*[17]

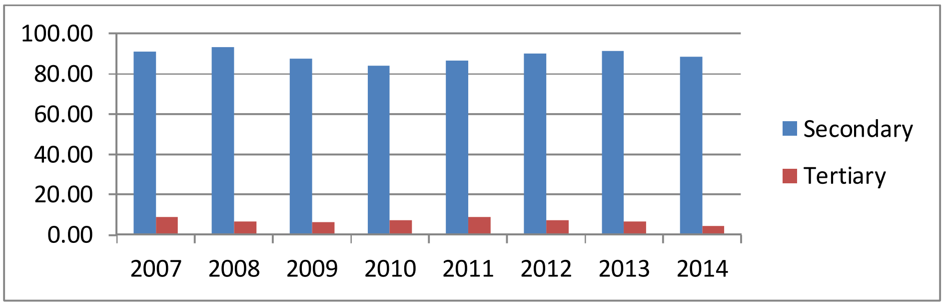
The composition of wood products exported can be categorized into three namely, (1) Primary: Poles, Billets, logs; (2) Secondary: lumber (air dried, kiln, overland), boules (air dried, kiln), veneers, blockboards, plywood, kindling and (3) Tertiary: dowers, flooring, processed /moulding, profile boards, and furniture parts.

[15] Twerefou, D. K., Osei-Assibey E. (2008). Environmental Sustainability and Poverty Reduction in Ghana. In J. Amoako-Tuffour and B. Armah B (Eds), *Poverty Reduction Strategies in Action: Perspectives and Lessons from Ghana* (pp 295-312). Lexington Books, New York. ISBN-13: 978-0-7391-1010-2.

[16] However, the significant spike in 2008 could also be due to the reduction in the timber export levy from 3% to 1.5% chargeable on all timber exports from Ghana instituted in January 2007 as contained in FC 2007 Annual report.

[17] *Acquah et al (2014), Op cit.*

*Figure 3.6: Decomposition of Processed Wood Export Revenue*



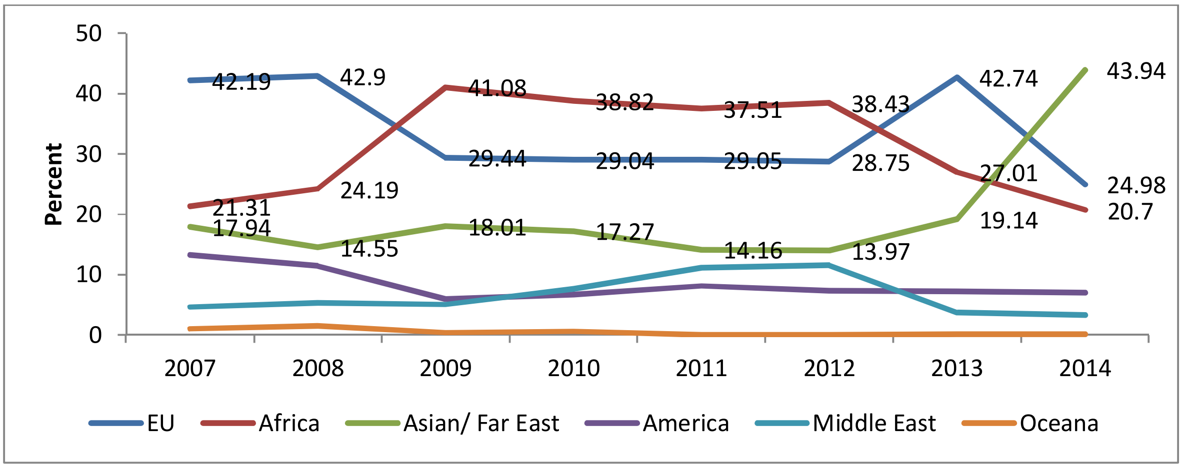

*Source: TIDD Export Permits Reports*

The bulk of the exports are processed wood products. Figure 3.6 shows export shares of processed and unprocessed products. Secondary products accounted for about 89 percent of the total volume of wood products export and 92 percent of the total export earnings over 2007 to 2014.

**Wood Products Export Destinations**

The main export destinations for Ghana's timber products are Africa, Asia/Far East, Europe, Middle East, and Oceania. The cumulative share of export revenues from the various export destinations for the period 2007 to 2014 is presented in Figure 3.7.

*Figure 3.7: Forest Export Destination by Percentage Share of Total (2007-2014)*




*Source: Forestry Commission Annual Reports (2007 – 2014)*

The European Union (EU) which used to be the major destinations for Ghana's wood products over decades has seen its share of exports declining sharply from about 42 percent in 2007 to 25 percent in 2014. The main reason is that currently, the FLEGT/VPA process, including the Timber Regulation in the EU, demand high quality standards for wood products and the demand for certified wood products is also increasing[18]. Likewise, African share of wood products, after increasing sharply and emerging a leading export destination between 2008 and 2012, has in recent times experience a sharp decline. This is in part due to trade embargo on a number of products including processed wood product by Nigeria which used to be a major destination of wood product exports.

An emerging destination for wood products is Asian/Far East. The share of exports to this destination has increased sharply from 2012 and has overtaken both EU and Africa to become the leading export destination of the country's wood products. The main export markets include India, Malaysia, Taiwan, China, Singapore and Thailand. However, over the period under consideration (2007-2014) the volume of exports has fluctuated widely, raising concerns about the sustainability of this market. According to a recent study, these upward and downward movements observed in the export volumes of Ghana's wood products by the Asia/Far East markets over the period are perhaps a reflection of the FC's intermittent actions necessitated by the need to streamline Teak production and exports to the Asia/Far East markets[19]. Thus, within the period the bidding process for teak production was intermittently suspended and reviewed until it was finally halted when the standing stock of Teak in Ghana's forests was thought to be dwindling, particularly in government plantations. Production from private plantations however continued.

*Table 3.3: Major Destinations of Ghana's wood products by Value and Volume, 2007-2014*

| | **Europe** | | **Africa** | | **Asia/Far East** | | **America** | | **Middle East** | | **Oceania** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Years** | Mil. Euros | Vol. (000) m3 | Mil. Euros | Vol. m3 | Mil. Euros | Vol. (000) m3 | Mil. Euros | Vol. (000) m3 | Mil. Euros | Vol. (000) m3 | Mil. Euros | Vol. (000) m3 |
| **2007** | 77.7 | 160 | 39.24 | 142 | 33.04 | 139 | 24.43 | 55 | 8.49 | 29 | 1.97 | 3 |
| **2008** | 80.06 | 181.09 | 45.14 | 173.12 | 27.15 | 110.54 | 21.37 | 45.86 | 10 | 32.34 | 2.89 | 2.97 |
| **2009** | 37.75 | 83.42 | 52.68 | 200.44 | 23.1 | 98.47 | 7.69 | 17.87 | 6.44 | 24.71 | 0.57 | 1.31 |
| **2010** | 40.03 | 85.3 | 53.52 | 191.43 | 23.81 | 81.88 | 9.22 | 18.1 | 10.49 | 24.56 | 0.78 | 1.98 |
| **2011** | 31.2 | 63.89 | 40.29 | 162.71 | 15.21 | 51.43 | 8.69 | 12.64 | 12.01 | 29.17 | 0 | 0 |
| **2012** | 28.7 | 52.02 | 38.37 | 140.19 | 13.95 | 22.31 | 7.32 | 11.09 | 11.5 | 25.64 | 0 | 0 |
| **2013** | 47.89 | 84.21 | 30.26 | 91.66 | 21.45 | 51.55 | 8.04 | 14.17 | 4.2 | 8.25 | 0.21 | 0.37 |
| **2014** | 34.52 | 69 | 28.61 | 82.69 | 60.72 | 177 | 9.73 | 17.18 | 4.51 | 3.75 | 0.09 | 0.06 |
| **Annual Growth Rate** | -6.95 | -7.14 | -3.39 | -5.22 | 10.47 | 3.40 | -7.52 | -8.59 | -5.86 | -10.88 | -11.93 | -12.25 |

Source: FC

18 Acquah et al. (2014) op cit
19 Acquah et al (2014), op cit.

The Validation of Legal Timber Project (VLTP) that enforces the regulated harvest limit, contribute to securing forest revenues as well as assist government to meet its commitment under the Voluntary Partnership Agreement with the EU, was initiated in 2005. The project is expected to improve the future cash flow of the forest sector as a result of a reduction in illegal timber exports. The Commission has also started the process of converting timber leases to Timber Utilization Contracts which is expected to increase income generation. There has also been both government and private plantation development programmes that aims at replenishing degraded forests and increasing the forest cover.

Relevance of an administrative Annual Allowable Cut (AAC) of 2 million $m^3$ (in contrast to a legal AAC of 1million $m^3$ established to support policy reforms in the 2000s (Birikorang et. al., 2014) has progressively declined as there has been a declining trend in official harvest levels. The sector currently faces a wood balance close to one and a half times the legal AAC (Table 3.4). In this context, a previously existing formal sector threat of over-harvesting is now less of an issue, in contrast to a continued illegal harvesting by the informal sector, which, at the operational level, is dominated by forest communities.

*Table 3.4: Trends in Ghana Wood Balance, 2007-12*

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|
| Wood Balance (formal sector), $m^3$ | -510,200 | -559,757 | -217,777 | -152,154 | 86,163 | 281,869 |
| Wood balance (national), $m^3$ | -2,210,200 | -2,259,757 | -1,917,777 | -1,852,154 | -1,613,837 | -1,418,131 |

Challenges in the sector justifies the paradigm shift of the 2012 FWP that places more emphasis on non-consumptive values of the forest and the creation of a balance between timber production and marketing to satisfy particularly domestic wood demands.

## 4.0 Institutional framework for forest management in Ghana

Institutions are the bed rock for the development of a any system. Better institutions that are defined to include the laws, regulations administrative/organizational structure, among others, play a very significant role in the development of every organization. In this section, we discuss the legal, regulatory and sector institutional frameworks as well as review briefly the incentive structure and political economy of the sector that has the potential to influence financial management of the sector. The section also assesses the public, private, and community-based roles and responsibilities as well as sector goals and priorities.

### 4’.1 National institutional imperative

Ghana takes the issue of environment, and by implication forestry, seriously. This is reflected in articles 36 (9) [20] of the Constitution of Ghana (the Directive Principles of State Policy) which covers issues pertaining to the environment including forestry.

The GSGDA II has recognized the challenges of forest and wildlife degradation and depletion, and has developed broad objectives for the sector (see Box 1). In the medium term the policy of government in the forestry sector focuses on reversing forest and land degradation, promoting efficient land use as well as ensuring efficient land management systems in the country.

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[20] 36 (9) The State shall take appropriate measures needed to protect and safeguard the national environment for posterity; and shall seek co-operation with other states and bodies for purposes of protecting the wider international environment for mankind.

Strategies that are being put in place to address issues in the forestry sector include promulgating strict national legislation on bush fires and the use of liquefied petroleum gas; creating specialized courts to adjudicate protected area offences; strengthening the law enforcement unit of the WD; investing in industrial scale tree farming in specific depleted forest reserves and on degraded land; promoting plantation/woodlot development; conserving human-centered biodiversity; encouraging the use of Lesser Used Species (LUS), promoting the utilization of non-traditional tree species such as rubber-wood, coconut and bamboo and appropriate agriculture intensification techniques; reclaiming degraded and deforested land by timber and mining companies, ensuring value addition to timber products; strengthening and developing local level capacity to participate in the management and governance of natural resources as well as other policies on efficient land use and management..

*Box 1: Broad Objectives of the GSGDA for the Forestry Sector*

- Reduce the loss of biodiversity
- Build institutional frameworks for sustainable natural resources management
- Maintain and enhance the protected area system
- Strengthen the legal frameworks on protected areas
- Sustainable use of wetlands and water resources
- Enhance community participation in environmental and natural resources management by awareness raising
- Ensure the restoration of degraded natural resources
- Reverse forest and land degradation
- Encourage appropriate land use and management
- Enhance community participation in governance and decision making
- Strengthen and develop local level capacity to participate in the management and governance of natural resource
- Adapt to the impacts and reduce vulnerability to climate variability and change
- Encourage reforestation of degraded forest and off reserve areas, including adopting a medium to long term Plan for Plantations Development and Afforestation programmes, both public and private
- Assist investors, under the Forestry Plantation Project, to go into industrial-scale tree farming in specific depleted Forest Reserves and degraded land
- Encourage private investment in commercial forestry outside forest reserves and along dried-up and flowing streams and rivers
- Encourage and promote the use of lesser used species (LUS), particularly for the construction industry on the domestic market.

*Source NDPC. 2014 GPRS*

## 4.2 Sectoral institutional Framework

Ghana's over-arching forest policy since colonial administration and lately under the sector's 1994 Forest and Wildlife Policy (FWP) has been to protect the permanent forest estate. "Timberization" of forest policy and the relatively heavy dependence on timber revenue and its distribution had by 2008 become an issue (International Institute or Environment and Development (IIED,) 1994)[21]. Until the initiation of reforms in the 2000s, wildlife had largely become a public good, while at the same time it contributed external economies to the tourist sector. The 1994 FWP prescribes collaborative natural resource management strategy with forest

[21] IIED. Falling into place: Policy that works for forests and people. Vol. No. 4 (Ghana).

community. However, the underlying community rights and expected benefits were largely unrealizedheightening community demands and Civil Society Organization (CSO) advocacy for better benefit sharing deals.

The global threat of illegal logging and pressure to introduce governance reform, particularly on tropical timber–resourced nations, to ensure legality of timber brought Ghana to enter into a Voluntary Partnership Agreement on Forest Law Enforcement, Governance and Trade with the European Union (VPA-FLEGT) in 2010. Global warming and related issues with climate change mitigation and adaptation enabled Ghana to re-position itself after the Conference of Parties in Bali on forest governance. These, among others, led to the revision of the policy under the 2012 FWP.

The revised FWP seeks to: (i) consolidate good governance through accountability and transparency (ii) enhance active participation of communities and land owners in resource management and addressing issues on tree tenure and benefit sharing (iii) promote small and medium forest and wildlife enterprises as a means of job creation for the rural and urban poor (iv) increase biodiversity conservation (v) promote sustainable management of savannah woodland (vi) promote ecotourism development (vii) increase government commitment to degraded landscape restoration through massive plantation development schemes (viii) improve research and application of modern and scientific technology in resources management (ix) develop climate change adaptation and mitigation measures, and (x) secure sustainable financing for the forest and wildlife sector.

In a gist, the new policy shifted focus from over reliance on timber harvesting to conservation of biodiversity and watershed management which will provide long term benefits to all Ghanaians as well as encourage reforestation and restoration of degraded landscapes. [22] In addition to the 2012 FWP, there are other Legislative Instruments (LI) that regulate the sector or have indirect implication for the sector. These include the Timber Resources Management Act, 1997 - Act 547 and its Regulations including LI 1649 and L.I. 1721; Timber Resources Management (Amendment) Act, 2002 - Act 617; Financial Administration Act, 2003 - Act 654) and its Regulations (2004).

### Forest Administration

The MLNR is responsible for formulating forest and wildlife policy and giving political direction in relation to them. Under the 1992 Constitution, Article 269[23], the FC exercises the constitutional mandate to regulate and manage the utilization and conservation of forest and wildlife resources. The MLNR is responsible for formulating forest and wildlife policy and

[22] Ministry of Finance (2014), 2015 Budget Statement. Item 181

[23] (1) Subject to the provisions of this Constitution, Parliament shall, by or under an Act of Parliament, provide for the establishment, within six months after Parliament first meets after the coming into force of this Constitution, of a Minerals Commission, a Forestry Commission, Fisheries Commission and such other Commissions as Parliament may determine, which shall be responsible for the regulation and management of the utilization of the natural resources concerned and the co-ordination of the policies in relation to them.

giving political direction in relation to them. Under the 1992 Constitution, Article 269, the FC exercises the constitutional mandate to regulate and manage the utilization and conservation of forest and wildlife resources. The Forestry Commission Act, 1997 (Act 571) provides for the appointment of a Board of Commissioners (BoCs). The BoC's fundamental role is to give interpretation to political direction and to provide strategic direction to the FC management for policy implementation. In exercising its mandate of oversight over the forest sector, MLNR's responsibilities include ensuring that the BoCs accomplishes forest governance at the FC level. In this context, the BoCs has responsibility for ensuring the (a) transparency and accountability in all FC operations, including regular disclosure of allocations of forest revenues to landowners and communities, quarterly payment, without arrears, to the OASL of all stumpage shares of landowners and MMDAs and timely submission by FC of quarterly reports on such payments not later than 30 days within the next quarter; (b) preparation by FC of both annual reports and audited financial statements of the Commission as required under Act 571 and sections (55) and (56)of the Financial Administration Act, 2003 (Act 654), and more specifically in conformity with laid down procedures and that FC's annual budgets include reasonable amounts for reinvestment in the forest asset, as well as FC's infrastructure and human resources. Within the broader context of overseeing the BoCs performance, the MLNR seeks to ensure there policy failures are avoided.

Historically, the FC has undergone a number of parent legislation that on all occasions, safe the latest, prescribed an advisory role, advising the political head of the sector on forest policy. The FC was structured with a Chairman and sector departmental heads, responsible for policy implementation and sector research and professional bodies serving as members.

An original intent to establish the Forest Service as an Authority translated into the establishment of the FC as a Body Corporate under the FC Act, 1997 (Act 571).[24] The Forest Service and Wildlife Department, previously operating as service structures responsible for implementation of forest and wildlife policies, respectively and the Timber Export Development Board, (responsible for timber Industry development and market intelligence) and Forest Products Inspection Bureau (responsible for timber and wood trade regulation and inspection), merging under a strategic rationalization policy to form the Timber Industry Development Division (TIDD), now form Divisions of the FC Corporate Body.

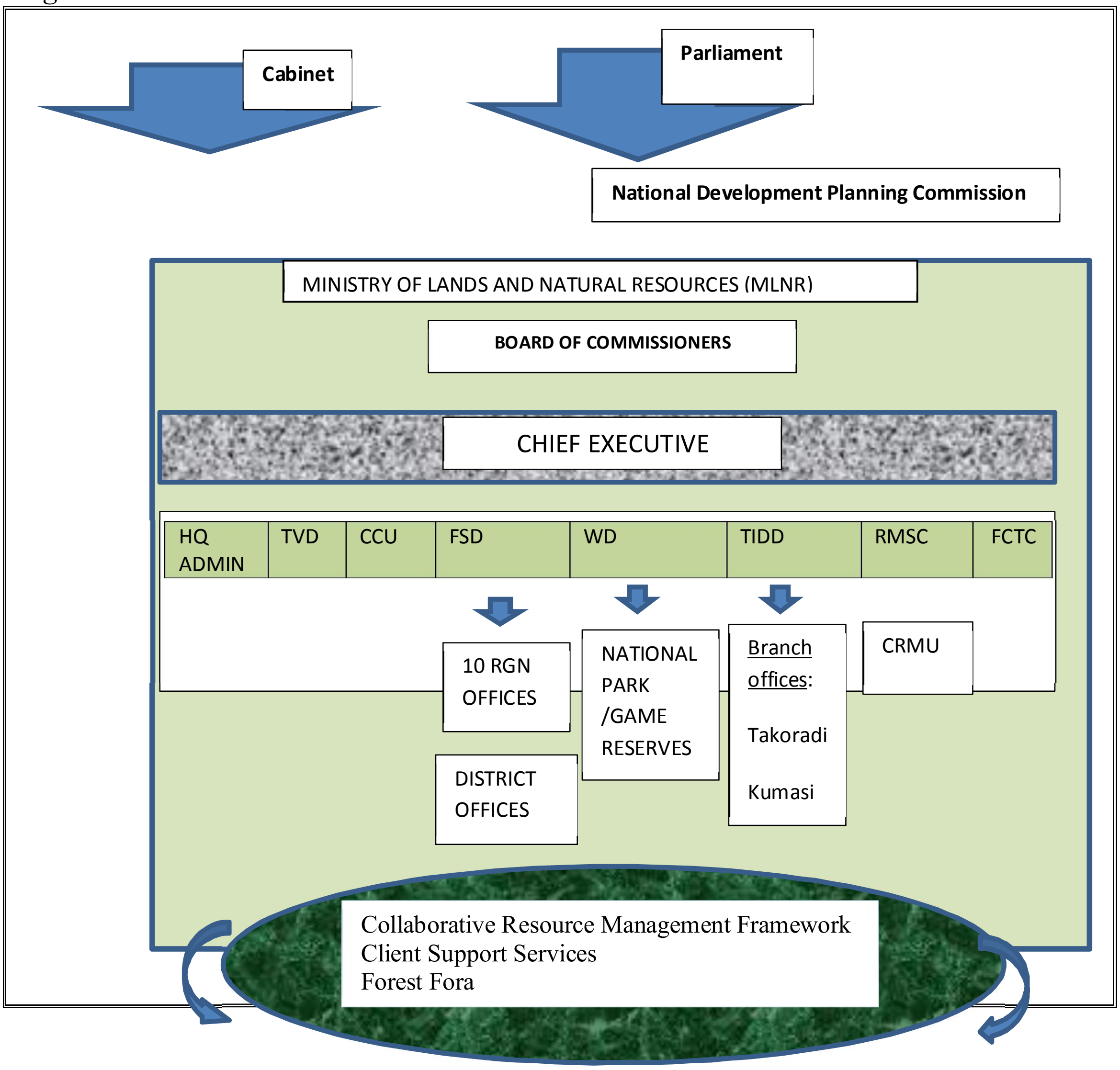
The FC of Ghana is responsible for the regulation of utilization of forest and wildlife resources, the conservation and management of those resources and the coordination of policies related to them. In addition to providing a range of technical services, the Commission also provides market intelligence to inform both Government and industry on pricing, trade and product trends.

Currently, in addition to the activities of the FC Headquarters, the FC has five main Divisions and Centers that operationalize the activities of the Commission – the Wildlife Division, the Forest Services Division, the Timber Industry Development Division, The Resource

[24] A draft legislation to convert the Forestry department into a Forest Authority in the mid-1990s was objected by the Attorney-General on the grounds of conflict with Constitutional provisions that made the FC responsible for forest management and regulation.

Management Support Centre (RMSC) and the Wood Industry Training Center (WITC) which has been recently reorganized to form the FC Training Center (FCTC). In the next sections we discuss the mandates of these Divisions and Centers. Figure 4.1 provides the structure of forest administration in Ghana.

*Figure 4.1: Forest Administration*



| Forest Stakeholders | | | | | |
|---|---|---|---|---|---|
| Traditional Authorities | MMDA | Industry | Forest Communities | NGOs | CSOs |

HQ- Headquarters; TVD-Timber Validation Department; CCU- Climate Change Unit; FSD- Forest Service Division; WD-Wildlife Division; TIDD-Timber Industry Development Division; RMSC-Resource Management Support Centre: FCTC- Forestry Commission Training Centre; CRMU-Collaborative Resource Management Unit

The WD implements Government of Ghana (GoG) policy of safeguarding the integrity of the nation's wildlife through management and sustainable development of wildlife and their habitats for their perpetual optimization of contribution to national socio-economic development. Towards this broader goal, WD seeks to

- Manage nations Protected Areas and regulate the utilization of wildlife resources
- Promote public awareness, education, communication and support for wildlife conservation
- Promote eco-tourism development in protected areas
- Develop wildlife management capacity at the national, district and community levels and
- Facilitate research to support wildlife development

The FSD implements Government of Ghana (GoG) policy of safeguarding the integrity of the permanent forest estate through protection, management and development of forest resources for the benefit of resource owners and in the national interest at large. In relation to these, it seeks to

- establish planning systems for protection, harvesting and development of forest reserves for their sustainability;
- regulate harvesting of the resource;
- provide management and technical services in relation to its core functions;
- promote public awareness and support for conservation and
- facilitate development of forest plantations in order to expand the national forest cover.

The FSD is also responsible for managing savanna woodland resources. Savanna forests largely comprising woodland patches in a mosaic landscape dominated by grassland is an important national resources and a highly significant source of livelihoods for local people. There are the coastal and northern savanna landscapes, both having similar characteristics and coming under similar influences of anthropogenic activities. There is virtually no scientific documentation on the stock of the savanna asset, it being subjected to unsustainable use for the supply of fuel wood and charcoal to urban areas and for local consumption. Savanna ecosystems are also important having regard to its vast area forming the catchment for the Volta River Basin systems. Various land-use forms also threaten the existence of the savanna forest resource, these including bushfires and unsustainable farming.

Most of the gazetted forest reserves in the savannah are without approved management plans to guide exploitation. The objective of the FC towards the savanna, however, is to bring its forest resources under sustainable forest management. In the northern Savanna, the FC manages part of the national assets in wildlife protected areas.For the Savanna areas, a number of strategies have been formulated for resource development. Key among them are:

(a) Developing systems and technologies for sustainable management of savannah woodland resources for environmental protection and enhancement of socio-economic development;
(b) Sustainable utilization and development of wetlands;
(c) Promotion of sustainable management of mangroves to safeguard the wetlands and also protect endangered species like the marine turtles; and
(d) Development of Ghana's national strategy in response to the climatic changes.

The TIDD implements Government of Ghana (GoG) policy of promoting maximum utilization of timber and wood resources for the optimum benefits of all segments of society in consonance with environmental sustainability and guarantees for future generations' access to the resource through a regulation of the timber and wood products trade and promotion of efficiency and development of an integrated timber and wood processing industry. Towards this broader goal, TIDD seeks to

- Regulate the timber trade and industry through industry registration, enforcement of export contract approval and permitting procedures, application of grading rules in timber and wood product markets, inspection, effective development and dissemination of appropriate timber industry standards, facilitation of trade arbitration and monitoring of timber and wood flows from domestic and foreign origins.
- Promote trade and industry development through sale of wood and wood products through trade missions, fairs and exhibitions, increased utilization of Lesser Used Species (LUS) on local and international markets, efficient utilization of timber and wood products, integrated development of the timber and wood industry, including the

development of the tertiary wood products sub-sector, and in particular, implementing strategic plans to promote poverty reduction among small-scale carpenters.

- Provide market intelligence, as well as publication and dissemination of technical information brochure for the benefit of the industry.
- Provide technical services, including the coordination of foreign technical assistance for the development of the Ghana timber industry, and building capacity and upgrading skills of both industry and the regulatory institutions.
- Collaborate with local and international agencies in the development, promotion, utilization and marketing of wood products.
- The FC has also assigned TIDD responsibility for administration of the Forest Improvement and Plantation Development Levy.

As the technical wing of the FC, the RMSC generally provides technical and advisory support to forest and wildlife policy. In particular, it supports effective implementation of forest and wildlife policy by the Divisions and other organizational units of the FC. In relation to these, RMSC seeks to develop, implement and/or facilitate and monitor effective and affordable forest and wildlife management systems, as well as develop forest and wildlife prescriptions to support globally acceptable standards and protocols. Stakeholder collaboration is an overarching strategy of RMSC. In support of these broader goals, RMSC seeks to:

- provide data, information and technical guidance for forest management planning and implementation, industry development and generally for review of forest and wildlife policy
- develop and facilitate adoption of effective, efficient and affordable forest, savannah and wildlife management and monitoring systems, and enforce compliance with related management prescriptions
- in relation to monitoring, develop and review Manual of Procedures (MOPs) and post harvesting checks
- in relation to enforcement, provide quality control measures to ensure adoption of certified forest and wildlife systems
- develop and implement national forest assessment protocols and monitoring systems, this includes REDD+ Measuring, Reporting and Verification (MRV) and VPA programmes
- train FC Division and Units as well as other organizations for implementation of forest and wildlife management systems,
- undertake inventory planning and management to support sustainability of forest and wildlife resources and environmental quality, and provide updates on the state of the nation's forest and wildlife resources
- provide consultancy and extension services in forestry and wildlife governance

Training and skills development of FC staff and forest stakeholders are considered by FC to be a pre-requisite for attainment of its legal mandate. The FCTC[25] is established to develop and implement appropriate strategies for technical training of FC staff and forest stakeholders in

[25] The FCTC was formed from the WITC

order to accomplish MLNR's sustainable forest and wildlife policy. In line with its mandate, FCTC seeks to:

- provide short-term and refresher technical courses for the forestry and wildlife sectors
- introduce staff to emerging issues in the forestry and wildlife sectors and to new technical tools
- provide orientation to new graduate entrants into the Commission
- assist the wood industry with appropriate technology in downstream processing.

**The regulatory framework, legislation and forest incentive structure**

Under its Climate Change Agenda, Ghana has committed to participating in the implementation of international mechanisms for reducing emissions from deforestation and forest degradation, sustainably managing and conserving its forests and enhancing carbon stocks (REDD-plus). It has further committed to assess and apply appropriate policies and measures to address the key drivers of deforestation and forest degradation, notably agricultural expansion (cocoa and palm oil), over-harvesting, wood fuel consumption and mining in forest reserves.[26] The Ghana REDD-plus mainly targets the participation of vulnerable small land holders in interventions for climate change mitigation and enhancement of carbon stocks and in exchange for carbon credit related incentives and co-benefits of sustainable development.

The revised Ghana Forest and Wildlife Policy's (2012) commitment to safeguard the integrity of the forest estate finds consistency with Forest Investments Programme's (FIP) focus of supporting transformational change towards meeting Ghana's REDD-plus objectives. Nonetheless, FIP recognizes fundamental challenges which is described as addressing "the relatively weak impact of the previous policy compared to other forestry laws and customary norms that directly or indirectly inform questions of tree ownership, user rights, and management." For both FWP (2012) and FIP the over-arching challenges are the regulatory and legislative framework, forest fiscal regime and incentive structure respectively.

**Interaction with resource owners**

The Forestry Commission Act, 1999 (Act 571), makes the FC a centralized body. As such, its constituent District level operations report directly to the HQ through the regions. Civil society considers FC operations to be largely governed by command and control approaches that restrict forest access. They also consider state vesting of lands with little consultation on forest management and regulation and conservation to constitute alienation from Chiefs' ownership and subjects' use rights[27] The Timber Resource Management Act is limited in this respect, in that it does not address ownership and management rights of land owners which are contested by civil society. Though the Act provided for consultation of land owners and communities in timber resource allocation procedures, it did not recognize farmers' tree tenure rights in off-reserves, characterized by mosaic landscapes of agriculture, forest remnants and other multiple

[26]Ghana Government, "Readiness Preparation Proposal: Ghana." Submitted to Forest Carbon Partnership Facility (FCPF), December, 2010
[27] Forest Watch Ghana, "Forest Governance in Ghana: An NGO perspective.", 2006

land uses. Neither did it provide for compensation for crops destroyed by timber operators. Further, The Timber Resources Management (Amendment) Act, criminalizes farmers' use of off-reserve timber for their own use.

In contrast to the roles and mandate of FC as a centralized body, local governments, established under the Local Government Act of 1994 (Act 462), do not exercise legal mandate over forest use and conservation. The Metropolitan, Municipal and District Assembly (MMDA) structures- Area Councils and Unit Committees are analyzed to be remote from centres of political influence and do not benefit meaningfully from local revenues collected. [28] Thus, these structures do not allow adequate engagement of social institutions. Civil society has again observed that MMDA' share of forest benefits (royalties) is non-transparently appropriated and does not trickle down to household levels.

Abstracting from the legal status of FC as specified in Act 571, or considering the status of the constituent structures with FC prior to the coming into force of Act 571, FC should primarily be a district-based organization. This is illustrated in Figure 4.1 where at the bottom of the FC organizational structure, the entire forest administration is made to demonstrate effective management of forest users' rights in accordance with FC's own service Charter (a promise of good governance in service delivery to forest stakeholders), on the one part; and regulate resource use and conservation by incentives. On the other hand, the contrasting Acts together present a case where the allocation of 25% of what FC collects to MM DAs is in line with FC's implementation of policies to ensure transparent governance of forest and wildlife resources as guided by the development goal of promoting and developing mechanisms for transparent governance, equity sharing and peoples participation in forest and wildlife resource management, but FC has no mandate of governing the use of MMDAs' share of royalties. Seemingly to correct this, L.I. 1721 provides for the industry to pay an additional 5% of stumpage under SRAs as their social responsibility towards forest communities. But this carries transaction costs for the parties to SRAs, is ineffective and far removed from addressing the issue of inequitable benefit distribution and its accompanying disincentive for supporting sustainable forest management and conservation.

**Interaction with the formal industry: The fiscal regime context**

The FWP-12 calls for a shift from "timberization" but this does not make pursuing economic timber pricing irrelevant. Timber Resources Management Act, 1997, Act 547 specifies that only holders of Timber Utilization Contracts (TUCs)) can exercise timber rights. Its Regulations L.I. 1721 also require holders of TUCs to pay Timber Rights Fee (TRF). TRFs were a major component of FC's IGF in the mid-2000s as a result of forest fiscal reforms. They contributed through plantation timber sales of about 50% of IGF in 2007[29]. According to FC's Annual Reports, timber allocation has reverted to administrative allocation because of what the reports describe as cumbersome parliamentary procedures.

[28] Brown, D. and Amanor, K. (2006), "Informing the policy process: Decentralisation and environmental democracy in Ghana." Scientific Report. DFID Project Number R8258

[29] Birikorang, 2008

Reconstruction Export levies of 6 per cent on lumber export and 2 per cent on veneer and plywood exports were introduced in 2002 and removed in 2007 under the forest fiscal reform on the grounds of their potential anti-growth impacts. The tax incidence was expected to be shifted to the harvest level through payment of TRFs. A World Bank study observes that an industry lobby has prevented this.[30] The current position constitutes a failure to compensate the removal of the resource rent embodied in the reconstruction export levy, making the political will to implement fiscal reforms an issue. The annual average resource rent foregone in the period 2007-12 as a result of this policy failure is estimated at US$ 5.2 million or US$16 $m^{-3}$ or US$ 6$m^{-3}$ in round wood equivalent. [31] This is also equivalent to about 1.5 times the average stumpage collected in 2010 and 2011.

Concurrently, FC had failed to adjust stumpage fees in accordance with Regulations L.I. 1649 Regulations 22 (2) which requires FC to adjust fees quarterly in line with timber FOB prices. The State lost annually in real terms over the period 2003-2012 an amount of US$2million through failure to comply with fob-indexing and inflation[32]. The annual sum of US$2 million is a subsidy to the wood industry, 50 percent of which constitutes one-third of resource owners' income forgone. Getting the policy right will consist of targeting specific future market development trends in lesser used and other emerging timber species and aligning both the long term fiscal regime and the regulatory framework to the market development opportunities. Performance of the FC in the fiscal context cannot pass without questioning the degree of autonomy that the FC exercises, which is observed to be limited by the very Act that established it.[33]

The impacts of how the regulatory framework currently operates and the legislative environment presented above are the following:

- The regulatory framework and accompanying legislation are known to constitute a crowding out of chiefs, as land owners, some of whom may turn a blind eye to illegalities. Much of the illegal logging in the informal sector has to do with the disconnect between top-decision making and engagement of stakeholders at the bottom of the forest administration.
- A number of indicators analyzed from earlier studies, legal provisions and current sector performance suggests that the forest incentive structure, promoted by the current regulatory framework and legislation, works against climate change mitigation objectives as outlined in the Government's FIP. The formal industry draws the biggest resource rent (US$4 $m^{-3}$) and receives real subsidy in the same amount, while landowners receive

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**30** Independent Evaluation Group/World Bank, "Project performance assessment report: Ghana natural resources and environmental governance;" June 30, 2014]

31 The estimate is based on a total annual average export volume of lumber (48 per cent) and veneer/plywood (52 per cent) of 330,500 $m^3$, weighted export price of EUR 340 (Exchange rate (EUR1 = US$1.2), weighted export levy of 4 per cent and round wood recovery of 40 per cent

32 Birikorang, G.,,"Why don't we make the loggers pay?-Stumpage value and policy failure in Ghana's forest sector; Country Report; IIED, February 2015.

33 MLNR "Ghana Forest Investment Program (FIP), 2012).

about 50 per cent of the private sector's share and the FC twice the landowners' share. The informal sector, as households, gain through illegal harvesting about US$13 $m^{-3}$ compared to the US$0.2 $m^{-3}$ in SRA (Table 4.1).

**Table 4.1: Forest incentive structure**

| | Gross value of benefit, roundwood, US$$m^{-3}$ of roundwood (#) | Source of data |
|---|---|---|
| **1. Engagement with the informal sector:-** | | |
| Illegal chain Saw Operators | 6.60 | Source as quoted in footnote[34] |
| Rural lumber head loader | 4.20 | |
| Farmers | 1.80 | |
| SRA | 0.20 | Based on 2010 and 2011 FC Data |
| TOTAL landowners' share of royalties | 1.79 | Based on 2010 and 2011 FC Data |
| *of which MMDAs:* | 1.00 | Based on 2010 and 2011 FC Data |
| **2. FC's share of stumpage and export levies** | 4.00 | Based on 2010 and 2011 FC Data |
| **3. Engagement with the formal sector:-** | | |
| Total subsidy to industry | 8 | As estimated earliar in this section |
| #) NOTE: Transaction costs have not been taken into account | | |

**Dealing with the forest revenue system**

The FIP lists 8 main instruments as forming the forest sector revenue system and suggests that FC and MLNR efforts at engineering a reversal of the inefficiencies in the forest revenue system and move towards meeting the fiscal policy objectives of the forest sector remains a challenge. Ghana's forest sector fiscal regime involves eight main components as provided in Box 4.2.

*Box 4.2: Forest Fiscal Instruments*

1. **Pre-harvest level**
    - Timber Rights Fee
    - Contract Area Rent (concession rent)
2. **Harvest level**

[34] Birikorang, G., Marfo, E., Obiri-Darko, B. and Boateng, K. Scenario and cost benefit analysis of proposed policy options for the supply of legal timber to the domestic market, 2014.

| |
|---|
| • Stumpage Fees<br>**3. Post-harvest Level**<br>• 2% Export Levy<br>• 1% Export Levy<br>• Air-dried Lumber Export<br>**4. Government taxes**<br>• Corporate Tax<br>• Import Tariffs. |

*Source: FIP*

Leakage in stumpage and timber laundering occurs.[35] This makes it necessary to impose post-harvest levies. Post-harvest taxes are not uncommon in West and Central African timber producing countries.[36] They are all geared to capturing resource rents. Air dried levies were primarily to encourage kiln drying. The levies in the initial years significantly supported the National Plantation Development Fund. As kiln drying progressively increased, air-dried levies became insignificant. Concession rents are not taxes. They are simply land rents and serve as incomes for land owners. They have been in existence under the Stool Lands Act and are very insignificant. Together with stumpage fees, they form part of the rules of the game in any defined TUC area that attracts the pre-harvest Timber Rights Fee. Corporate taxes are more of taxes on business results and are more important to investment decisions across sectors rather than having any significant impact on the forest fiscal system which targets economic rent.[37] If RMSC's capacity to fully install and manage digitized forest inventory data is established, it would help solve many of these problems.

**Cost of the regulator**

*FC Headquarters costs*

The fiscal regime is essentially about resource transfer- its capture and distribution. Regulations 1721 (3) clearly defines stumpage fee in the following terms: *For the purpose of the Act and these Regulations, stumpage fee represents royalties which provide a basic return to the landowner and contributes to the cost of forest management and timber regulation." Thus, where FC spends more, there is less for land owner on the one hand and less willingness to pay on industry's part, particularly under rising transaction costs imposed by the Regulator.*

FC's costs can be a threat to a sustainable and supportive fiscal regime. FC constituent operational entities are considered to be primarily district-based operations. Undue institutional

[35] Birikorang, 2015, op cit

[36] Birikorang, G., Hansen, C.P., and Treue, T., "Review of the current taxation system relevant to the forest sector in Ghana; VLTP, Forestry Commission, February, 2007.

[37] In the early 2000s, the 10 leading timber exporters rushed to register for Free Zone Status which accorded them 10-year income tax holiday. This happened outside the forestry sector, but made the investors find it attractive to stay in the timber business during the period.

level dominance and an accompanying competing claim for resources can be a potential threat to operational level efficacy and effectiveness.

*Cost ineffectiveness in regulating off-reserve timber*

For FC, the cost of regulating off-reserve timber compared with stumpage collected does not merit a continuation of that function. Depletion of off-reserve forest resources is widely reported and the cost of off reserve timber regulation was estimated at US$2m$^{-3}$ in 2005.[38] RMSC's Timber Information Form (TIF) data show falling harvest levels and suggest depletion of high market value species. For the period 2010-11, the weighted average stumpage amounted to US$4 m$^{-3}$. These developments suggest off-reserve weighted average stumpage collection would be closer to US$2 m$^{-3}$ than to the national average. These are also occurring against the background of civil society's perspective that off-reserve stumpage retention by FC is a "rogue tax" (Civic Response communication). Devolution of off reserve timber regulation to local governments has been an issue since 1999.

**Failures of the Forestry Development Master Plan (1996-2020)**

FIP throws challenge to the Forestry Development Master Plan (MLF, 1996) now under review to set out clearly action plans to effectively tackle the issue of deforestation and forest degradation. The Plan basically reiterated the emphasis of the 1994 FWP on forest management and conservation, focusing strategies on improved efficiency of the wood industry through new technologies and retooling, participatory forest management capacity building of public institutions and research. With respect to participatory forestry, the Plan was influenced by the Ministry of Lands and Forestry's *1995 Interim Measures to Control Illegal Timber Harvesting Outside Forest Reserves* which sought to shift practices from forest clearance to 'sustainable management.' Farmers' tree tenure and compensation rights were formally recognized. Pre-and post-felling inspections by farmers with representatives of the stool and unit committees had to be carried out, and log conveyance certificates only issued when any claims for compensation for crop or infrastructural damage had been settled. To date, the thematic "low volume-high value" in forest utilization has not been achieved largely on account of inappropriate timber pricing and the accompanying lack of private sector incentive to innovate, while participatory forestry has remained fixated to benefit sharing rather than being driven by recognition of ownership and management rights of landowners, contributing to the generation of incentives for forest clearance and engagement in illegal logging.

**The issue of political economy**

Overall, the complexity of the incentive structure is engulfed in the political economy, characterized by strong industry lobby that keeps industry subsidy in place and frustrates policy reform at the national level, the elite capture characterizing the inequitable benefit distribution of forest benefit, rent seeking by public officials and the will to survive among forest communities at the local level. The FC institution faces the special challenge of reversing inequity in forest sector. The FIP considers Act 571 as not creating a strong and sufficiently autonomous

[38] Birikorang et. al., 2007, op cit

institution to ensure the implementation of the provisions of the legislation. Some authors have also contended that with the coming into force of Act 571, the FC Board was later to be developed into both a powerful entity which perpetuated timber interests to the neglect of developing collaborative approaches to forest management, resolving forest conflicts and ensuring equitable forest benefit distribution[39]. According to the MLNR, it has secured an FC Board that commits to translating political decisions into strategic directions at the FC level. Notably, though, the political economy and the degree of equity it provides will still shape the future outcome of the revised FWP (2012).

[39] Shields D. & Hobley, M. " Review of DFID Support to the Forestry Sector in Ghana;" November 2006

## 5.0 Public Financial Management and Budget Cycle

This section discusses the Forestry Commission's budget cycle within the context of public financial management in Ghana. In particular, the section reviews all the phases of the budget cycle, assesses the credibility of the budgets as well as the quality of Public Financial Management (PFM) of the FC and the binding constraints in forestry sector expenditure and financial management. The section also takes a brief shot at the consistency of expenditure with stated sector priorities and budget commitment as well as the linkage of sector priorities to the national strategic planning process and the allocation of budget to the core functions of the FC as set out in the MTEF, sector plans and the national priorities.

### 5.1 Public Financial Management

Over the years, a series of public financial management (PFM) initiatives and programmes have been implemented to improve the performance and management of public funds. A number of existing PFM performance reports notably the External Review of the Public Finance Management (World Bank 2010) and Public Expenditure and Financial Accountability (PEFA, Ecorys Macro Group 2010) reports of 2010 confirmed that Ghana enjoys a well-grounded and formulated legal and regulatory framework for PFM. Key amongst the established laws and regulations that have been enacted to improve the institutional framework for PFM over the last decade are the following: Financial Administration Act (FAA, 2003), Financial Administration Regulations (FAR), 2004), Public Procurement Act (2003), Audit Service Act (2000), Internal Audit Agency Act (2003), Internal Revenue Act (2000) and its successor - the Ghana Revenue Authority Act (2009).

There are also several other ongoing reforms and initiatives that should contribute to improving the budget preparation processes and its management in order to ensure efficiency in resource allocation within MDA. In 2009, the Government through MOF launched a new generation of public financial management reforms, with a view to improving budget execution and thus budget credibility, severely affected by large overall budget deviations, compositional variances, and arrears accumulation. These reforms were anchored around the Ghana Integrated Financial Management Information Systems (GIFMIS) which was introduced in the year. The overarching objectives of GIFMIS are to improve budget "comprehensiveness and transparency consolidate cash management, monitor and control outstanding commitments and payroll management[40]. The GIFMIS is also expected to strengthening the Medium Term Expenditure Framework (MTEF) of government and introduce a program-based budgeting system that supports improved fiscal management and service delivery outcomes across sectors.

[40] GIFMIS includes several modules: accounts receivable, accounts payable, general ledger, purchasing, cash management. As of beginning of 2015, the general ledger and purchasing modules have been installed in all 23 ministries in Accra covering only Consolidated Fund transitions. The next phases of the project involve including IGF, Statutory Funds and DP funded operations and rolling-out the system to MMDA. As part of the project, a new chart of accounts has been introduced and has been adopted by all MDA and is progressively being adopted by MMDA.

In this regard, the Government made a decision to move from the current Activity Based Budgeting to Programme Based Budgeting (PBB). The implementation of the PBB began in 2013 in preparation of 2014 budget. In addition to these, government has recently undertaken a number of expenditure rationalization priority measures summarized in the Box 5.1.

*Box 5.1: Recent expenditure rationalization priority measures*

- Deepen the implementation of GIFMIS through completion of the budget modules and roll-out to all MDA and MMDA;
- Establish a unified treasury account;
- Rationalize wage bill, pensions, gratuities, and social security payments;
- Rationalize public sector staff in MDA – which elements include the ongoing payroll upgrade and installation of new HRMS program for Office of Head of Civil Service (OHCS) and Public Services Commission (PSC);
- Restructure DACF and other Statutory Funds to reduce rigidities in the budget and aligning them to priority programs; and
- Continue the policy of regular adjustment of fuel and utility prices to keep expenditure on subsidy within budget constraints.

Despite the reforms that are underway in public expenditure management, which seeks to achieve three primary objectives: fiscal discipline, strategic allocation of resources and efficient service delivery, the implementation at government ministries, department and agencies (MDAs) is highly fragmented which makes it difficult to analyze the allocation of public resources. For instance, GoG budget covers only the Consolidated Fund and the transfers from this Fund to the earmarked funds. In 2014, the five major earmarked funds which include District Assemblies Common Fund, Ghana Education Trust Fund, National Health Insurance Fund, Road Fund, and Petroleum Funds, accounted for about 22% of total Government non-interest current expenditures. The financial statements that show the executed budget prepared by the Controller and Accountant General Department (CAGD) only include the accounts of the Consolidated Fund. In the same vein, the Ghana Auditor General (GAG) report on the Accounts of the Public Sector only covers the Consolidated Fund. Moreover, while the GAG prepares separate audit reports for the statutory funds, MDA and MMDA, there is no consolidated account of the public sector or of the general government.

Although at the governmental level, progress in public expenditure management has been evidenced by substantial improvements of national systems in the past years, major challenges in the areas of budget formulation, execution and auditing remain. This is because, whilst the tasks of establishing regulatory frameworks and installing technology are largely completed, implementation and making systems work proves a greater challenge, often resulting in expenditure overruns, weak budget credibility and malfeasance/corruptions, as well as significant differences between approved budgets and actual budget execution. It is documented that low budget credibility is caused by both poorly managed budgeting processes and by not using the budget as the guide for taking commitment and expenditure decisions.

The FC and MLNR are no exception to the loopholes in the public expenditure management, despite the progress in the respective agencies over the years. The budget of the FC in particular is funded by the GoG Consolidated Fund, Internally Generated Funds (IGF), donors (project funding: Sector Budget Support (SBS) and NREG) and Plantation Development Grants.

It is also important to note that FC has IGFs which help finance most of their operations. Besides the personal emoluments or compensation of employees that are paid from the consolidated funds, IGFs help finance most of their operations. In other words, goods and services and administration are largely paid out of the IGFs in accordance with the MDA Retentions Act 735 of 2007, and the appropriation bill. This implies that although the GIFMIS has been rolled out at MLNR and FC its implementation has not been effective as IGF and donor funding have not yet been integrated onto the system, and thus most expenditure lines are still done outside GIFMIS. Even where it is in use, long delays between approval and releases of funds, as was articulated by both MLNR and FC, present an enormous challenge to effectively operationalise the system.

**5.2 Consistency of Expenditure with Sector Priorities**

Another issue with PFM in FC is the alignment or the consistency of expenditures with stated sector priorities and budget commitment as well as the linkage of sector priorities to the national strategic planning process. Even though sector budget support (SBS) for NREG program is offered as un-earmarked SBS, GoG decided to ring-fence the SBS-NREG for being specifically used by the MDAs involved in the NREG program, in particular the FC, the Minerals Commission and the Environmental Protection Agency in order to allow them to undertake additional activities needed to reach the NREG targets and to finance other priority activities and investments[41]. In addition to the various sector policy objectives, the three agencies have made special annual work plans and budgets for using the SBS-NREG funds, structured according to the objectives of the NREG program. In 2010 the SBS-NREG funded activities were for the first time included in the specific NREG sections of the MDA budgets being part of the official GoG budget. Subsequently, the work plans were replaced by a new planning, budgeting, monitoring and reporting tool, called the Results Framework in 2011, which is a matrix including objectives, outputs, activities, budget per activity, actual expenditure and achievements realised.

However, while expenditure appears largely to be consistent with sector priorities and national strategic objectives, the 2012 ECORYS report suggests that there are discrepancies between the actual releases of SBS-NREG funds to the MDAs on the one hand and the budgets of the annual work plans and results frameworks on the other hand. This situation is often caused by various factors, such as:, (i) administrative delays in transferring funds from MoF to the MDAs, (ii) delayed submission of returns (justification of expenditure) by MDAs to MoF (iii) inadequate motivation of requests for new releases and (iv) too ambitious work plans in view of the implementation capacities of FC and lengthy tendering processes as well as weak linkage

[41] SBS-NREG funds meant for financing FC's work plans are transferred via the MLNR. In 2008 and 2009, MLNR retained part of those funds for doing purchases on behalf of the FC and possibly also for buying some equipment for its own operations. Since 2010 the MLNR does not retain part of the funds meant for the FC, but it gets its own SBS-NREG allocation. (ECORYS 2012 Report)

between sector policy guidelines and national development goals/priorities. For instance, in the FC's Sector-Output matrix (see Appendix 13), a broader sector objective of promoting the development of viable forest is to eliminate illegal logging and chainsaw operators. However, the specific objective which suggests "Purpose –Output" linkage of developing strategic national plan to address illegal logging and chainsaw activities has not been achieved, while illegal chainsaw operators continue to cause havoc to the forest. This is because it is either this objective is overly ambitious to be achieved or FC lacks the capacity to implement it or is not properly aligned with the national policy development framework.

### 5.3 Budget Cycle

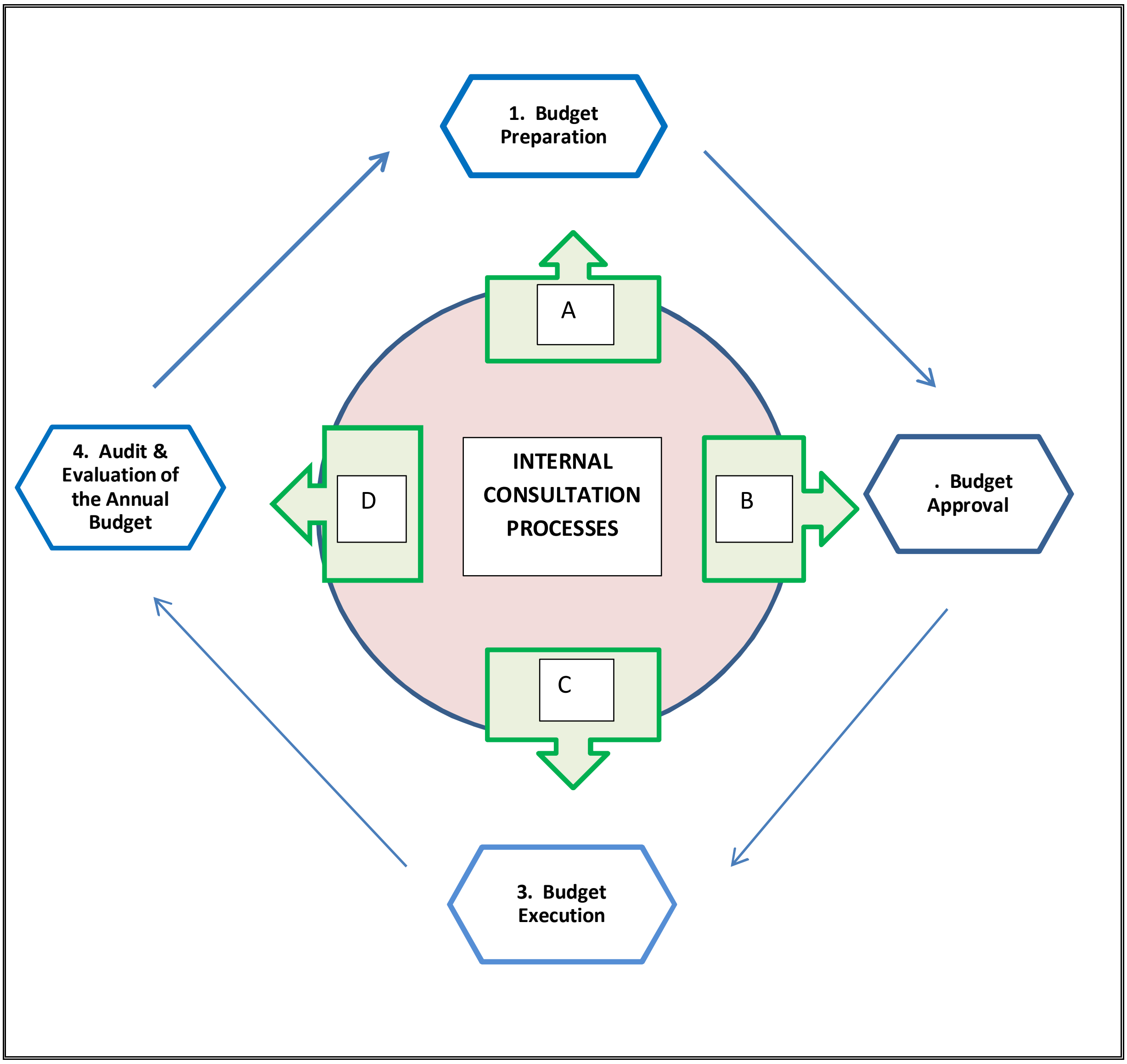
The budget cycle is the routine and logical process through which both authorizing and spending entities follow in preparing budgets, granting and receiving authorization to spend, spending by budget executing entities, submitting budget executing entities to independent audit and evaluation of budget appropriation and feeding back the results of audit and evaluation to inform the next budget period. Best practice requires that entities who exercise key responsibilities at respective phases of the cycle sufficiently consult outcomes of the preceding phase. Both planning and budget execution staff must consult stakeholders who will be affected, as targets of their budget outcomes. In any organization, a robust and purposeful budget must involve a two way consultation within the hierarchy of office and at horizontal levels: between and among staff responsible for strategic planning, preparation and costing of activities or outputs, top management and governing entities responsible for strategic direction and political decision-makers. There are no hard and fast rules of the game. It may not be rigid, but the standard of governance is.

GoG's budget process functions in the context of the Medium Term Expenditure Framework (MTEF). This framework is a 3 –year rolling plan of total public expenditure allocated according to government policy priorities and circumscribed by a ceiling on national resource availability. On the one hand, it is a top-down resource allocation mechanism governed by the policy of macroeconomic stability and characterized by fiscal discipline. On the other, it allows budget executing agencies a bottom-up opportunity to determine and assess the cost of their own sector priorities in budgeting. The challenge, however, is the extent to which, and how sector priorities and the volume of activities in the plan period are met by the national ceiling. One advantage of the dual approach is, once the MTEF is determined; sector budgets must be transparent, accountable, predictable and subjected to periodic review within the MTEF scope and context.

The forest sector MTEF is financed through the GoG's Consolidated Fund (CF), IGF and Donor Funding. In managing the state's public finance, and specifically determining resource availability for financing sector expenditures, MoF considers IGF as part of the CF. Thus, in practice, the state of FC's revenue performance and forecasts becomes an issue in MoF's resource allocation plan and Cabinet approval.

The Budget Cycle covers broadly four phases: the budget preparation, approval, execution and audit and evaluation phases as indicated in figure 5.1.

*Figure 5.1: The Budget Cycle and Internal Consultation Processes*




**5.3.1 Budget Preparation: Comprehensiveness and Transparency**

The GoG Annual Budget preparation and execution are predicated on the national macroeconomic framework outlook for the year and a consistent set of government policy priorities stated in the budget. Within the macroeconomic framework, MoF determines total resource availability for financing the budget. Interface between the top-down (national public expenditure management level) and bottom-up (agency level) translates into the following steps in the forest and wildlife sector:

- In line with the national budget calendar, Business Planning Units (BPUs) of FC prepare their draft budgets, based on FC's strategic plans. Operating departments of Divisions make inputs into the divisional budgets. In the case of FSD, District offices submit their budgets to the Regional offices which in turn submit a regional budget to the headquarters. The Corporate Finance Manager assumes the role of putting together the FC's Corporate budget proposal.

- FC management and BPUs meet to collate and review the Commission's budget prior to submission to the MLNR.
- MLNR organizes a budget meeting with FC Divisions to review the sector's budget and subsequently submit a sector budget to MoF
- MoF reviews sector budget and communicates a preliminary sector budget ceiling in budget guidelines to the sector ministry.
- MLNR allocates a budget ceiling to FC which in turn prescribes respective ceilings for each Division. The Divisions also allocate budget ceilings to operating entities under them.
- Budget reviews begin at the various budget planning centers and the results communicated bottom-up to the FC Corporate level and onward transmission to MLNR
- MLNR forwards the revised sector budget to MoF, which reviews the sector budget components and the sector's budget ceiling in light of additional information and informs MLNR on its current budget ceiling.

### 5.4 Budget Cycle Assessment Results

This section analyses the forestry subsector budget cycle processes and execution and the main challenges relating to formulation, execution and auditing of forestry sector expenditure and revenue in the context of overall public financial management. The assessment is based on self-assessment indicator tools adapted from the Public Expenditure and Financial Accountability (PEFA) scoring methodology[42]. The PEFA Public Finance Management (PFM) Performance Measurement Framework is an integrated monitoring framework that allows measurement of country PFM performance over time. It has been developed by the PEFA partners, including the World Bank and International Monetary Fund (IMF) in collaboration with the OECD/DAC Joint Venture on PFM as a tool that provides reliable information on the performance of PFM systems, processes and institutions over time. The key informants from the various divisions were asked to score from the six core dimensions of PFM performance which are outlined in Box 5.1. Out of this, 24 set of high-level indicators that measure the operational performance of the key elements of the PFM systems, processes and institutions of a public or government agents were selected and adapted to suit specific issues of the Ghana forestry sector.

Assessment is based on a 5- point calibration scale, ranging from very favorable, satisfactory to very unfavorable. The scores of selected multi-dimensional indicators, were averaged out under five broad themes within the budget cycle namely budget preparation (reflecting the

[42] This PEFA PFM Performance Measurement Framework – initially issued in June 2005 and revised in 2011 - has been developed as a contribution to the collective efforts of many stakeholders to assess and develop essential PFM systems, by providing a common pool of information for measurement and monitoring of PFM performance progress, and a common platform for dialogue.

comprehensiveness and transparency of the process), budget approval, predictability (reflecting also budget credibility), budget controls, budget execution (rate of deviation from budgeted expenditures/revenue), and audit and evaluation (See Figure 5.2).

| Box 5.1: Six core dimensions of PFM performance |
|---|
| 1. **Credibility of the budget -** The budget is realistic and is implemented as intended<br>2. **Comprehensiveness and transparency** - The budget and the fiscal risk oversight are comprehensive and fiscal and budget information is accessible to the public.<br>3. **Policy-based budgeting -** The budget is prepared with due regard to government policy.<br>4. **Predictability and control in budget execution -** The budget is implemented in an orderly and predictable manner and there are arrangements for the exercise of control and stewardship in the use of public funds.<br>5. **Accounting, recording and reporting –** Adequate records and information are produced, maintained and disseminated to meet decision-making control, management and reporting purposes.<br>6. **External scrutiny and audit -** Arrangements for scrutiny of public finances and follow up by executive are operating.<br>*Culled from the PEFA, 2011* |

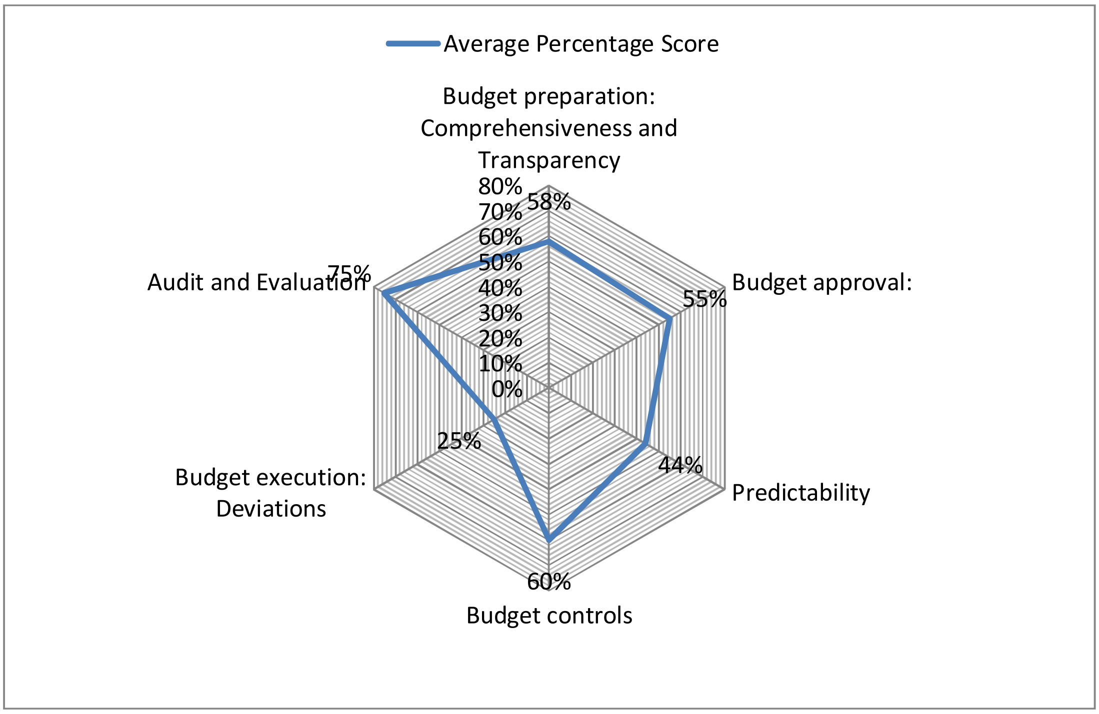
In order to ensure that a low score on one dimension of the indicator does not necessarily undermine the impact of a high score on another dimension of the same indicator, a detailed result of each of the 24 adapted indicators are reported in Table 5.1: In what follows, we discuss the results under each of the five broad themes.

### 5.4.1 Budget Preparation and formulation

The assessment of the budget preparatory/formulation process in the forest sector is based on self-assessment indicators as outlined above. Different experts from FC were asked to respond to the complete assessment indicators which have been attached as appendix 5. The result as shown in Figure 5.2, reveals a slightly above average (58%) performance of this dimension of the budget cycle. The performance of each of the indicators under this dimension however varies considerably. Table 5.1 shows that while public access to key fiscal information scored 55 percent indicating a satisfactory performance, there exists no in-year budget execution reports that are routinely made available to the public through appropriate means, thus scoring a very unfavorable or poor performance of 28%. A very favorable score (70%) was given the extent to which budget formulation carries strategic direction from the FC board. However, orderliness and participation in the annual budget process appears fairly satisfactory (60%) in the forest sector budgeting process as the various units somewhat adhere to a fixed budget calendar within their units.

A major concern regarding budget formulation and preparation is the fact that the budget guidelines issued by MoF although comprehensive and clear, does not reflect ceilings approved for the unit. Indicating a poor or a very unfavorable performance of 38 percent, key informants believe that the situation makes nonsense of the budget preparatory process as budget officers after painstakingly preparing budget for the various items, only to be hugely slashed with no regard to the budget lines.

*Figure 5.2: Assessment of Dimensions of the FC Budget Cycle and Execution*




*Source: Author's calculation*

Based on the provisional sector ceilings communicated to MLNR and subsequently to FC, FC's BPUs have the opportunity to do their detailed costing. The budget exercise at this point of constrained budget, calls for review of objectives and expected outputs, costing and prioritizing related activities and determining possible outcomes of their budget interventions. This presents a challenge to FC's capacity. Moreover, the budget cycle procedures of budget revisions and the effect of significant differences in budget variances dampen motivation of staff to be overly professional as best practice would demand.

Budget ceilings under resource constraints compel the sector to do incremental budgeting. This prevents prioritization of activities and causes a missing link between budget achievements and government priorities. In 2009, one study observed an over-focus on controlling inputs as opposed to seeking to improve performance of the sector (Abor, 2009)

Though the FC budget is based on a strategic direction of its Board, the study in consultation with FC Budget teams appreciates the limitation in oversight by the Board over FC's reviewed budget prior to its submission to MLNR.

The MTEF framework and the budget process at this stage fundamentally assumes a certain level of performance achievement by the sector, as the sector allocation mechanism is designed to ensure that FC uses resources in line with its stated objectives and priorities. However, the perspective of FC is that it is required only to report on performance indicators provided under the Ghana Shared Development and Growth Agenda. This requirement presents a challenge to FC, as it leaves little room for directly addressing or making transparent the treatment of drivers of deforestation and forest degradation in its budgets.

### 5.4.2 Budget Approval: Allocation phase of the Budget cycle

This stage is kick-started with MoF finalizing the sector budget estimate and the MTEF document. Based on this the MLNR and FC are invited for a Budget Hearing to conclude on acceptance of the sector's budget and its consistency with the national goals and priorities. MoF subsequently seeks Cabinet approval. This forms part of the parliamentary procedures for approval of the annual budget and the Appropriation Bill supporting it. Budget releases are made to the FC under the Sector budget allocation. These are apportioned to the Divisions through FC's strategic directions towards the achievement of sector objectives. The Divisions in turn notify operating units to submit expenditure proposals for appropriations and are accordingly resourced within the level of their own budget ceilings. This process according to respondents is an above average or satisfactory performance as an average score of 55% or a B was assigned to the timeliness budget approval by the mandated bodies. However, a number of the respondents believe the process is too long and at times confusing.

With the implementation of the GIFMIS, one major problem that is being observed is that when the warrant for payment is issued by the CAGD, it takes a long time for the BOG to pay because sometimes there are no funds in the Consolidated Funds, and in recent times the BOG in order to run away from being accused of unduely delaying payment return the warrant back to the CAGD. This makes securing the funds more complex by the Ministries

### 5.4.3 Predictability of the Budget

The PEFA assessment framework prescribes that effective execution of the budget, in accordance with the work plans, requires that the spending Ministries, Departments and Agencies (MDAs) receive reliable information on availability of funds within which they can commit expenditure for recurrent and capital inputs. This indicator therefore assesses the extent to which the MoF provides reliable information on the availability of funds to FC and its various units that manage administrative (or program) budget heads. This is needed not only to ensure allocation transparency and medium-term predictability of funds available for planning and budgeting of expenditure programs, but also for the credibility of the budget process. It is acknowledged that predictability for MDAs in the availability of funds is facilitated by effective cash flow planning based on regular and reliable forecasts of cash inflows.

Predictability is the availability of funds for commitment of expenditures and reliable cash flow forecast indicators performed poorly in the forest sector budgeting process, undermining the credibility of the budget process. Figure 5.2 shows a below average performance averaging 44 percent. Concerns of unpredictability of funds and delays in the release of funds for planned projects were rife among all FC's divisions and units constraining their ability to commit to planned expenditure. The Commission is unable to plan and commit expenditure for at least six months in advance in accordance with the budgeted appropriations, leading to weakness in budget execution.

*Table 5.1: Budget Cycle and Execution and Assessment of the Forestry Sector*

| Key Cross-Cutting Features/dimensions | Indicator | Score (%) | Remarks /performance le vel |
|---|---|---|---|
| 1. Public access to key fiscal information | A complete set of documents can be obtained by the public through appropriate means when it is submitted to the MOF | 55 (C) | **Satisfactory /above average** |
| 2. Quality and timeliness of in-year budget reports and financial statement | In-year budget execution reports exist: The reports are routinely made available to the public through appropriate means | 28 (D) | **Poor/very unfavorable** |
| 3. Orderliness and participation in the annual budget process | Existence of and adherence to a fixed budget calendar within the unit | 60 (B) | **Good/satisfactory** |
| 4. Comprehensiveness of information included in budget documentation | Clarity/comprehensiveness of and MOF involvement (and other appropriate agencies) in the guidance on the preparation of budget submissions (budget circular or equivalent) | 45 (C-) | **Below average** |
| 5. Comprehensiveness | Budget formulation carries strategic direction from the FC board | 70 (A-) | **Very good/Favorable** |
| 6. Timely budget approval | *Timely budget approval by the mandated body (within the last three years);* | 55 (C) | **Above average** |
| 7. Comprehensiveness of information included in budget documentation | A comprehensive and clear budget circular is issued to units, which reflects ceilings approved by mandated dept/unit (or equivalent) prior to submission to MOF. | 38 (D) | **Poor/very unfavorable** |
| 8. Predictability in the availability of funds for commitment of expenditures | Forecasts of fiscal aggregates – revenues and expenditure (on the basis of functional/unit classification) are prepared on a rolling annual basis. | 44 (C-) | **Below average/unfavorable** |
| 9.<br>10. Existence of sector strategies with multi-year costing | There exist unit/dept strategies with multi-year costing of recurrent & investment expenditure | 50 (C) | **Average/satisfactory** |
| 11. Effectiveness in expenditure controls | Extra-budgetary expenditure (other than donor funded projects) which is adequately reported and included | 55 (B-) | **Above average performance/satisfactory** |

| | | | |
|---|---|---|---|
| | in fiscal reports. | | |
| 12. Comprehensiveness and transparency | There exists complete income/expenditure information for 90% (value) of donor-funded projects | 70 (A-) | **Very good/favorable** |
| 13. Effectiveness in revenue collection | Control Procedures for revenue accounting is clearly written out | 83 (A) | **Excellent/very favorable** |
| | Controls and procedures for all major revenue by this unit are comprehensive and clear, with strictly limited discretionary powers by staff/management | 84 (A) | **Excellent /very favorable** |
| | All revenue (or IGF) is paid directly into accounts controlled by the mandated body or transfers to the consolidated funds monthly or as stipulated. | 98 (A+) | **Excellent/Distinction/very favorable** |
| 14. Extent to which cash flows are forecast and monitored | A cash flow forecast is prepared for the fiscal year and updated at least quarterly, on the basis of actual cash inflows and outflows. | 54 (C) | **Above average/satisfactory** |
| 15. Predictability in the availability of funds for commitment of expenditures | Unit is able to plan and commit expenditure for at least six months in advance in accordance with the budgeted appropriations. | 30 (D) | **Poor/very unfavorable** |
| 16. Competition, value for money and controls in procurement | All of the key procurement information elements are complete and reliable for mandated body/ units representing 90% of procurement operations (by value) and made available to the public in a timely manner through appropriate means. | 38 (D) | **Poor/very unfavorable** |
| 17. Effectiveness of measures to control expenditures | Comprehensive expenditure commitment controls are in place and effectively limit commitments to actual cash availability and approved budget allocations | 68 (B+) | **Good/favorable** |
| 18. Competition, value for money and controls in procurement | There exist open competitive procurement and clearly defined procedure and rules | 71(A-) | **Very good/favorable** |
| 19. Effectiveness of internal audit and timeliness of execution | Internal audit is operational for the unit, and generally meet professional standards. | 84 (A) | **Excellent /very favorable** |
| | Audit reports adhere to a fixed schedule and are distributed to the audited entity | 78 (A) | **Very good/favorable** |
| | Action by management on internal audit findings is prompt and comprehensive across central government entities | 65 (B+) | **Good/satisfactory** |

| | | | |
|---|---|---|---|
| 20. Effectiveness in budget execution | Annual deviation of actual budget support from the forecast provided: Percentage of direct budget support outturn fallen short of the forecast over the last three years | 25 (D) | **Poor/very unfavorable** |

*Source: Authors' Compilation*

***NB:*** *90-100=A+ (Excellent performance/distinction); 75-89= A (Excellent/very favorable); 70-74=A- (very; good/favorable); 65-69=B+ (good/ satisfactory; 60-64=B (good/satisfactory); 55-59=B- (above average performance); 50-54=C (Average performance; 45-49=C- (below average/unfavorable); 0-44=D (Poor/very unfavorable)*

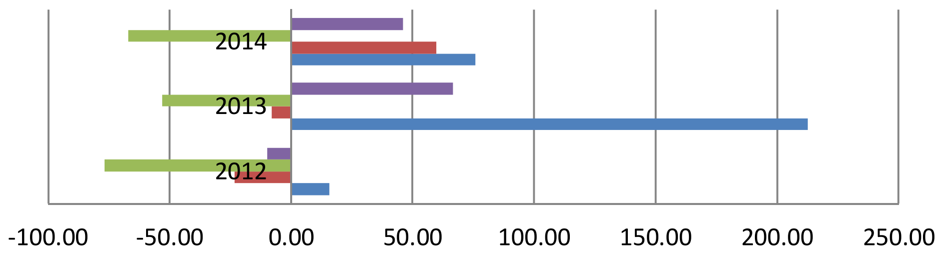
### 5.4.4 Budget execution

From the foregoing, it is clear that budget execution is weak within FC and its various divisions, particularly as the composition of actual expenditure varies considerably from the budgeted expenditure. This, according to PEFA, does not make the budget a useful statement of policy intent. Using both our self-assessment tools and actual measurement of annual deviations, we undertook an empirical assessment of expenditure out-turns against the original budget at a sub-aggregate level[43]. The score for this indicator was the poorest or most unfavorable as (25%) of almost all informants interviewed strongly believe that the budget deviations, particularly of assets over the years have been a major challenge in budget execution for the Commission. This concern is corroborated by empirical assessment of data available in national budget statements and FC annual reports. Figure 5.3 clearly shows that over the last three years expenditure on sub-aggregated levels of FC vary considerably with both positive and negative deviations of actual budgets.

Although total expenditure deviations do not appear dramatic and only negative in 2012, it is well pronounced among assets and compensation expenditures in the opposite directions. Expenditure on compensation has consistently exceeded target and in some cases by over 200 percent. On the other hand, expenditure outturns on assets that matter most for FC to be able to undertake forest related projects has substantially and consistently witnessed negative wide variations, averaging over 65 percent per annum.

*Figure 5.3: Percentage Deviation between Actual and Budgeted Revenues*

[43] Variance or deviation is calculated as the weighted average deviation between actual and originally budgeted expenditure calculated as a percentage of budgeted expenditure on the basis of administrative or functional classification, using the absolute value of deviation




| | 2012 | 2013 | 2014 |
|---|---|---|---|
| TOTAL Exp | -9.94 | 66.68 | 45.97 |
| ASSETS | -76.86 | -53.06 | -67.15 |
| GOODS & SERVICES | -23.13 | -7.94 | 59.77 |
| COMPENSATION | 15.67 | 212.58 | 75.91 |

*Source: compiled with data from FC Annual reports (2012-2013)*

Several issues emanate from the poor budgets execution. As already discussed, quite apart from the ceilings imposed by MoF which as noted earlier has no regards to the planned project outlines and often far below the budgeted, the releases for Assets are often far lower than the ceilings or allocations.

For some of the Divisions such as the FSD, poor budget execution leads to poor confidence in the Divisions. Discussions with stakeholders suggested that, due to limited budgets, shortfalls and untimely release of funds, FSD operations, including plantation development programmes has suffered from a drying up of funds or their late arrivals to defraying claims of communities for work done. This has generated a lack of confidence and trust in the FC at district levels. Forward planning of activities has suffered as a result. Some District Managers are compelled to make private arrangements towards financing of public activities. Cost escalations of activities are also experienced through delays and shortfalls in budget releases. Loss of priorities in spending occurs, as operational staff lack capacity to determine optimal spending in any given quarter.

### 5.4.5 Auditing and evaluation

Expenditure controls and an effective internal audit control system exist in FC, although challenges of implementation of audit reports remain. The Audit Service Act of 2000 establishes The Audit Report Implementation Committees (ARIC) in MDA and MMDA to implement the Ghana Auditor General (GAG)'s recommendation. Moreover, in support of implementing the various PFM reforms, the re-invigoration of external audit oversight mechanisms is expected to strengthen FC accountability framework. The audited Financial Statements (FS) of the FC for the years 2008 to 2013 were available for review. Funds received from the GoG are broken down in terms of GoG subvention, SBS-NREG and Plantation Development Grants. The consultant also received copies of the Management Letters of the auditors as regards the audit reports between the periods specified above.

The assessment of the audit reports and Management Letters reveals a number of shortcomings with the implementation of public financial regulations, despite scoring 75% on the self-assessment score sheet in Figure 5.2. Although some of the recommendations arising out of the auditor's report may have been addressed, the following issues keep repeating themselves year after year in management letters:

- Nonpayment of indebtedness by trade debtors and timber contractors: the implication is that the debts are long overdue which affect FC and its stakeholders liquidity position thereby depriving it of revenue for plantation development. This is as a result of lack of effective debt collection procedures. One reason why some contractors do not pay their indebtedness to FC is because the Act 547 does not compel them to pay after the convention from TUC to lease.
- Some accounting staff of the FC and its Divisions do not have adequate understanding of double-entry bookkeeping thereby delaying the preparation of accounts for auditing.
- Ineffective exercise of control on the release and retirement of accountable imprest given to staff to undertake official duties
- Outdated and non-economic fees which are not reviewed constantly.
- Communication gap between the human resource department and the finance department which causes delays in removing ghost names –retirees, deceased staff and resignees.
- Slow implementation of internal and external auditors' recommendations.

## 6.0 Key Features of Expenditure

This section of the report analyses the expenditure trends of the MLNR and the FC, paying particular attention to the composition of recurrent expenditure (personal emoluments, general goods and services) and investment expenditure assets both at the sector and divisional - (TIDD, FSD, WD, WITC, RMSC) levels. The sector also analyses the trends in planned, budgets and actual expenditure as well as their variances where possible. Efforts are also made to infer the implications of the large recurrent budget expenditure on capital spending.

### 6.1 Expenditure trends of MLNR

The components of expenditure by the Ministry can mainly be classified into three - goods and services, assets and personal emoluments. Data from the Ministry permits us to look at these expenditure based on planned budget[44], approved budget[45] and actual outturns. Total actual expenditure of the Ministry which includes expenditure on goods and services, assets and personnel emoluments has increased by about eight fold from about GH¢18.7 million in 2008 to about GH¢ 164 million in 2014. The situation appears to be the same when one looks at the expenditure of the Ministry in relation to overall government expenditure and agriculture GDP.

*Table 6.1: Planned, budgeted and actual expenditure of MLNR, 2008-2014(in million GH)*

| | Goods and Services | Assets | PE | Total |
|---|---|---|---|---|

[44] This is the budget which the Ministry require to undertake its activities for the Year

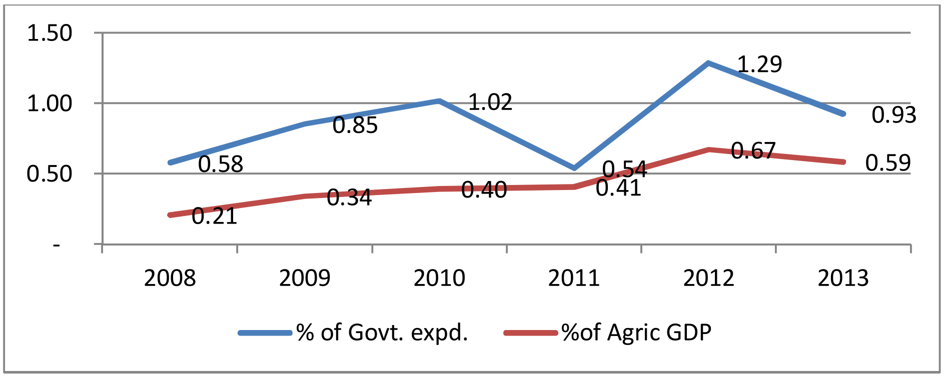
[45] This the budget approved by the Ministry of Finance

| Year | Planned | Budget | Actual | Planned | Budget | Actual | Budget | Actual | Budget | Actual |
|---|---|---|---|---|---|---|---|---|---|---|
| **2008** | 64.6 | 24.7 | 9.8 | 6.9 | 22.5 | 4.8 | 11.6 | 4.1 | 58.8 | 18.7 |
| **2009** | 31.7 | 38.7 | 19.0 | 39.4 | 30.7 | 1.8 | 11.1 | 18.2 | 80.5 | 38.9 |
| **2010** | 53.7 | 46.4 | 21.5 | 61.7 | 14.5 | 6.0 | 32.8 | 23.6 | 93.6 | 51.0 |
| **2011** | 82.9 | 25.4 | 29.1 | 57.8 | 34.2 | 3.3 | 33.8 | 25.8 | 93.3 | 58.2 |
| **2012** | 73.0 | 90.3 | 41.1 | 76.1 | 50.1 | 9.1 | 43.7 | 62.1 | 184.1 | 112.3 |
| **2013** | 158.1 | 147.0 | 40.4 | 82.5 | 35.7 | 6.8 | 43.7 | 69.8 | 226.4 | 117.0 |
| **2014** | 149.5 | 140.1 | 84.2 | 142.8 | 61.0 | 7.0 | 78.5 | 72.9 | 279.7 | 164.0 |

*Source: Budget Division, MLNR*

As indicate in Figure 6.1, the overall actual expenditure of the Ministry as a share of total government expenditure and agriculture GDP has generally increased except in 2011 where a considerable reduction in the share of government experienced was observed.

*Figure 6.1: Expenditure by MLNR*




*Source: Compiled with data from GSS and MoF*

The MLNR has some challenges in undertaking all its expenditure commitments largely as a result of shortfalls in actual expenditures. Overall, planned budgeted expenditure for goods and services and assets has been greater than approved budgeted figure for all the years under consideration while the actual budgetary outturn has been less than the approved budgeted values. Over the period under consideration (2008-2014), the variance between planned budget and approved budgeted figures and that between approved budgeted figures and actual outturn for goods and services and assets amounted to about GH¢115.7 million and 118.7 million respectively. This is equivalent to about 41.9 percent and 39.3 percent of the total approved budget for the period. The large variance in approved budget amount and actual outturn could imply that many of the activities of the Ministry nay not be undertaken.

With regards to emoluments, between 2008 and 2014, the actual payment of emoluments exceeded budgeted figures by about GH¢43.1 million which is about 37.2 % of the budgeted amount for emolument for the period. This is largely due to the introduction of the Single Spine Salary Structure that was meant to rationalize salaries but ended up increasing salaries by a wide margin. The large recurrent (personal emolument and goods and service) expenditure has got serious implication on investments. Over the period under consideration, personal emolument has constituted about 45.5 percent of the actual expenditure, goods and services has constituted about 45.1 percent while assets constituted only about 9.4 percent.

### 6.2 Overview of Forest Expenditure

Like many other public institutions, the FC undertakes various expenditure in the course of implementing programmes and projects that enables it to achieve its set objectives. Under the sector's policy and institutional reforms initiated in 2003, it was estimated that the FC would need an annual total budget of approximately US$19 million to undertake its activities. Details of the expenditures is presented as table 6.2.

*Table 6.2: FC Real Recurrent Budget Requirement for the Exercise of a "Full Mandate"(US$)*

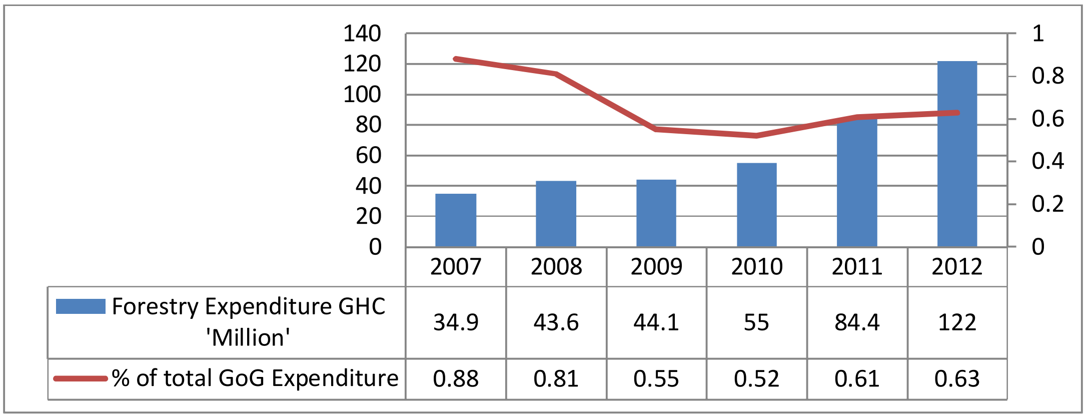
| | Actual 2014 Spending | Total Budget to fully implement mandate | % of *full mandate* budget | % of *full mandate* budget financed in 2014 |
|---|---|---|---|---|
| Forest Service (incl. plantation devt.) | 3,140,396 | 9,508,463 | 59 | 33 |
| Wildlife | 511,018 | 3,223,214 | 20 | 16 |
| TIDD | 938,731 | 2,923,889 | 18 | 32 |
| WITC | 124,511 | 322,778 | 2 | 39 |
| RMSC | 389,717 | 254,111 | 2 | 153 |
| Total, Operations | 5,104,373 | 16,232,455 | 100 | 31 |
| H'Quarters | Not available | 1,362,544.82 | | |
| **Total budget** | | 17,594,999.41 | | |

Source: Finance and Administration Department, Forestry Commission, "Self-Financing of the Forestry Commission by 2005: Review of scenarios, 2003

These estimates were based on a number of assumptions, viz (a) that improving governance and performance FC was key to improving the financial status of FC and, consequently, the achievement of sector and broader development objectives, (b) improving governance and performance would require continued donor supports and (c) that the effective performance of FC's legal functions would depend on reimbursing FC for the delivery of non-revenue generating environmental conservation and protection services. Under these assumptions, continued donor support was to contribute 45 per cent of FC's budget. The relative importance of GoG and IGF components would then depend on the degree of reforms attained on the fiscal side and volume of environmental conservation and protection services, as well as annual area of new plantation development achieved.

Though there has been a steady increase in annual forestry expenditure over the years, annual expenditures for FC operations by 2014 were just about one-third of the 'full mandate" budget requirement. Notably too, the percentage of forestry expenditure to total national expenditure has declined. Specifically, over the period 2007 to 2012, the annual forest spending relative to total public expenditure has experienced a negative annual growth rate of 5.1 percent, declining from 0.88 percent to 0.63 percent (Figure 6.2).

*Figure 6.2: Annual Forest Expenditure*




*Source: FC Annual Reports and CAGD Annual Reports (2007-2014)*

A disaggregation of the annual forestry expenditure shows the following expenditure types: personal emoluments, administrative and general expenses, service activity, provision for depreciation and doubtful debts and project expenses. Service activity expenses, personal emoluments and Administrative and General expenses constitute the largest share of expenditure.

*Table 6.3: Disaggregation of the annual forestry expenditure in Percentages (2007 to 2012 (in GH¢)*

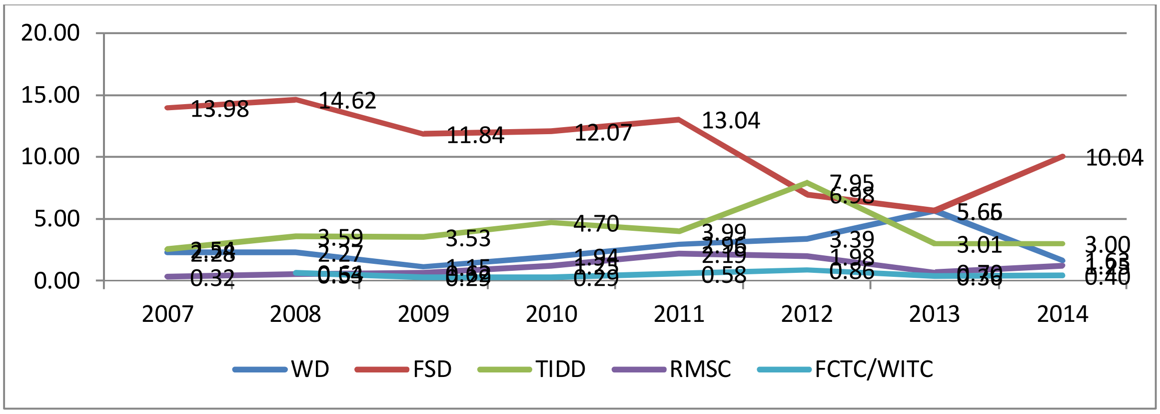
| Expenditure | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| **Personal Emoluments** | 16,930,063 | 21,154,365 | 22,622,826 | 26,076,466 | 62,069,716 | 46,032,576 |
| **Administrative and General Expenses** | 4,234,381 | 4,927,590 | 7,998,434 | 13,397,324 | 17,974,191 | 14,521,727 |
| **Service Activity expenses** | 17,864,117 | 15,759,589 | 22,727,690 | 37,479,377 | 27,791,852 | 20,099,546 |
| **Provision for depreciation/doubtful debts** | 1,152,674 | 1,558,873 | 1,586,260 | 7,309,384 | 4,572,120 | 4,353,062 |
| **Project expenses** | 3,369,683 | 674,217 | 17,076 | 93,184 | 9,590,351 | 8,593,544 |
| **Total** | **43,550,918** | **44,074,634** | **54,952,286** | **84,355,735** | **121,998,230** | 93,591,455 |

*Source: Forestry Commission, 2007-2014*

Personal emoluments have been the major driver of expenditure in the FC. The wage bill for the sector increased from 33.5 percent of total FC expenditure to about 51 percent in 2012. The rapid increase has largely been attributed to the introduction in 2007 of a new salary structure (effective January 2010) which sought to rationalize public sector salary administration (known as single spine salary structure). Proportion of Expenditure on Service Activity however declined sharply from about 40 percent to 22.9 percent over the same period (Table 6.3).

Forest Commission's expenditure is largely driven by expenditures of the FSD as between 2008 and 2014 about 55% of all expenditures by the five main Divisions was made by the FSD followed by the TIDD with a share of about 22% and the WD with a share of about 15%. The RMSC and FCTC/WITC recorded 6.3% and 2.5% of the total expenditure made by the five Divisions over the period 2008-2014.

*Figure 6.3: Forest expenditure by Divisions*




*Source: Compiled with data from the Divisions and Centers*

One notable observation is that expenditure by the FSD has generally decreased especially after 2011 while that of the TIDD has increased marginally together with that of WD over the same period (Figure 6.3). The RMSC and FCTC/WITC have recorded considerably stable expenditure shares over the period.

One major issue that makes it difficult for the FC to achieve its objective is the budgeted expenditure that is always less than actuals. For the three years that complete data on actual and budgeted expenditure by the five Divisions are available, the budgeted expenditure exceeded the actual by about GH¢13 million. It is worth to note that the budget expenditure being discussed here is not the amount that the FC needs to undertake its task but rather the ceiling that has been agreed with the government. In many cases the budget request by the FC to completely undertake its activities is quite higher than the ceiling provided by government.

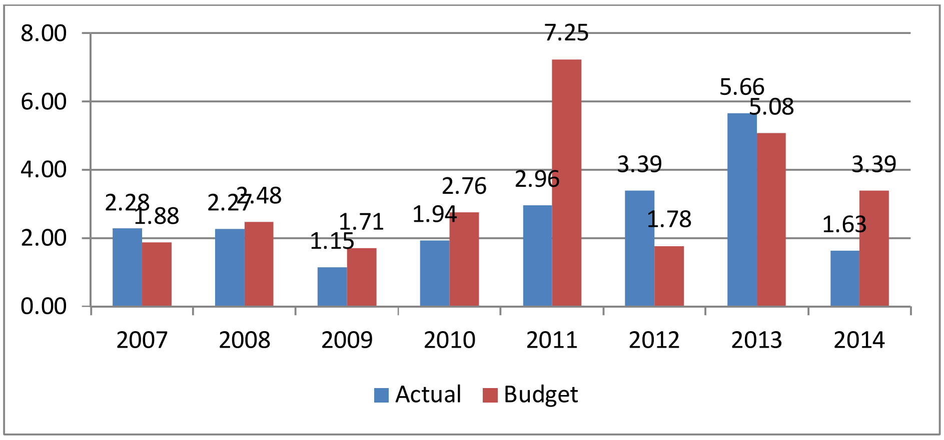
## 6.3 Expenditure by Divisions

**Trends in Actual and Budgeted Expenditure of WD**

Overall actual and budgeted expenditure of the WD as indicated in figure 6.3 shows that they increased from about GH¢2.28 million and GH¢1.88 million in 2007 to about GH¢2.96 and

GH¢7.25 million in 2011 but decreased thereafter to about GH¢1.63 million and GH¢3.39 million in 2014 respectively. With the exception of 2007 where the actual amount spent exceeded the budgeted amount, the WD spent less than what was budgeted in all the years under consideration. Overall, over the 8-year period, 2007-2014, the WD spent less than what was budgeted for them to the tune of about GH¢5.04 million resulting in a variance ratio[46] of about 23.69% which is relatively high.

*Figure 6.4.: Actual and Budgeted Overall Expenditure of WD (In million GH¢)*



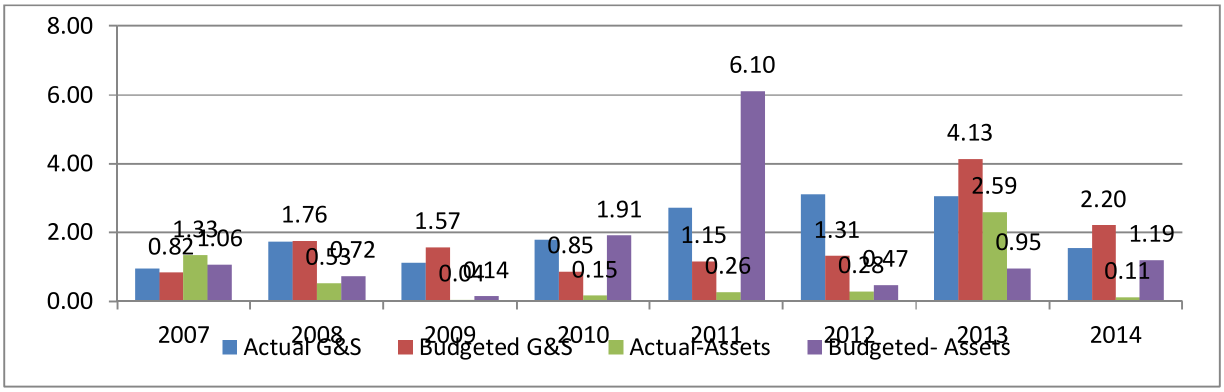

*Source: Compiled with data from WD*

Disaggregated expenditure into Assets and Good and Services generally followed the same trend as that of overall expenditure. One major observation is that the variance in budgeted and actual expenditure is far higher in the asset component of the expenditure than the expenditure on goods and services (figure 6.5).

Specifically, over the period under consideration, the WD exceeded its expenditure on goods and services by about GH¢2.21 million but expenditure on assets fell short by about GH¢7.26 million largely attributed to some asset expenditure in 2011 that were not made.

*Figure 6.5: Actual and Budgeted Expenditure on Goods and Services and Assets of WD (In million GH ¢)*

[46] Variance ratio is here defined as the sum of the variances over the years divided by the total actual amount spent expressed as percentage



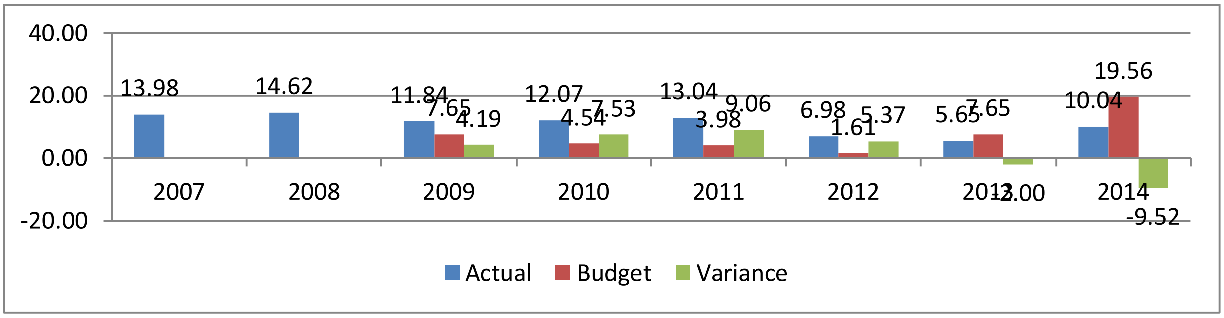

*Source: Compiled with data from WD*

It is important to note that expenditure on assets is a key component of growth and hence, inadequate investments could hamper the growth of the WD. The drop in some of the output indicators could be linked to the inadequate expenditure on goods and services to aid productivity. For example, Protected Areas (PAs) covered in patrols decreased from 232 Effective Patrol Man Days (EPMD) per officer in 2012 to 195 EPMD in 2014 while PA boundaries cleaned decreased from 1308 km in 2007 to about 562 km in 2013 before increasing to 815 km in 2014. The poor expenditure on assets could also explain the inability of the Division to increase its IGF from parks. Many parks, resource reserves do not have the requisite infrastructure such as hotels and restaurants that can improve the value of the park and increase visitation which will increase their income.

**Trends in Actual and Budgeted Expenditure of FSD**

In the FSD, as indicated in figure 6.6 overall actual expenditure increased from about GH¢11.84 million in 2009 to about GH¢13.04 in 2011 but generally decreased thereafter to about GH¢10.04 million in 2014.

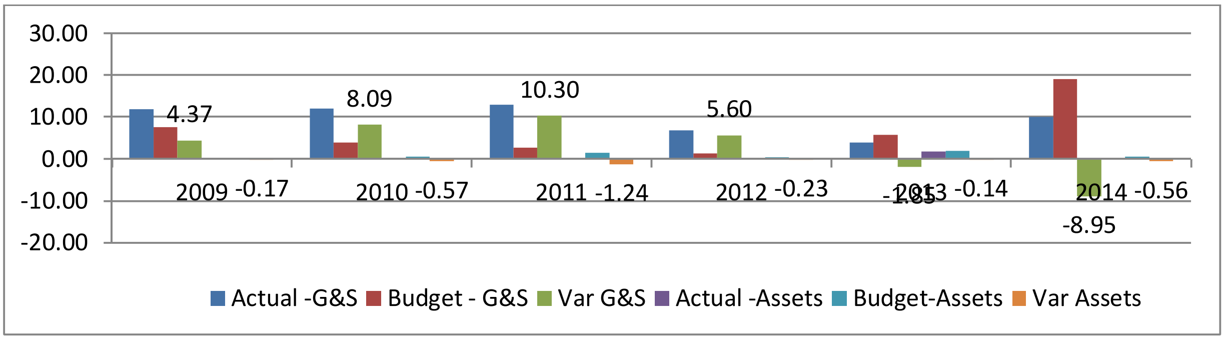
*Figure 6.6: Actual and budgeted expenditure of the FSD (in million GH¢)*




*Source: Compiled with data from FSD*

Overall budgeted expenditure however reduced from about GH¢4.19 million in 2009 to about GH¢1.61 in 2012 but increased thereafter to about GH¢19.56 million in 2014. With the exception of 2013 and 2014 where the budgeted amount exceeded the actual amount spent, the FSD spent more than what was budgeted in all the years under consideration. Overall, over the 6-year period 2009-2014, the FSD spent more than what was budgeted for them to the tune of about GH¢14.63 million. The different directional movement of actual and budgeted overall expenditure of the FSD could imply that they have very poor forecasting system.

*Figure 6.7: Expenditure on Goods and services and Assets by the FSD (in million GH¢)*



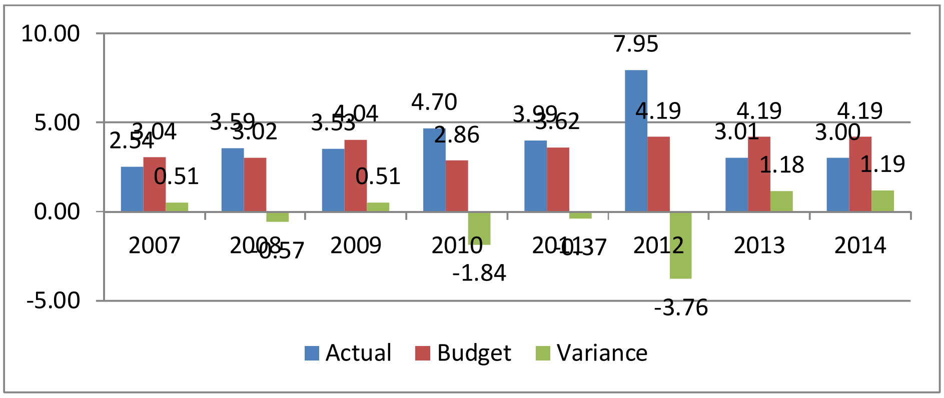

*Source: Compiled with data from FSD*

Disaggregated expenditure into Assets and Good and Services indicate that majority of FSD's expenditure, about 96.5% goes to the provision of goods and services while the remaining goes to asset formation. Following the trends in overall expenditure, actual expenditure on goods and services exceeded budgeted figures for all the years under consideration except the last two years under review, 2013 and 2014 where the opposite was observed. Overall, between 2009 and 2014, the FSD spent more than what was budgeted to the tune of about GH¢17.55 million. The reverse was observed in the expenditure on assets as actual expenditure on assets fell short of budget expenditure in all the years under review resulting in a shortfall of about GH¢2.29 million over the same period.

**Trends in Actual and Budgeted Expenditure of TIDD**

As indicated in figure 6.8, overall budgeted expenditure by the division has fluctuated marginally over the period. However, actual expenditure of the TIDD generally increased from about GH¢2.56 million in 2007 to about GH¢7.95 million in 2012 but decreased thereafter to about GH¢3.00 million in 2014. Significant variance in actual and budgeted expenditure was observed in 2010, 2012, 2013 and 2014.

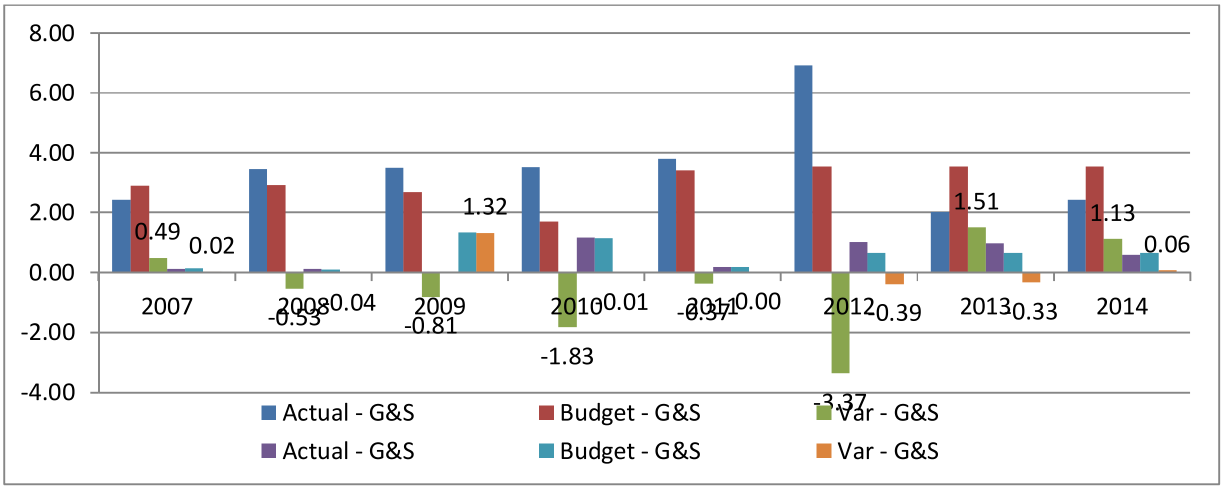
*Figure 6.8: Actual and Budgeted Overall Expenditure of TIDD (in million GH¢)*




*Source: Compiled with data from TIDD*

Over the 8-year period 2007-2014 the TIDD spent more than what was budgeted for them to the tune of about GH¢ 3.15 million.

*Figure 6.9: Actual and Budgeted Expenditure of TIDD by Type of Expenditure (in million GH¢)*



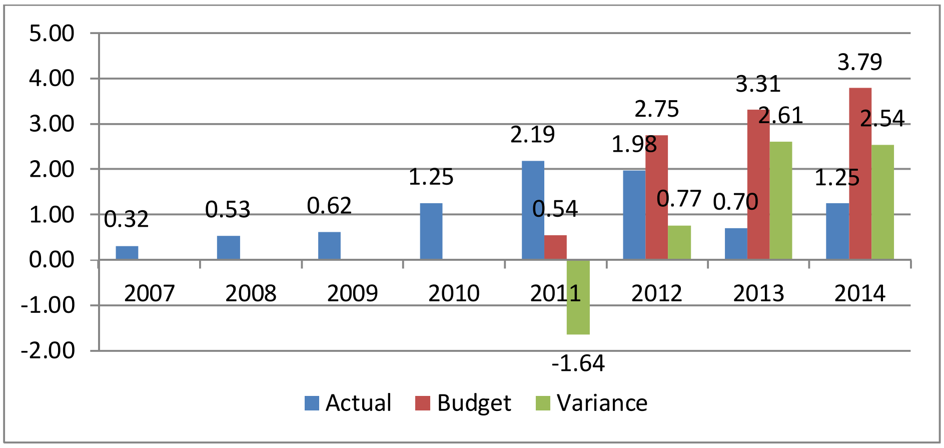

*Source: Compiled with data from TIDD*

Like the FSD, majority of the expenditure by the TIDD are made on goods and services as about 87% of its expenditure went into that sector (Figure 6.9). Actual expenditure on goods and services for the years 2007 and 2013, 2014 exceeded budgeted amounts while the reverse was the case in the remaining years. Overall, between the period 2007 and 2014, the TIDD spent more than what it budgeted for to the tune of about GH¢3.76 million. Actual expenditure on assets which forms about 13 percent of the overall actual expenditure of the Division, fell short of budget by about GH¢0.64 million.

**Trends in Actual and Budgeted Expenditure of RMSC**

Like the WD and FSD, overall actual expenditure of the RMSC generally increased from about GH¢0.32 million in 2007 to about GH¢2.19 million in 2011 but decrease to GH¢1.25 million in 2014. For the years that data is available, budgeted expenditure also rose significantly from GH¢0.54 million in 2011 to about GH¢3.79 million in 2012 (Figure 6.10). Using the data available, with the exception of the year 2011 where the actual expenditure exceeded budgeted expenditure the reverse was the case in all the other years.

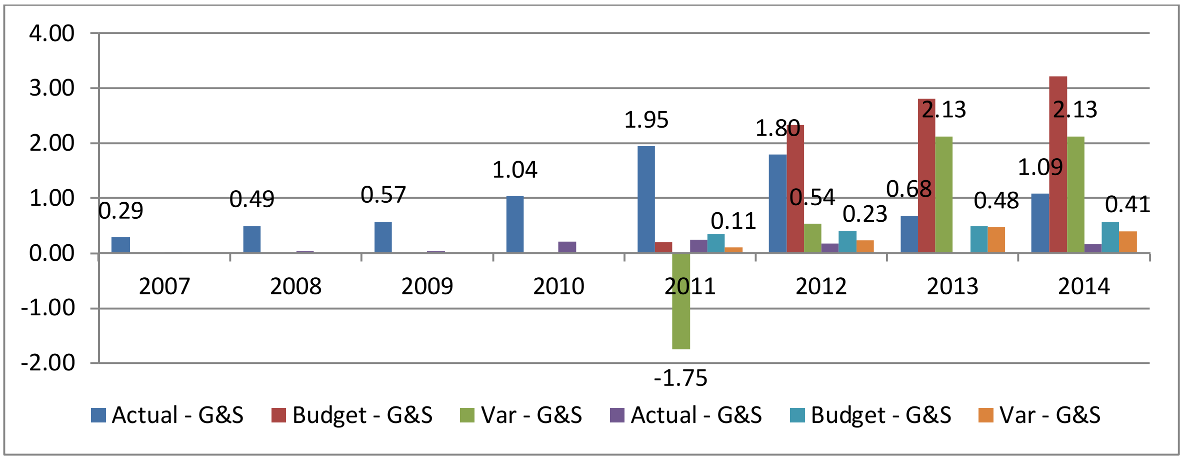
*Figure 6.10: Actual and Budgeted Overall Expenditure of RMSC (in million GH¢)*




*Source: Compiled with data from RMSC*

Overall, for the period 2011 to 2014, actual expenditure of the Division was less than budgeted expenditure by about GH¢4.28. Deviations between budgeted and actual expenditure are also quite significant for the years that data is available.

*Figure 6.11: Actual and Budgeted Expenditure by Expenditure Type of RMSC (in million GH ¢)*



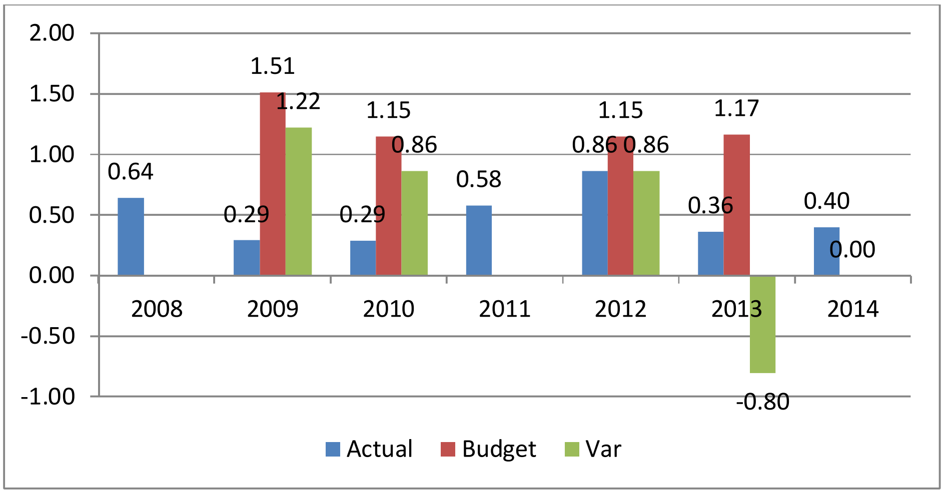

*Source: Compiled with data from RMSC*

Trends in expenditure on goods and services and assets has generally followed that of the overall expenditure by generally increasing from 2007 to about 2011 and decreased thereafter to 2014. With about 90% of the expenditure going to goods and services, one can conclude that it is the main driver of expenditure in the RMSC. For goods and services, with the exception of the year 2011 where the actual expenditure exceeded budgeted expenditure, the reverse was the case in all the other years resulting in actual expenditure being less than budgeted expenditure by about GH¢3.05 million. However, with regards to expenditure on assets, actual expenditure exceeded budgeted expenditure in all the years resulting in actual expenditure being less than budgeted expenditure by about GH¢1.23 million.

**Trends in Actual and Budgeted Expenditure of FCTC/WITC**

Overall actual expenditure of FCTC/WITC has fluctuated over the period as indicated in figure 6.12. For all the years that data is available – 2009, 2010, 2012 and 2013, budgeted values have always exceeded actual values resulting in a difference of GH¢3.17 million for that period. Comparing the performance of the WITC with that of other divisions, one can conclude that the WITC is the department with the highest variation in overall actual and budgeted expenditure.

*Figure 6.12: Actual and Budgeted Overall Expenditure of WITC (in million GH¢)*

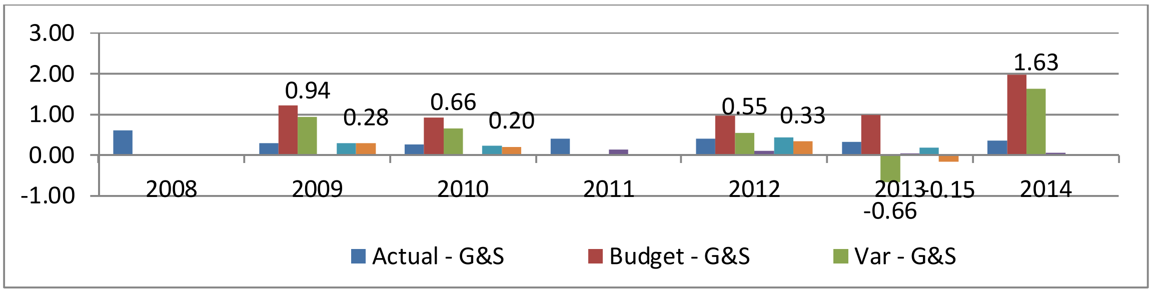



*Source: Compiled with data from WITC*

With about 87 percent of expenditure being on goods and services, overall expenditure is mainly driven by expenditure of goods and services. With regards to expenditure on goods and services, for the five years that data is available 2009, 2010, 2012, 2013 and 2014, the actual expenditure on goods and services fell short of budgeted expenditure by about GH¢3.13 million. Details of the expenditure trend is presented as figure 6.12.

The poor funding of WITC has significant impacts on the development of the tertiary sector of the industry.

*Figure 6.12: Budgeted and Actual Expenditure of WITC by expenditure (in million GH¢)*




*Source: Compiled with data from WITC*

**7.0 Sources of Finance and Revenues**

This section of the report analyses the trends in the sources of revenue of the MLNR and the FC including NREG–SBS, GOG funds, project funding and Internally Generated Funds, both in absolute terms and relative to government revenue and sector GDP. The section also analyses the actual and budgeted IGF of the various Divisions - TIDD, FSD, WD, WITC, RMSC as well as the deviations. Further the section assesses the potential for Payment of Environmental Services (PES) in providing sustainable funding for the sector.

**7.1 Financing of MLNR**

Like many other government agencies the MLNR is financed with funds from three main sources - GoG, IGF and donors. Overall financing of the MLNR has consistently increased from about 66.3 million in 2008 to about 29.3 million in 2013.

*Table 7.1: Sources of Finance for the MLNR (GH¢)*

| **Income** | **2008** | **2009** | **2011** | **2012** | **2013** | **2014** |
|---|---|---|---|---|---|---|
| Subvention from GoG | 15,681,314 | 14,097,316 | 46,265,080 | 47,877,595 | 49,257,664 | 77,074,421 |
| IGF | 25,172,410 | 37,518,900 | 20,618,807 | 113,953,487 | 143,336,312 | 156,212,819 |
| Recurrent Grant from Donor Agencies | 7,500,000 | 10,500,000 | 87,940,825 | 87,303,647 | 63,840,000 | 46,368,975 |
| **Total 1** | **48,353,724** | **62,116,216** | **154,824,712** | **249,134,729** | **256,433,976** | 279,656,215 |
| Of which NREG | - | - | 56,487,249 | 31,151,500 | 30,000,000 | |
| **Donor** | 17,907,348 | 18,418,052 | 26,453,576 | 22,312,147 | 33,840,000 | |
| Total | 66,261,072 | 80,534,268 | 181,278,288 | 271,446,876 | 290,273,976 | 279,656,215 |

*Source: Compiled with data from MLNR. Note : **Total 1** includes goods and services, assets compensation, ABFA, SIP, NREG etc or any other support*

However, the financing of the Ministry as a percentgea of agriculture GDP and total government revenue had generally increased from about 0.17 percent and 0.10 percent in 2008 to about.0.32 percent .and 0.15 percent in 2013 respectively. Internally generated funds have been the major source of financing for the Ministry with the exception of 2011 where the share of Donor in total financing exceeded that of IGF.

Between 2008 and 2014, IGF has contributed about 40.5 percent to the overall financing of the MLNR, while donor and GoG has contributed 38 and 21.5 percent respectively. One important observation is that funds from SBS-NREG has contributed significantly to the financing of the Ministry by contributing about 31.2, 11.5 and 10.3 percent to the total financing of the Ministry in 2011, 2012 and 2013 respectively. Evidently, the absence of this support would have made it difficult for the Ministry to undertake its activities.

*Table 7.2: Grant and loans Disbursements to the MLNR 2010 – 2014 (mil US$)*

| Grantor Country | Sector/Project | Committed Amount | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| | **MLNR** | **92.64** | **9.76** | **9.76** | **10.32** | **4.29** | **4.01** |
| ADB | Ghana Investment Plan Under the FIP | 0.25 | | | | 0.25 | |
| ADB | Engaging Local Communities in REED+ | 19.62 | | | | | 0.57 |
| Netherlands | NREG | 29.29 | 9.76 | 9.76 | 9.77 | | |
| World Bank | Forest Carbon Partnership Facility Readiness | 5.20 | | | 0.40 | 2.07 | 2.28 |
| World Bank | NREG Tech Assist. | 5.00 | | | | 1.36 | |
| World Bank | Extractive Industry Transparency Initiative - Post Compliance I | 0.40 | | | 0.15 | 0.11 | |
| World Bank | Forest Investment Project | 30.00 | | | | 0.50 | 0.27 |
| World Bank | Land Administration Project II | 2.88 | | | | | 0.89 |

*Source: aid and Debt Division, MoF*

Complete information on all donor funded projects could not be obtained. However, information from the Aid and Debt Management Division of the MoF indicates that for the period 2010 – 2014 (table 7.2.), total donor grant and loans commitment to the MLNR amounts to about 92.69 million US with majority (about 47%)of the funds coming from the Worlds Bank. This is followed by the Netherlands government with a commitment of about 46.8 % with the remaining coming from the African Development Bank. Even though information on the disbursement timelines are not known, one can conclude that the Netherlands has disbursed majority of the loans and grants over the period. The major beneficiaries of donor funds to the MLNR is the Forestry sector.

## 7.2 Forest Sector Financing

The traditional sources of Finance for the Forestry Sector include Government of Ghana (GoG), IGF, Plantation and Projects, and Grants from Donors. The IGF consist of Stumpage Fees, Export Levy, Timber right fees, fees, and royalties, among others. Loans also constitute an additional source of financing for the sector.

Table 7.3 provides information on the composition of funding or income sources for the FC. About two-thirds of forestry expenditure is currently financed from the GoG subventions. Over the period between 2007 and 2012, the share of GoG financing of forestry activities increased from 18.9 percent to 63.1 percent. However, IGF which used to be the highest source of financing for the FC declined from 40.2 percent to 16.7 percent over the same period. There is also indication of donor support for the sector dwindling as the share of Plantation Development Grant to the Commission's income declined from 26 percent to 12 percent while recurrent grant from donor agencies also declined from about 15 percent to about 8% over the period.

*Table 7.3: Sources of Finance for the FC (GH¢)*

| Income | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|
| **Subvention from GoG** | 6,941,477 | 10,329,686 | 39,486,647 | 39,946,223 | 48,716,070 | 73,429,790 | 52,834,946 |
| **Internally Generated Funds (I. G. F)** | 14,758,300 | 16,229,858 | 9,076,371 | 13,115,630 | 12,771,979 | 19,446,397 | 25,002,662 |
| **Plantation Development Grant** | 9,532,953 | 10,559,714 | 9,348,366 | 14,760,311 | 6,599,137 | 13,917,242 | 0 |
| **Recurrent Grant from Donor Agencies** | 5,479,614 | 5,869,986 | 1,218,067 | 1,867,688 | 93,184 | 9,591,351 | 17,532,924 |
| Total | **36,712,344** | **42,989,244** | **59,129,451** | **69,689,852** | **68,180,370** | **116,384,780** | 95,370,532 |
| **Of which NREG** | | 16,847,397 | 17976726 | 23654764 | 6000000 | | 9000000 |

*Source: Forestry Commission*

The reduction in IGF and donor funds in the midst of decreasing timber and other forest resources brings to the fore the issues of having sustainable financing for the forestry sector. Such sustainable financing for the sector could focus on the development of Payment for Environmental Services (PES) since it has the advantage of improving forest stock, ensuring biodiversity conservation and some ensuring constant income from the sector on sustainable basis.

Between 2008 and 2012 an amount of GH¢ 37,622,680 has been received by the FC under the SBS-NREG programme for its activities. Majority of the funds were disbursed in 2009. The FSD has obtained the largest share of SBS-NREG financing between 2008 and 2011 with an allocation of about 44 % of the total funds over the period followed by the WD and the Corporate Headquarters which received about 18 and 17 percent respectively. A detail of the information is presented as Table 7.4. One issue that appears to bother the Commission is the untimely release of funds. For example, funds that were meant to be disbursed in 2012 were disbursed in 2013.

*Table 7.4: Use of the SBS-NREG funds per Division of the FC (GH¢)*

| Division | 2008 | 2009 | 2010 | 2011 | Total | Share of total (%) |
|---|---|---|---|---|---|---|
| **Forest Services Division** | 900,600 | 9,466,240 | 4,212,428 | 1,866,944 | 16,446,211 | 44 |
| **Wildlife Division** | 728,297 | 2,525,271 | 2,025,000 | 1,531,531 | 6,810,099 | 18 |
| **Timber Industry Development Division** | 95,000 | 2,414,661 | 1,085,000 | 1,071,878 | 4,666,539 | 12 |
| **Resource Management Support Centre** | 267,175 | 386,967 | 1,756,352 | 250,530 | 2,661,023 | 7 |
| **Wood Industries Training Centre** | 100,000 | 155,000 | 255,000 | 77,134 | 587,134 | 2 |
| **Corporate Headquarters** | 692,021 | 3,028,588 | 1,529,080 | 1,201,985 | 6,451,673 | 17 |
| **Total** | 2,783,093 | 17,976,726 | 10,862,861 | 6,000,000 | 37,622,680 | 100 |

*Source: FC*

For some of the Divisions such as FSD, such delays can have some adverse impact on their outputs since if the money is meant for activities such as planting which should coincide with the rains, the delay of funds will adversely affect the activity.

### Donor funding of special projects

Two important projects receiving donor assistance between 2007 and 2014 are the Ghana Legality Assurance Scheme under the VPA-FLEGT Agreement with the EU and the Climate Change Mitigation initiative through the implementation of the Reduced Emission from Deforestation and Forest Degradation and Carbon Enhancement (REDD+) Strategy.

*Establishment of a Legality Assurance System under VPA-FLEGT*

The initiative is being implemented by the Timber Validation Department (TVD) of the FC. The project is receiving funding from the DFID. The VPA Secretariat, predecessor of the present Timber Validation Department of the FC has spent some amount to ensure the implementation of the project and some outputs has been achieved. Details of the expenditure and outputs is provided as Table 7.5.

*Table6.7.5: Expenditure and outputs onf the Legality Assurance System (LAS), GBP*

| Period | Expenditures | Outputs |
|---|---|---|
| 2007-10 | 207,000 | Completion of forest sector stakeholder consultations |
| | | Completion of preparation and readiness for EU-VPA Agreement |

| | | |
|---|---|---|
| 2011-12 | 5,000,000 | Implementation of LAS |

*Source: Timber Validation Department, FC*

*Climate Change Mitigation*

The Climate Change Unit of the FC is implementing the Ghana Climate Change Agenda in the forestry sector. With assistance from the World Bank Carbon Partnership Fund, the Unit is implementing activities towards Ghana's REDD+ Readiness.

*Table 7.6: Expenditures under Ghana REDD+ Readiness Preparation, 2009-2014, USD*

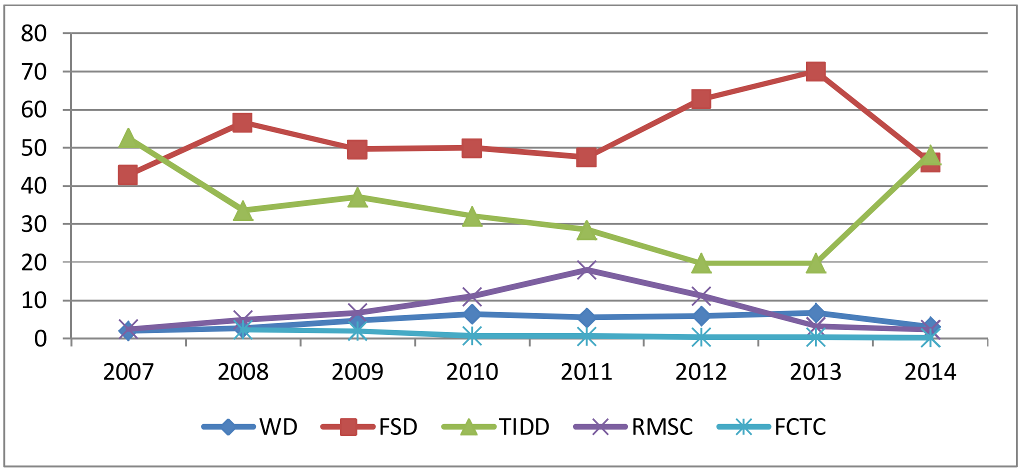
| Period | Funding received | Actual spending | Outputs |
|---|---|---|---|
| 2009-11 | 200,000 | 200,000 | Completion of forest sector stakeholder consultations |
| | | | 2012-Comoletion of REDD+ readiness |
| 2014 | 3,400,000 | 3,300,000 | Implementation of REDD+ activities, including consultancy services |
| Total | 3,600,000 | 3,500,000 | |

*Source: Climate Change Unit, FC*

Total funding received between 2009 and 2014 amounted to about USD 3.6 million, with total spending standing to date at about USD3.5 million. Details of the expenditures and output is provided as Table 7.6.

The FSD is the major contributor to IGF as on the average it contributed about 53.2% to overall IGF between 2007 and 2014 (Figure 7.1). The share has generally increased over the period apart from 2014 where a significant reduction was observed.

*Figure 7.1: Share of actual contribution to IGF by Division*



*Source: Compiled with data from the Divisions*

Following the FSD in terms of contribution to IGF is the TIDD which on the average contributed about 34% to IGF. However, there has been a general decrease in its share with the exception of 2014 where a significant increase was observed. Decrease in IGF to the TIDD can mainly be attributed to the dwindling forest resources and the low value addition to timber products. The RMSC and WD contributed on the average about 7.5% and 4.6% respectively to IGF leaving the WITC as the lowest contributor to IGF with an average share of less than 1%.

A critical look at the data suggests that about 87% of the IGF for the sector has been generated by the FSD and the TIDD basically through revenue from fees, permits, export levies, penalties from illegal activities, among others. This suggests that improvement in IGF should focus more on these sectors even though there are other sectors such as WD that could generate significant revenue if the right investments are made.

There are a number of issues that has led to the reduction in revenue from TIDD and FSD which can be attributed to the inefficiency in forest management. The poor management of concessions has led to a lot of illegal activities. This is evidenced by the increase in reported cases of official chainsaw activities apprehended. This information is on the reported cases neglecting the many unofficial ones that are not caught and therefore unreported.

There are reports of forestry officials owning chainsaw machines and collaborating with operators to undertake illegal chainsaw activities. Discussions with stakeholders also suggested that the FC does not pay the stock surveyors when they work on weekend and on holidays. The companies therefore incentivize them to work on these days and consequently ask them to bend the rule in their interest by adjusting the yield. This poses a challenge to RMSC objective of enforcing forest prescription and standards.

The poor contribution of the WD sector and the WITC to overall IGF calls for a lot of concern as this sector has the potential to significantly contribute to forest revenue through Payments for Environment Services (PES), increasing value addition to forestry resources as well as increasing forest sector outcomes. Specifically, investment in the parks, sanctuaries will enable the WD to increase its revenue from the current levels while better training of stakeholders by the WITC/FCTC will allow them to improve their skills in furniture production and enable them to compete favorable with the rest of the world. Currently the tertiary sector of the forestry industry has not got the relevant skills and technology to increase value addition to wood which could have significant impact on the contribution of the sector to GDP. Information from the formal wood industry stakeholders indicates that training being provided by the WITC are not relevant to the market while the technology being used are already dated. Many of the formal furniture producers are now being outcompeted by products from Asia specifically China.

Information available indicates that the FC as a whole is doing better in terms of budgeted and actual IGF even though there are differences in efforts in IGF collection among Divisions. Specifically, for the years that data is available, 2011 to 2014, budgeted IGF was lower than actual IGF collected indicating that the Commission exceeded its targets in IGF apart from 2013 where the reverse was the case (table 7.7.).

*Table 7.7: Trends in Budgeted and Actual IGF (in million GH¢)*

| | WD | | FSD | | TIDD | | RMSC | | FCTC | |
|---|---|---|---|---|---|---|---|---|---|---|
| Years | Actual | Budgeted | Actual | Budgeted | Actual | Budgeted | Actual | Budgeted | Actual | Budgeted |
| 2007 | 0.255 | 0.290 | 5.520 | | 6.774 | 8.649 | 0.316 | | | |
| 2008 | 0.265 | 0.333 | 5.638 | | 3.345 | 5.866 | 0.489 | | 0.223 | |
| 2009 | 0.422 | 0.448 | 4.545 | 7.645 | 3.400 | 6.274 | 0.616 | | 0.177 | 0.791 |
| 2010 | 0.723 | 0.562 | 5.669 | 4.543 | 3.648 | 2.887 | 1.250 | | 0.069 | 0.771 |
| 2011 | 0.662 | 0.602 | 5.784 | 3.977 | 3.474 | 3.536 | 2.186 | 2.306 | 0.071 | 0.221 |
| 2012 | 1.044 | 0.723 | 11.077 | 1.608 | 3.491 | 4.196 | 1.975 | 2.746 | 0.056 | 0.157 |
| 2013 | 1.468 | 1.011 | 15.453 | 14.108 | 4.364 | 3.858 | 0.702 | 3.307 | 0.075 | 0.107 |
| 2014 | 1.681 | 1.123 | 24.951 | 19.556 | 26.072 | 14.105 | 1.246 | 3.789 | 0.063 | 0.166 |

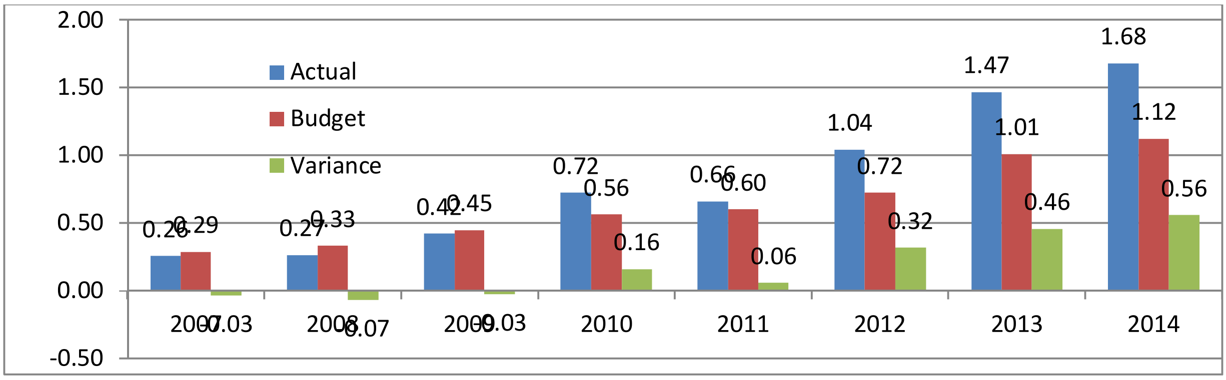
*Source: Compiled with data from FC*

With regards to efforts being made by the Division to achieve IGF targets, one can observe from table 7.2 that the FSD and WD were able to achieve their targets for 2011 to 2014 while the TIDD has improved by exceeding its targets in 2013 and 2014. The problem lies with the RMSC and the WITC/FCTC which have never been able to achieve their targets in the period under consideration. One has to be careful with the interpretation of these results as the method for forecasting the budgeted IGF for the different Divisions may be different and may not reflect the actual conditions on the ground. This could suggest the need to relook at the forecasting system of the Commission.

**7.3 Actual and Budgeted Internally Generated Funds by Divisions**

The dwindling donor funds and funds from IGF suggests that funding for the sector will be very difficult if more is not done at the Divisional level to assess revenue shortfall, their causes as well as measures to improve on efficiency in collection. In the next paragraphs we assess the IGF shortfall of the various divisions and further discuss the possible reason for the shortfalls.

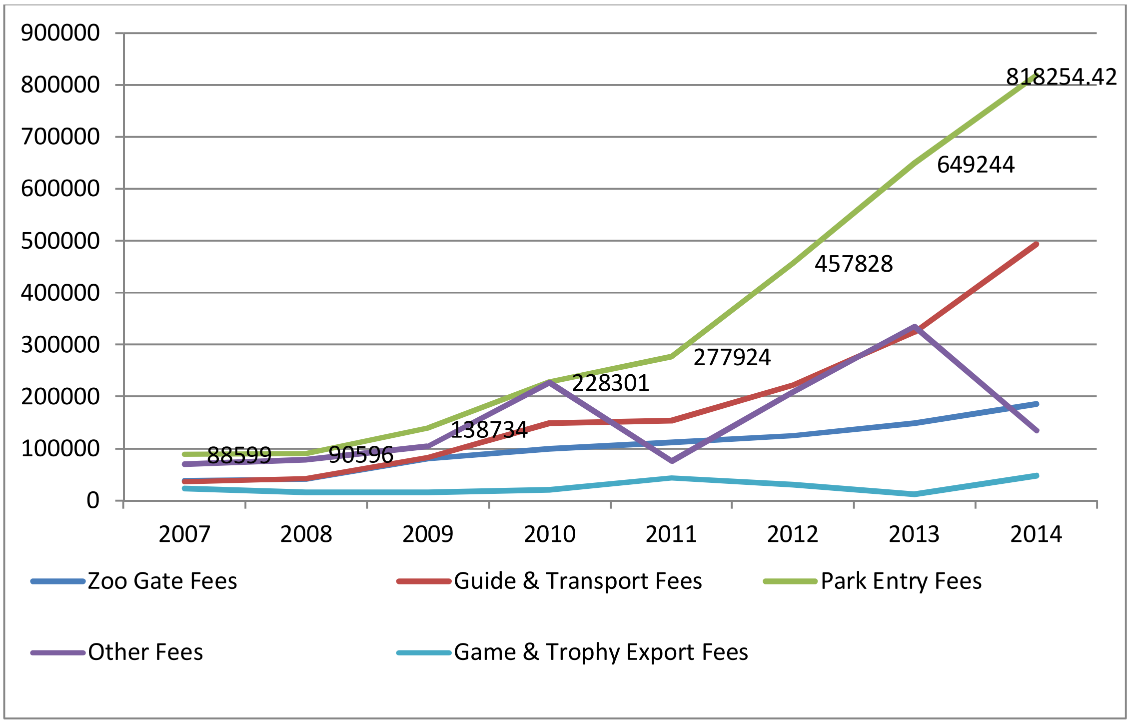
*Figure 7.2: Trends in Actual and Budgeted IGFs from the WD (in million GH¢ )*



*Source: Compiled with data from WD*

Both actual and budgeted IGF from the WD has increased consistently from about GH¢0.26 and GH¢0.29 million in 2007 to about GH¢1.68 and GH¢1.12 in 2014 respectively. A notable observation is that between 2007 and 2009, actual IGF collected was far less than budgeted by about GH¢0.13 million but the situation has improved since 2009 with actual IGF exceeding the budgeted by about GH¢1.56 million. Overall, between 2007 and 2014 actual IGF collected has increased at an average annual rate of about 4.9 %.

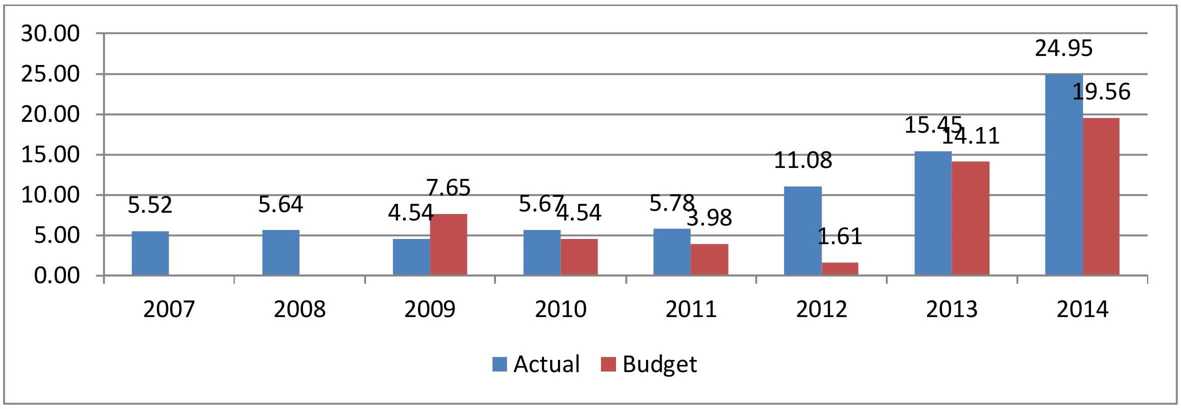
*Figure 7.3: Trends in disaggregated IGF by WD, 2007-2014*




*Source: Compiled with data from WD*

As shown in Figure 7.3, Park entry fees is the most significant source of IGF for the WD with an average contribution to IGF of about GH¢ 343,685.1 over the seven year period starting from 2007. This represents about 42.2% of total IGF from the Division over the period. Revenue from guide and transport has also observed a sharp increase over the period since it positively correlates with part entry fees. Revenue from Game and Trophy export has been the lowest source of IGF for the WD over the period by contributing about GH¢ 25,863.31 to total IGF over the period. The significant increase in park entry fees may be due to the slight increase in resources to the WD and may imply that there is a high potential for the WD to generate significant PES if the right investments are made.

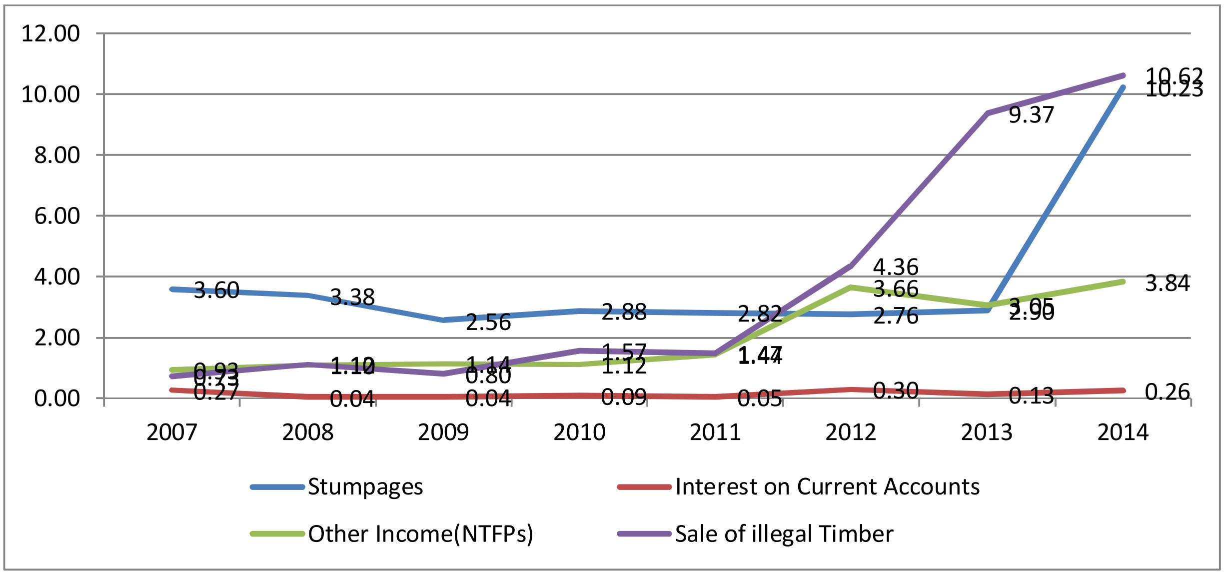
*Figure 7.4: Trends in Actual and Budgeted IGFs of FSD ( in million GH¢)*




*Source: Compiled with data from FSD*

With regards to the IGF from the FSD, while actual IGF increased consistently from about GH¢4.54 million in 2009 to about GH¢24.95 million in 2014, budgeted IGF decreased from about GH¢7.65 million in 2009 to about GH¢1.61 million in 2012 but increased significantly to about GH¢9.56 million in 2014. Overall, actual IGF collected exceed budgeted amount by about GH¢16.04 million between 2009 and 2014

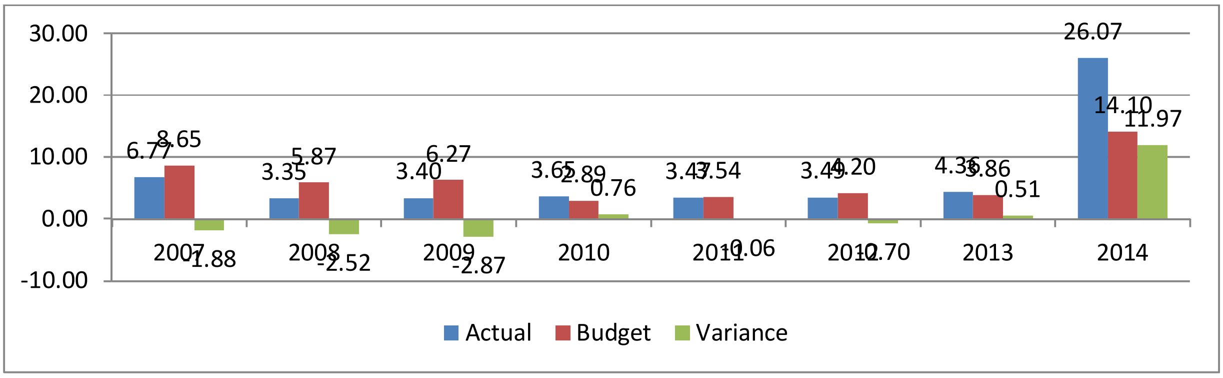
*Figure 7.5: Trends in the Components of Actual IGF by FSD*




*Source: Compiled with data from FSD*

Disaggregated information on the components of the IGF as shown in figure 7.5 indicates that stumpage fees which is the major component of IGF and interest on current account has relatively remained stable over the period 2007 to 2014. However, some significant increase in the sale of illegal timber and other sources of income (NTFPs) since 2011 and 2013 respectively has been observed. On the average over the period, stumpages accounted for 39.6% of IGFs from the FSD while sale of illegal timber followed closely, accounting for 38.2% of IGF. Other sources of income comprising stock survey fees, conveyance fees, inspection fees, NTFPs accounted for 20.7% of IGF from the division.

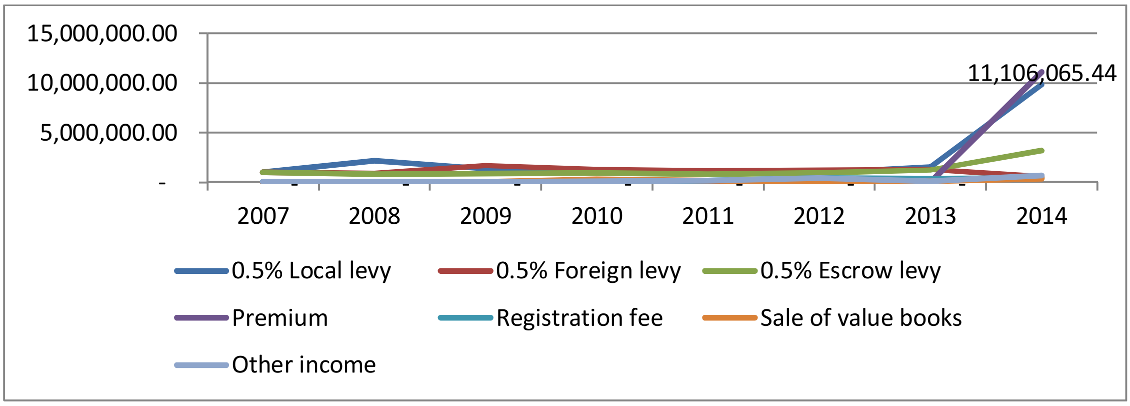
*Figure 7.6: Trends in Actual and Budgeted IGF of TIDD (in million GH¢)*




*Source: Compiled with data from TIDD*

Both actual and budgeted IGF from the TIDD has generally experienced a decrease between 2007 and 2013. It was only in 2014 that a significant increase was observed. Specifically, budgeted and actual IGF reduced from about GH¢6.77 million and GH¢8.65 million in 2007 to about GH¢4.36 million and GH¢3.86 million in 2013 but increased significantly to GH¢26.07 million and GH¢14.10 million in 2013 respectively. Overall, actual IGF from the sector exceeded the budgeted amount by about GH¢14.10 million over the period. The observed situation is heavily influenced by the extreme values in 2014.

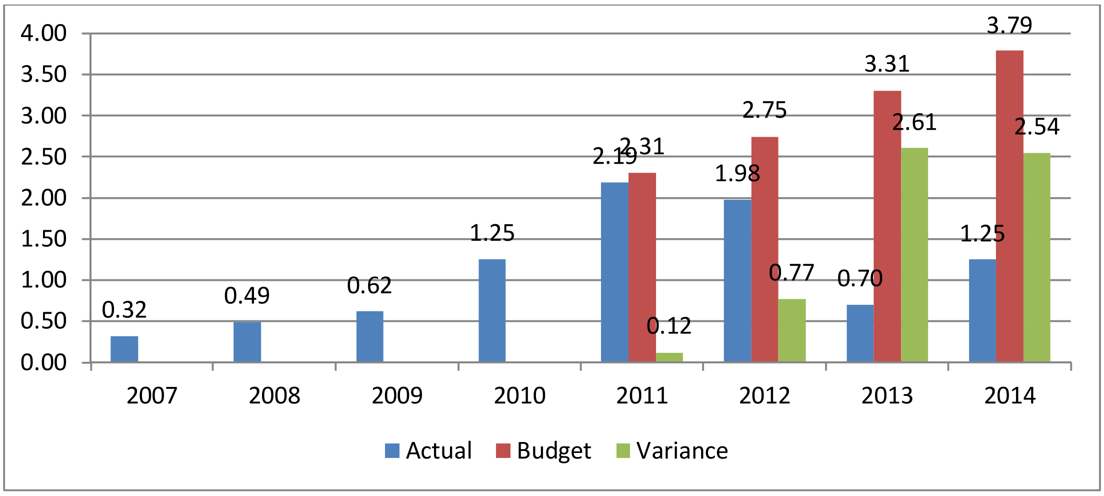
*Figure 7.7: Trends in disaggregated IGF from TIDD, 2007-2014*



*Source: compiled with data from TIDD*

Internally Generate Revenue at the TIDD has been largely driven by the 0.5% local levy, 0.5% escrow levy and the 0.5% foreign levy over the period under consideration. It is only in the years 2014 that the introduction of premium served as the topmost source of IGF for the Division.

*Figure 7.8: Trends in Actual and Budgeted IGFs of RMSC*



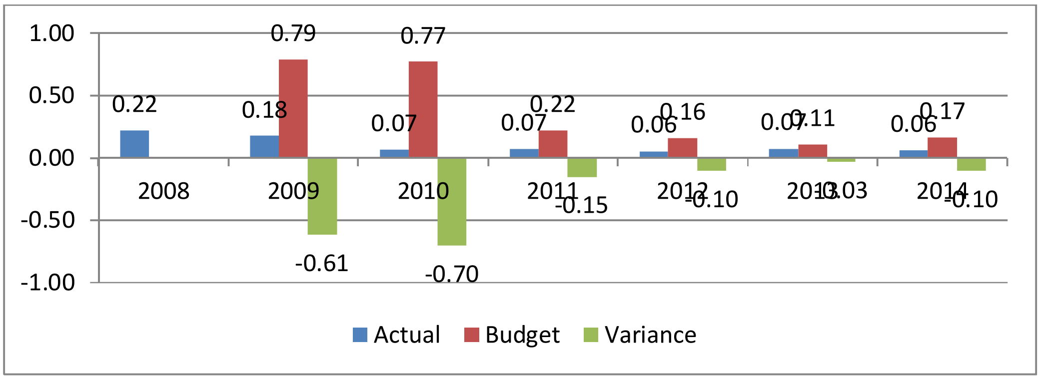

*Source: Compiled with data from RMSC*

Actual IGF by RMSC has increased consistently from about GH¢0.32 million in 2007 to about GH¢1.25 million in 2014 at an average annual rate of about 4.9 %. For the years that data is available, 2011 to 2014, budgeted IGF amounts did exceed actual resulting in budgeted IGF being less than actual by about GH¢6.04 million. It is worthy of note that in the last two years, the variances between actual and budgeted IGF has been very high.

Discussions with Industry players such as WAG, FAWAG, GTMO, among others, indicate that there exist significant potential for the TIDD to increase revenue through increases in value addition and consequently increase in levies and fees. They alluded to the fact that WITC provided a lot of technical and financial assistance to support them in the 1990s which allowed them to have extra ordinary relations with the Division. However, the situation has changed in recent years. With the support of TIDD, the Wood village, an industrial estate of wood workers was established with a lot of infrastructure for the artisans. The basic idea for the establishment of the Village was to ensure value addition which somehow has been cut short due to the poor support from the Division. .However, the situation has changed in recent years. The Village is not active today because the infrastructure has not been maintained. Due to poor support from the Division, there has been a lot of wastage of wood while value addition to wood product which has the potential to increase GDP has not been that significant. This is evident in the reduction in the secondary and tertiary export discussed in previous sections.

The FCTC/WITC has not been doing very well in terms of increasing IGF collection. Actual IGF by the Division has decreased from about GH¢0.22 million in 2008 to about GH¢0.06 million in 2014 together with budgeted figures which reduced from about GH¢0.79 million in 2008 to about GH¢0.17 million in 2014. This culminated in a shortfall of IGF of about GH¢1.70 million between 2008 and 2014. Deviation in actual and budgeted IGF had been very significant especially in 2009 and 2010.

*Figure 7.9: Actual and Budgeted IGF of FCTC/WITC*




*Source: Compiled with data from FCTC/WITC*

Discussions with Industry players such as WAG, FAWAG indicated that the WITC offered very relevant training to members of WAG and FAWAG at small fees which they were prepared to pay. Later they realized that technology developed fast in the industry than what the WITC can provide, leaving their training irrelevant to the industry. In other words, the training they were providing was on techniques that they already knew. Many of them therefore decided not to participate in the training which probably could explain the reduction in IGF. Technology in the production of knock-down furniture which was highly needed by the wood workers was not available to the WITC. The industry alluded to the fact that they were prepared to pay for training in modern technologies if the Center could provide.

Discussions with WITC also confirmed that between 1995 and 2005 many experts such as saw doctors and kiln dryers were trained. However training by the Center has decreased. Their general observation was that the industries were not prepared to pay for the cost of training because they claimed they were paying 3 percent of export value and part of it is supposed to be used for training. They also alluded to the fact that, since 2000 some of the firms started bringing in complex machines such as, computer numerical finger jointing and lamination machines and consequently brought experts to train their staff since WITC did not have the technology and resource persons to undertake the training.

This current poor outcome of the WITC was confirmed in discussions with authorities at WITC. They argue that between 2008 and 2012, the FC was somehow of the opinion that the WITC was not playing any significant role and were being considered not as a core operation of the Commission. There were even proposals for them to be put under the Ministry of Trade and

Industry. As such very little attention was paid to the Center. Even though the situation has improved, this has affected support for the Center. It must also be noted that th poor performance of the WITC could also be attributed to the general performance of the industrial sector in particular that is not quite encouraging.

### 7.4 Opportunities for Improving Revenues Through PES

With declining timber and non-timber forest resources and the consequent reduction in IGF, one area that the FC could focus to increase revenues is the Payment for Ecosystem Services (PES). Payments for Ecosystem Services are incentives offered to landowners and resource users, including farmers, in exchange for managing their land to provide some sort of ecological service. One can describe PES as a transparent system for the provision of environmental services through conditional payments to voluntary providers that promote the conservation of natural resources.

Although many PES are funded by governments and involves intermediaries, such as non-governmental organizations, some can be structured as contacts between consumers and suppliers of ecosystem services. The economic principle governing the functioning of PES is embedded in Coarse Theorem in which the beneficiaries of the ecosystem services are willing to pay a price that can be expected to be lower than their welfare gain due to the services while the providers of the ecosystem services are expected to be willing to accept a payment that is greater than their cost of providing the services.

The 2005 UN-sponsored report on Millennium Ecosystem Assessment identifies and assesses 24 specific ecosystem services to include food production (in the form of crops, livestock capture fisheries, aquaculture and wild foods), fibre (in the form of timber, cotton, hemp and silk), genetic resources (bio-chemicals, natural medicines and pharmaceuticals), fresh water, air quality regulation, climate regulation, water regulation, erosion regulation, water purification and waste management, disease regulation, pest regulation, pollination, natural hazard regulation and cultural services (including spiritual, religious and aesthetic values, recreation and ecotourism). Among these, the three most important in terms of market size worldwide are regulating (including climate and water), Biodiversity conservation and Eco-tourism services.

The potentials for PES to generate considerable benefits in the forestry sector have been assessed by Hamilton Resources and Consulting and IUCN (2014)[47]. Specifically, estimates of PES was made for forest reserves and surrounding communities in the Wassa-Amenfi-Central District in the Western Region where investments in Globally Significant Biodiversity Areas, eco-tourism and resource development was modeled and the Atewa Range Forest Reserve in the Kwaebibirim District in the Eastern Region where a market potential for water provision as an

[47] Hamilton Resources and Consulting & IUCN (2014). A Critical Analysis And Comparative Studies On Ghana's Experiences In Payment For Environmental Services (PES)

ecosystem service was assessed and its economic value determined using Rapid Appraisals, focus group discussions, interviews with farmers, opinion leaders ordinary community members and forestry experts in the area, districts and regions

Results of the analysis suggest that PES markets in the area have the potential to sustainably generate about US$2,700 per hectare in forest benefits. The potential forest rent estimated are close to US$800 per hectare or 30% of the potential forest benefit. The report further estimates that this potential benefits is about 16 percent in excess of the optimal forest tax that could have been collected from a legal timber harvest level in 2005 or twelve times the current stumpage fees collectable from a 100 percent harvest. Also, the PES market has the potential to support integrated sector value chain in multiples of the potential forest benefit as well as creating opportunities for both direct and indirect employment.

The report further elaborate that private sector investments in the development of the PES market is about US$ 890 per hectare or US$180 annually for 5 years. The State's role in regulation and protection, alongside private investments is also expected to be about US$ 15 per hectare per annum. In a situation where the state partner the private sector in resource development, a higher cost estimate of about US$83 per hectare per annum may be required in the Atewa forest. Furthermore, the report suggest that PES provides a potential to support wider household and community participation in forestry and payment of their costs, as well as those of the State as a regulator or investor. It estimates that about 16 percent of total transactions will be used to compensate households, suggesting the importance of household in designing incentives to conserve forests. In a gist, PES markets in Ghana have the potential to sustainably generate annual benefits of at least US$2,700 per hectare as against a total cost of about US$1,900 per hectare.

In fact there are several advantages that the country stands to gain from the implementation of PES systems. Landscape targeting under PES promises wider participation of small land holders than can be assumed under the REDD+, minimizes the risk of pressure of converting forests outside REDD+ areas that will result in long-term adverse impacts on livelihoods. Also PES can be expected to manage conflict between environmental objective (additionality) and poverty reduction (landscape targeting) by incorporating additionality over carefully researched baselines, and targeting corresponding land holders with established claims to enable PES apply the additionality criterion and address equity and ethical problems at the project level.

Inspite of the many advantages of PES, there are some challenges that need to be addressed in order to obtain the benefits. The implementation of PES draws on multi-sectoral linkages with the forestry, agriculture, energy, mining and water sectors as well as economic, social and research infrastructure which is very difficult to achieve. Addressing these challenges will require the coordination of pilots and mainstreaming them into national frameworks with time in order to obtain the cooperation of government departments during implementation as well as linking government extension workers into PES actions at the local level. Policy and institutional structure to support the implementation of PES is also weak and may require strengthening.

## 8.0 Outputs, Efficiency and Outcomes

This section of the report looks at both the quantitative and qualitative outputs of the Divisions and assesses the efficiency and effectiveness of expenditure of the Divisions and the extent to which these expenditures promote internal efficiency and overall achievement of the sector outcomes. The section also analysis prioritization of expenditures by the various Divisions over the period under consideration, their impact on overall service delivery and outcomes. Where possible, budgetary performance of the FC is benchmarked against comparator organizations in the region in order to assesses efficiency.

### 8.1 Output and efficiency of Divisions

This section of the report looks at both the quantitative and qualitative outputs of the Divisions and assesses the efficiency and effectiveness of expenditure of the Sector and the extent to which these expenditures promote internal efficiency. The section also discusses prioritization of expenditures by the various Divisions over the period under consideration and their impact on overall service delivery and outcomes. Where possible, budgetary performance of the Divisions is benchmarked against comparator organizations in the region in order to assesses efficiency.

The intention of the methodology of the current review is to consider the policy implementation of FC Divisions and the FCTC and their outputs. A special focus is given to how they have managed spending in terms of policy priorities in the context of real spending level, and how these outputs are linked to policy outcomes. Treating this issue required structured budget-activities-output data (Appendix 2 to 4) which were not available at the time of drafting. Notwithstanding the current limitation, the review is able to present valuable insights into spending patterns, and is also able to identify and analyze their consistencies with government priorities and also their value for money attributes. These have been made possible through references to literature on institutional efficiency, local and global benchmarks and consultant's own expert judgment.

In line with FC's constitutional mandate requiring it to manage and regulate forest and wildlife resources, its Divisions, as implementers of government forest and wildlife policy have set their strategic objectives as prescribed by strategic directions of the FC Board, and carry specific but inter-related roles and responsibilities that are consistent with the strategic objectives. The strategic objectives derive from the wider national development objective, and define the forest administration structure. The forest administration structure is also designed to reflect relationships between the state that vests in itself forest reserves in trust for their traditional owners on the one part, and between the FC and its constituent Divisions and stakeholders on the other.

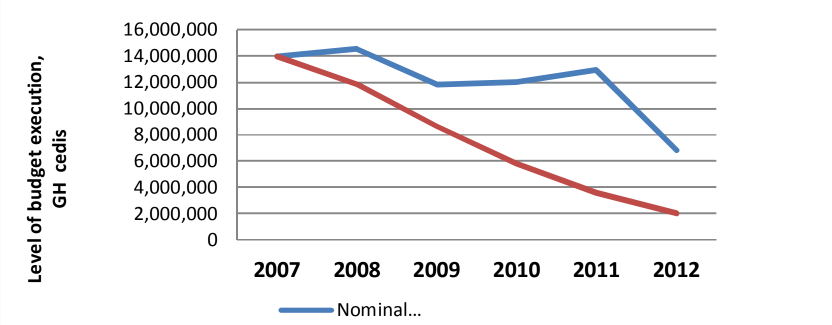
From immediate objectives of the Divisions, various activities are planned for execution under the Division's annual budget. These activities receive and apply financial resources and others as inputs which logically culminate into outputs that in the course of the current review are reported by the various Divisions. One important general observation made is the different picture painted by real expenditure trends as compared to the nominal. This observation has been used to set the context of assessing the degree of prioritization and efficiency within the

Divisions. Specific divisional policy focus and implementation by the Divisions are already addressed in this review.

**Forest Services Division**

Over the period 2007-2012 when complete data set for analysis is available, FSD's nominal spending declined progressively. Budget execution in 2012 was as low as 50 per cent of the base year. In real terms, the decline was steeper. Real budget execution was about one-third the nominal spending level in 2012.

*Table 8.1: Comparison of FSD nominal and real spending, 2007-2012*




*Source; Computed with data for FC Annual Reports, 2007-2014*

There are several quantitative and qualitative outputs from the activities of the WD. The quantitative outputs include PAs covered in patrols, Poachers arrested and prosecuted, PA boundaries cleaned, PA access roads maintained, number of communities educated on wildlife conservation, number of schools educated on wildlife conservation, number of wildlife staff trained, etc..

*Table 8.1 FSD's Outputs, 2007-14*

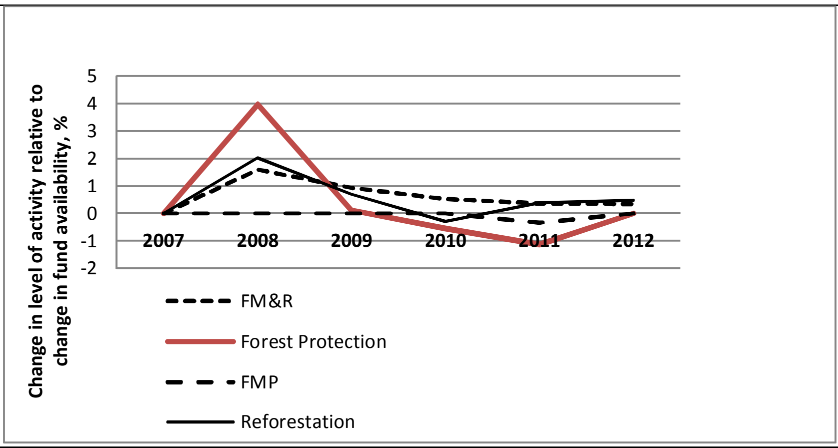
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| **Benefit Sharing Agreements signed** | | | | | 154 | | | |
| **Degraded forest lands planted (in ha)** | 16,081.32 | 11,114.83 | 11,778.03 | 18,849.04 | 11,550.90 | 9,620.07 | 5,784.86 | 8,298 |
| **Encroaching farmlands detected and/or destroyed (in ha)** | 549.98 | 214 | 526 | 729 | 1,014 | | | |
| **Natural forest production (m3)** | 1,114,329 | 841,674 | 721,262 | 769,154 | 820,732 | 789,441 | | |
| **Forest reserve management plans implemented** | | | | | 20 | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Globally Significant Biodiversity Areas Mgt plans implemented** | | | | | 30 | 36.43 | | |
| **FMP (area covered)** | 16,081.32 | 11,114.83 | 11,778.03 | 18,849.04 | 11,600.90 | 9,656.50 | | |

*Source; FC Annual Reports, 2007-2014*

Table 8.1 provides information on quantitative outputs that are related to the objectives of FSD which include forest protection, forest harvest regulation, forest management planning and reforestation. Given the environment of declining budget allocation and limited opportunities to finance the same volume of activities in subsequent years, as declining real spending illustrate, FSD's spending priorities emerge from Figure 8.2.

*Figure 8.2: FSD Prioritization of policies, 2007-12*




*Source; Computed with data for FC Annual Reports, 2007-2014*

The trends illustrated in Figure 8.2 (and others that follow) embody analysis of changes in outputs relative to changes in real expenditures over the base year. [48] A positive movement in the trend would represent outputs and real expenditure changes moving in the same direction. Depending on direction of change in real expenditure, an interpretation could be made on whether output levels were increasing or declining. From this analysis, a distinct change in relative priority settings is discernible from 2009. FSD's priorities for forest harvest regulation (harvest levels assumed to reflect increased pressure on FSD regulatory oversight) over the initial period (2007-8) and reforestation, shifted to forest protection and forest management in the descending order. Forest reserve and globally Significant Biodiversity Areas (GSBAs) management planning had not featured in FSD activities in the period 2007-2010.

**Discussion of Efficiency**

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[48] The indicators used to plot the graphs are derived from observed changes in annual volume outputs relative to the base year output volume, as a result of changes in the corresponding year's real expenditure level relative to the base year real expenditure. So the indicators plotted show the "elasticity of output volume" with respect to changes in levels of real expenditure.

Outputs of FSD include replanting of degraded forests. FC's 2011 Annual report indicate a total expenditure by FSD in 2010 and 2011 on its plantation programme amounted to approximately GH¢ 2 million.

The resulting annual average spending of FSD and RMSC over the 2010-11 period on FM&R amounted to approximately GH¢ 21 million. For FM&R in total forest reserve area of 1.7 million ha and harvest regulation in approximately 47,000 ha of forest remnants in Off-forest reserves[49] it cost the FC GH¢12.60 $ha^{-1}$ or about US$ 8 $ha^{-1}$ In the same period, stumpage collection together amounted to GH¢9.5 million.[50], This value represents total amount collections and not FC's share retained as reported. Thus, on the average, FC's collection, reported to be about 95 per cent was GH¢5.5 $m^{-3}$ (US$3.7 $m^{-3}$). It is important to appreciate the context of these comparisons. According to LI 1721, stumpage is revenue shared between landowners and FC. But FC earns only 50% of what it costs the institution to "regulate and manage" forests. It is noted here that FC undertakes activities that result in intangible benefits whose values are not captured under current policy analysis.

Observation of a shift in FSD priorities from FM&R towards forest protection is in the right direction, making devolution of selected FM&R functions to the private sector worth considering. Studies in 2007 pointed to activity areas where the private sector was found to be more efficient.[51]

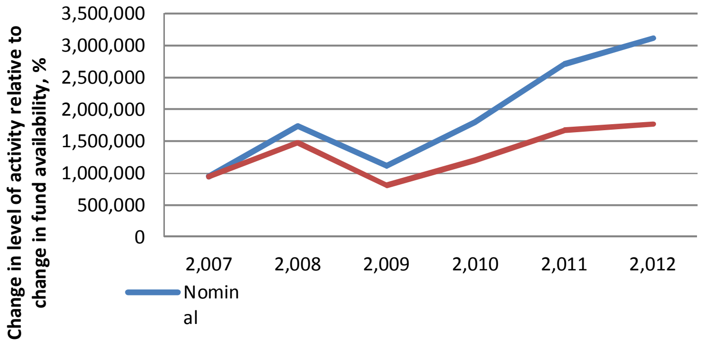
**Wildlife Division**

Over the period 2007-2012, WD's spending showed generally rising trends in nominal and real terms. Nominal and real budget executions in 2012 were about 230 percent and 90 percent, respectively. However, increased annual availability of funding was not adequate to compensate for year by year real loss.

*Figure 8.3: Comparison of WD nominal and real expenditures, 2007-2011*

[49] Birikorang et al., 2001, Op cit
[50] Birikorang, G, 2015, op cit..

[51] Birikorang, et al, 2007, op cit.




*Source: Computed with data for FC Annual Reports, 2007-2014*

In the same period, quantitative outputs reported by WD are presented in Table 8.2. In addition to these, WD reported on a number of qualitative outputs that sought to improve wildlife physical assets and implement governance reforms through renewal of WD fees which have been presented as Appendix 9.

*Table 8.2: Quantitative Outputs of WD, 2007-14*

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| **Protected Areas (Pas) covered in patrols (sqkm)** | 18,740 | 21,470 | 28,630 | 35,540 | 38,240 | 232 EPMD[52] | 114 EPMD | 195 EPMD |
| **Poachers arrested and prosecuted (Number Arrest )** | 128 | 110 | 118 | 128 | 115 | 111 | 110 | 118 |
| **(Number Prosecuted)** | 79 | 77 | 78 | 65 | 82 | 71 | 65 | 48 |
| **PA boundaries cleaned (km)** | 1308.5 | 1308.5 | 864 | 732 | 687 | 986 | 562 | 815 |
| **PA access roads maintained** | N/A | N/A | 90 | 222.5 | 47.5 | 100 | 280 | 190 |
| **Number of Communities educated on Wildlife Conservation** | N/A | N/A | N/A | 3 | 7 | 18 | 144 | 166 |
| **Number of Schools educated on Wildlife Conservation** | N/A | N/A | N/A | 24 | 65 | 25 | 99 | 107 |
| **Number of Wildlife staff trained (Competence training)** | 136 | 180 | 118 | 119 | 96 | 116 | 66 | 100 |
| **(Academic training)** | 6 | N/A | N/A | 6 | 7 | 1 | 0 | 0 |

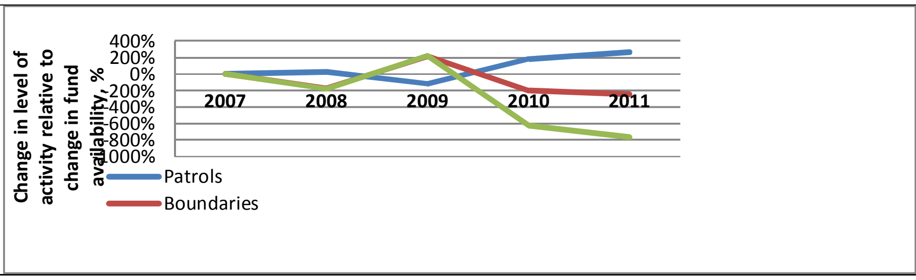
*Source: FC Annual Reports, 2007-2014*

The outputs reported relate to WD's immediate objectives of patrolling protected areas, maintaining PA boundaries, awareness creation on conservation among communities and

[52] WD no longer measure patrol effort by area covered in patrols (sq km). Effort is now measured by effective patrol man days per officer (EPMD) as indicated between 2012-2014. The standard or average target is 180 EPMD per officer per year.

capacity building. The outputs reported relate to FSD's immediate objectives of forest protection, forest harvest regulation, forest management planning and reforestation. In the context of WD's fund availability illustrated, WD's spending priorities emerge from Figure 8.4.

*Figure 8.4: WD Prioritization of policies, 2007-12*




*Source: Computed with data for FC Annual Reports, 2007-2014*

By a similar analysis, the trends illustrated in Figure 8.4 also show a break in priority setting after 2008. A distinct change in relative priority settings is discernible from 2009. The period 2007-8 was one of unstable WD priority setting, with training and education of both WD staff and community stakeholders being relatively important in spending. From 2009 WD's priorities seemed clearer, shifting more to PA patrols and boundary cleaning.

WD is responsible for managing an estimated 1.26 million ha of PA[53]s. The key output of the Division noted is Protected Areas (PAs) covered in patrols which have more than doubled to about 38,000km$^2$ in 2011. This is a multiple of the total area of PAs.

The annual average WD spending on Goods and Services between 2010 and 2011 was approximately GH¢6.9 million or about GH¢5.5 ha$^{-1}$ (US\$3.6 ha$^{-1}$[54]). In the case of Kenya, a total annual operating cost of US\$15 million is incurred on managing National Parks of a total area of approximately 57,000km$^2$. Their average cost stands at US\$2.6 ha$^{-1}$[55] Though wildlife does not contribute any significant revenue towards FC's IGF, it does contribute important external economies to the tourism sector. Wildlife also contributes significant wealth in the informal sector, particularly from bush meat trade. According to a joint CRMU and WD study, the annual domestic trade in bush meat is estimated at US\$140 million[56]

**Timber Industry Development Divisions**

[53] World Bank, Agence Française de Développement & Royal Netherlands Embassy, "Ghana Country Environmental Analysis;" 2006 (New reference for Wildlife total size of Protected areas (Wildlife)

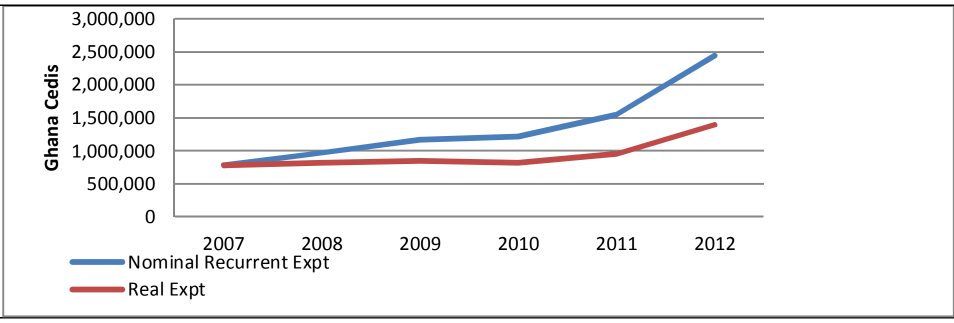
[54] This is the average cost of patrolling 1.2 6million ha of PAs of GH¢0.71 ha$^{-1}$converted to dollars at the average exchange rate between 2010-11 period of GH¢1.5=US\$1

[55] Cheung,H., "Tourism in Kenya's national parks: A cost-benefit analysis" https://journal.lib.uoguelph.ca/index.php/surg/article/view/2019/2684)

[56] CRMU & WD (2004) "A Briefing Document On Collaborative Resource Management in Ghana CRMU& WD (2004) "A Briefing Document On Collaborative Resource Management in Ghana

Over the period 2007-2012, TIDD's nominal spending showed a rising trend, with significant increase in 2012, about 60 percent above 2011 budget execution and 210 percent above the base year. . Budget execution after this development, not covered by Figure 8.5 has dropped to about a third of the 2012 level. Budget allocation increases, on the other hand, have not compensated for loss in real values of spending. In contrast, the sharp rise in nominal budget execution in 2012 was accompanied by a decreasing ratio of real to nominal spending of 62 percent and 57 percent in 2011 and 2012, respectively.

*Figure 8.5: Comparison of TIDD nominal and real spending, 2007-2012*




*Source: Computed with data for FC Annual Reports, 2007-2014*

In the same period, outputs reported are presented in Table 8.3. TIDD also reported on a number of qualitative outputs that focused on creating an enabling environment for industry response, as well as the organization of a wood fair and has been presented as appendix 10.

*Table 8.3: TIDD's Outputs, 2007-14*

| | **Contracts approved ($m^3$)** | **WIPC ( $m^3$)** | **Permits issued ($m^3$)** | **Number of registrations, export** | **Number of registrations, Local** |
|---|---|---|---|---|---|
| **2007** | 695,433 | 528,570 | 528,570 | 145 | 57 |
| **2008** | 674,864 | 545,915 | 545,915 | 258 | 65 |
| **2009** | 433,794 | 451,608 | 451,608 | 245 | 114 |
| **2010** | 419,631 | 403,254 | 403,254 | 255 | 95 |
| **2011** | 318,282 | 319,843 | 319,843 | 320 | 102 |
| **2012** | 279,122.17 | 251,246 | 251,246 | 518 | 105 |
| **2013** | 308,509.62 | 275,470 | 275,470 | 338 | 197 |

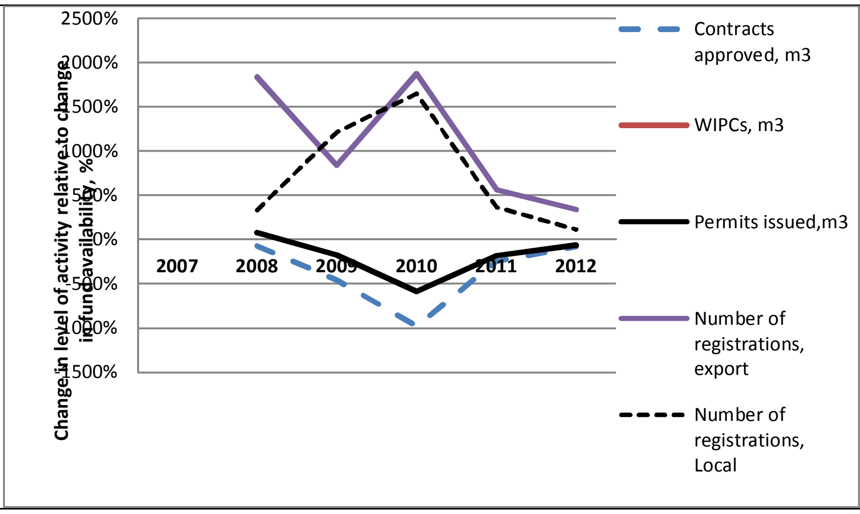
| | | | | | |
|---|---|---|---|---|---|
| **2014** | 497,364 | 356,036 | 356,036 | 368 | |

*Source: FC Annual Reports, 2007-2014*

The outputs reported relate to TIDD's immediate objectives of regulating the timber trade and industry through contract approval, inspection and registration of exporters, buyers and local wood-based enterprises. In the context of fund availability illustrated, TIDD's spending priorities emerge from Figure 8.6/

Figure 8.6 illustrates the case of TIDD attaching relative importance to local business registration over the review period when the export sector was experiencing a downturn. Registration of local enterprises signifies TIDD's attention towards the domestic market and prospects for small and medium enterprises supplying the domestic market and improving livelihoods. The period 2011-12 represents a return to the period preceding 2008 when the export trade regulation commanded a relatively higher priority.

. *Figure 8.6: TIDD's prioritization of polices, 2007-12*




*Source: Computed with data for FC Annual Reports, 2007-2014*

This later development in prioritization is found to be appropriate in light of increased progress in development of Ghana's Legal Assurance System under the VPA.

**Discussion of efficiency**

To standardize cost comparison and discussion of efficiency across Divisions, cost assessments for TIDD are also based on 2010-11 expenditures on Goods and Services. TIDD incurred operating costs (personal emoluments, Goods and Services) of approximately GH¢11.9 million in the period. This puts TIDD costs at about GH¢16.4 $m^{-3}$ (US$11 $m^{-3}$) of wood product exports. In 2007, TIDD costs were estimated at US$5.50 $m^{-3}$ of wood products volume.[57] In round wood

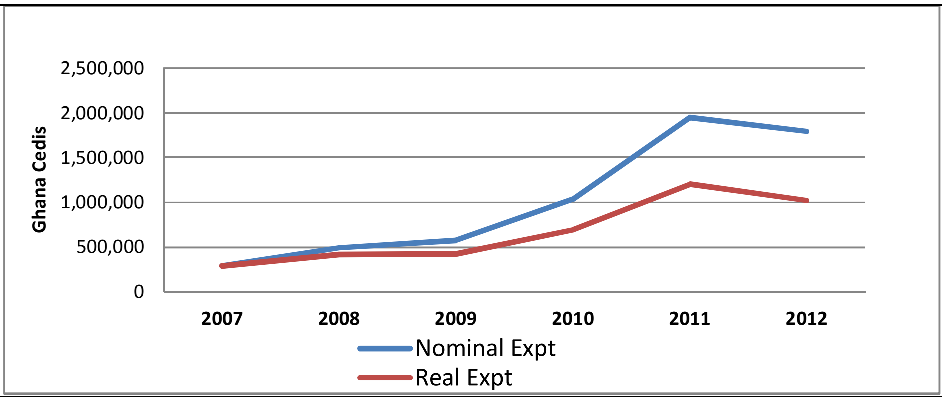
[57] Birikorang et., al., 2007, op. cit

equivalent (RWE), TIDD's current costs amount to some GH¢7 (US$4.6 $m^{-3}$).[58] TIDD's contributions to IGF reported are also at a value of US$10 $m^{-3}$(US$6.70 $m^{-3}$) of wood product exports. Thus, IGF generated by TIDD potentially finances only 60 per cent of its running costs. In 2007, Timber Inspection took a significant toll on TIDD costs. As observed presently, this is a key priority area of TIDD. With the emerging arrangements to implement a VPA-FLEGT protocol, there is likely to be a shift in cost components away from TIDD's direct costs.

**Resource Management Support Center**

Over the period 2007-2012, RMSC's spending in both nominal and real terms showed generally rising trends. The drop in both nominal and real spending levels is observed in 2012. RMSC faced a tighter budget in this year compared with the previous, due to a lower real spending ratio to the nominal than in 2011.

*Figure 8.7: Comparison of RMSC's nominal and real spending, 2007-2012*




*Source: Computed with data for FC Annual Reports, 2007-2014*

The immediate objectives of RMSC outlined earlier in this review suggest a corresponding range of outputs. However, the RMSC was only able to indicate one quantitative output, namely check survey of government plantation sites covering 34,385 hectares in 2011.

**FC Training Center**

Over the period 2007-2012, FCTC operated as Wood Industry Training Centre (WITC), an industry training infrastructure wing of TIDD. In this period, the Centre experienced generally declining trends in nominal and real spending levels, though there were increases in spending in 2011 and 2012, by an annual average of 60 per cent over 2010.

*Figure 8.8: Comparison of FCTC's nominal and real spending, 2007-2012*

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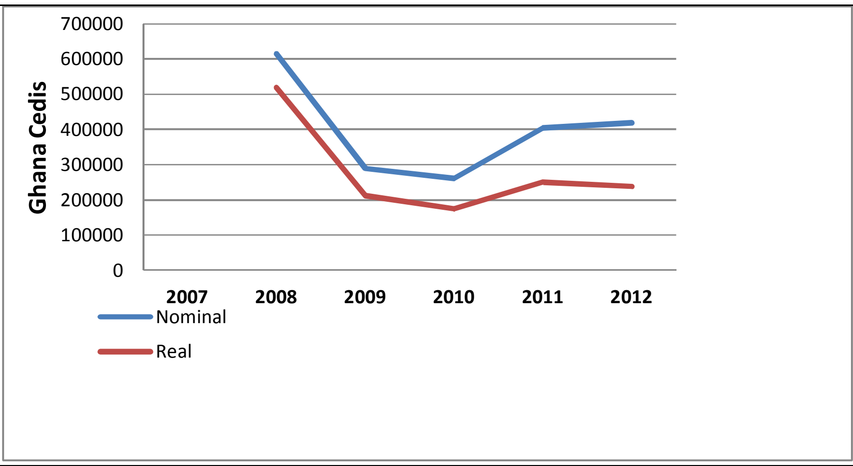
[58] TIDD's average cost is derived from total Personal emoluments, Goods and Services expenditures for 2010 and 2011 of approximately GH¢11.9 million and total wood product exports of approximately 723,000 $m^3$ The Roundwood equivalent (RWE) calculation assumes a total wood recovery of 43 per cent referenced from (Birikorang et al, 2007)




*Source: Computed with data for FC Annual Reports, 2007-2014*

In the same period, outputs reported by FCTC are presented in Table 8.4

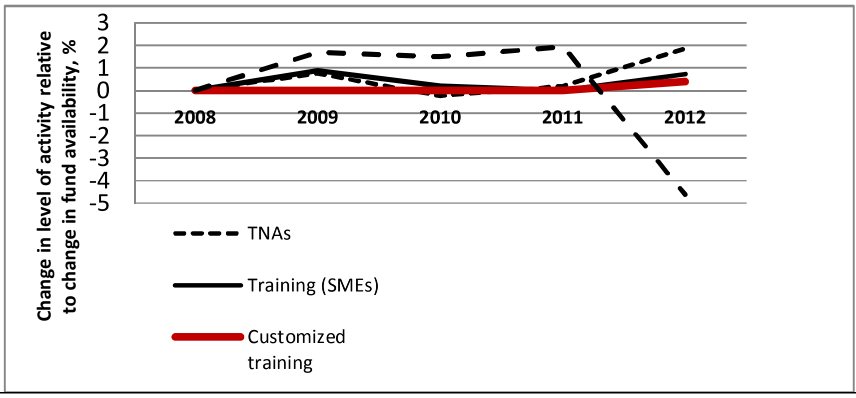
*Table 8.4: FCTC's Outputs, 2007-14*

| | TNAs/Collaboration with MCEs/DCEs/Carpenters Association | Training (SMEs) | Customized training | Collaboration with international institutions | Training agreements | Technology Transfer |
|---|---|---|---|---|---|---|
| 2008 | 18 | 331 | | 1 | | 2 |
| 2009 | 10 | 156 | | | | |
| 2010 | 21 | 288 | | | | |
| 2011 | 16 | | | | | |
| 2012 | | 200 | 258 | | 2 | 7 |
| 2013 | | 35 | | | | 1 |
| 2014 | | 135 | | | | |

*Source: FC Annual Reports, 2007-2014*

The outputs reported relate to FCTC's immediate objectives of providing short-term and refresher technical courses for the forestry and wildlife sectors and assisting the wood industry with appropriate technology in downstream processing. In the context of fund availability illustrated, TIDD's spending priorities emerge from Figure 8.9.

*Figure 8.9: FCTC's prioritization of polices, 2007-12*




*Source: Computed with data for FC Annual Reports, 2007-2014*

For the FCTC, Training Needs Assessment (TNA) and training of Small and Medium Enterprises (SMEs) were priorities over the period and appeared more sensitive to real resources availability. This is suggested by the near-parallel movements in the trends of real spending and volumes of TNA and SME activities. These however, have not shown significant growth as their responsiveness to fund availability changes is not significant.

**Discussion of efficiency**

FCTC's budget focused mainly on TNAs and training of operatives in the SME category of wood business. Setting its performance against its budget execution, TNA and training per SME would amount to a maximum of GH¢2,400. This is about twice the average rural forestry household income estimated by the Ghana Statistical Service in 2010. This means only two years guaranteed performance on the wood market by the small operator could cover the cost of training, and to some extent indicating a payback period of two years.

**The Ghana Legality Assurance System**

The VPA consultations culminated in the development of systems, design of an institutional framework and the legality principles as three components of the FLEG-T Legality Assurance System. These developments made it possible for Ghana to enter into an Agreement with the EU on implementing a legal compliance regime for timber. The principal output of the initiatives is a Legality Standard. This comprises 4 sub-components, viz (a) a Chain-of-Custody (b) a Verification System, (c) the establishment of a Licensing Authority, which is the TIDD and (d) the appointment of an Independent monitor

**Ghana's REDD-Plus Readiness**

Broadly, the CCU has been managing Ghana's REDD-Plus initiative over two phases between 2009 and 2014. Phase 1 has involved preliminary analysis, preparation and consultation necessary to put Ghana in the REDD Readiness Stage. The REDD Readiness Preparation was completed in 2012

CCU entered Phase 2, the implementation phase in 2013. Due to delays in disbursement of funds, key activities involving development of a reference emission level and monitoring reporting and verification of changes, a strategic social and environmental assessment (SESA), and a REDD-plus strategy rolled over into 2014. These outputs have been accomplished, with further development required on a national REDD-Plus strategy at the end of the period.

**8.2 Outcomes**

The outputs reported by the FC meet the sector priorities as asset out in the FWP (2012). The outputs are consistent with the specific sector objectives which answer to the purpose of the outputs. The specific sector objectives under which the outputs fall are also consistent with the broader sector objectives. The broader sector objectives are also linked to the national development goals as asset out in the Ghana Shared growth and Development Agenda (see Appendix 13)

The sector objectives against which the FC reports its outputs only suggest indicators of final policy outcomes. Results of field visits under the current expenditure review, buttressed by analysis of the regulatory and legislative framework, and the forest fiscal regime presented in Section 4 point to a number of intermediate outcomes which could inhibit achievement of the desired final outcomes.

The following are the intermediate policy outcomes assessed from the FC's Public Expenditure Review:

***Disincentive for sustainable forest management:*** FSD charges a current stock survey fee of GH¢4,500 or US$1,150 for the average compartment size of 100 hectares. It is an important source of IGF to FSD. Large-scale timber operators suggest that they complement FSD staff and sometimes fill their personnel gaps in forest management activities at the compartment level, and consider the fee as a transaction cost in the excess. The new rate represents about 20 per cent of the average stumpage fee rate, and is a disincentive for sustainable forest management, given the depletion of high-valued species and increased predominance of low-valued species in production forests, and the recent increase in stumpage fees.

***TIDD readiness to support Ghana's Legality Assurance System under VPA:*** Output data suggest a general downturn of contract volume approvals with declining export volumes. In this case TIDD could claim credit for effectiveness from the relatively rising trends in contract approval, WPICs and Permits. TIDD from its priority area is demonstrating readiness to support verification of legal origin and legal compliance under the Legal Assurance System of the VPA.

***Enforcement under the Ghana Legality Assurance System (LAS):*** A legislative Instrument L.I. 2184 has been issued, providing for the establishment of a Timber Validation Committee (TVC). Among other functions, the TVC carries the responsibility of ensuring that the Timber Validation Department (TVD) of the FC, responsible for verification and validation of applications for licensing under the LAS, performs its functions in a credible, transparent and independent manner. Under this Regulation the TVD becomes the hob around which enforcement will rotate. The institutional component comprising forest regulatory organs must all credibly comply with provisions of L.I. 2184

***Enhanced collaborative wildlife resource management:*** Though WD has since 2009 placed more emphasis in its budget to protection, collaboration with communities is still important. This will enhance local communities' commitment to protected area management and conservation

***Slack in degraded forest lands planted:*** Rate of replanting of degraded forest was not maintained in the review period. Average annual replanting for the period 2007-2011 was approximately 14,000 ha and the period 2011-14 approximately 8,000 ha. It is widely reported in FC Annual reports about delays in releasing funds for plantation programmes which are seasonal and require timely releases of funds. The observed levels and decline in FSD real budget execution also meant constrained capacity to meet targets. Making up for lower achievement ratios due to establishment failures also mean higher establishment cost per hectare for the Division. The inability to meet contract terms with communities as a result of late releases or decline in real budget resources threaten the trust that community stakeholders, as collaborative partners in tree planting have in the FC.

***Perverse incentive in private sector replanting in degraded reserves:*** Some successful large scale plantation development initiatives have been achieved by the private sector, this including sometimes the resolution of tenure disputes among households and communities collaborating in these developments. Generally, performance has not been encouraging as permission to grant felling rights to would-be tree planters to remove tree remnants before planting eventually generating perverse incentive that affects motivation to do replanting.

***Potential threat of harvesting below felling limits below:*** The decline in legal forest harvest is generally associated with the decline in resources, but this explanation overlooks the inability to use substitute lesser known species that can be sustained over the next felling cycle. Another issue is how operators are keeping within felling limits. Exploitation below felling limits could give same results as lower harvest volumes but higher number of trees felled. Where post-logging inspection and forest monitoring is constrained by budgets, as in the case of RMSC, the forest integrity is not guaranteed.

***Negative wood balance:*** Illegal logging by the informal sector and how it drives the sector's negative wood balance threaten forest integrity. It also presents a challenge to the National Legality Assurance System that is yet to be roll-out from the pilot stage.

***Additional saw-milling capacity that runs counter to policy:*** The policy of engaging trained artisanal millers as an option for supplying timber to the domestic market is not meeting the effectiveness of the policy option. According to TIDD, the use of mobile mills (Wood Mizers) in concessions of folded-up companies has surfaced. The capacity of these mills rather adds to the existing industry capacity, and displaces potential artisanal millers, who are supposed to be converted from illegal chain saw operators.

***Forest reserve management plans implemented:*** The pace of Forest Management Planning initiated in 2011 is encouraging as managing and safeguarding the remaining 'in-tact' forest reserves demands an arduous task and had previously proved a challenge for the Regulator. It is observed that at least over the period 2000-2005, no management plans had been prepared due to limited professional staff and the higher overhead costs of using non-professional staff over longer periods for drafting plans.[59]

***Persistence of forest conflict:*** The statistics on encroaching farmlands destroyed is indicative of an enhanced enforcement. On the other hand it also suggests an emerging increase in forest conflict.

***Ghana's REDD-Plus Readiness***: Extensive consultation with stakeholders conducted between 2009 and 2012 and One sub-national and landscape level research and consultation by IUCN, as well as a SESA study commissioned by the FC have resulted in identification of a number of options, including multi-dimensional treatment of benefit sharing, for addressing forest conflicts which underlie agriculture's role as a key driver of deforestation. The FIP is expected to be amply informed by these results.

***Non-transparency of MMDAs appropriation of royalty share***: Improvement in the rate of revenue collection in recent years over the last decade is termed successful, rising from 65 percent of the assessed amount in 2008 to 95 percent in 2011 and 109 percent in 2013[60]. This notwithstanding, distribution of MMDAs share of royalties is still considered by civil society as not trickling down and impacting on households, and also non-transparently appropriated. These conditions run counter to securing the support of forest communities for sustainable forest management and conservation.

***TIDD is still a step behind the wood industry:*** TIDD is still a step behind the wood industry in terms of technology, technical skills and accessibility to operational research in global wood product markets. TIDD export levies were reduced in 2006, also at a time when it had no independence in allocating resources to its determined priority areas. TIDD budget releases have not compensated for its potential budget gaps. For instance TIDD's expenditure was 35 per cent of IGF in 2007 but only 9 per cent in 2014. The observed lower than 10 per cent content of high valued wood products in exports, and hence the unrealized aspiration of "Higher value from lower volume" under the Forestry Development Master Plan of 1996-2020, means a potentially

[59] Birikorang, et al , 2007. Op cit

[60] Independent Evaluation Group/World Bank, "Project performance assessment report: Ghana natural resources and environmental governance;" June 30, 2014.

emerging pressure on substitute species as they come on the market. There is the risk of reduced conservation of forests over the next felling cycle. Promoting industry efficiency and wood utilization across the timber and wood industry did not happen over the expenditure review period.

***Poverty reduction objective among SMEs is largely unachieved*:** The FCTC, existed as WITC during the expenditure review period and operated as a training wing of TIDD. Training needs Assessment and training of SMEs were priorities over the period, but these did not show significant growth as they were largely driven by fund availability. For the period, the former WITC undertook TNAs in 65 Districts and trained in total 1,145 SMEs. This represents on the average 18 training results of each TNA, which is less than 10 per cent of WITC's annual capacity. The Wood Products Association of Ghana (WAG) members consulted observed a sharp decline in collaboration between the Association and WITC. WAG benefited from TIDD's training in wood processing skills, enabling them to get greater access to local markets, including public sector contracts which are no longer directly available. Their reliance on illegal lumber under the current condition implies increased inefficiency and higher costs in the use of substitute, and sometimes unfamiliar species now on the market. These are no longer available. From their perspectives, livelihoods of informal operators linked up with household set ups, family livelihoods have been adversely affected. Lower utilization rates among WAG also means increased pressure on forests for the supply of illegal lumber to the domestic market. According to TIDD Regional office in Kumasi, the principal cause is limited budget.

FIP observes a number of challenges as confronting the current policy and regulatory framework (Box 8.1)

*Box 8.1: Weaknesses in existing Policy and regulatory framework*

- Weak supportive fiscal regime
- Lack of clear tenure, tree and carbon rights
- Inadequate enforcement of regulatory policies
- Insufficient financial resources and manpower for effective forest management
- Inadequate political will to change the status quo or re-balance the power of the timber
- Less emphasis of industry on the well-being of forest dependent communities
- Illegal timber harvesting and chainsaw production of lumber
- Over-capacity of the supply chain and under-pricing of wood products
- Misuse of power by some traditional leaders and public officials in order to benefit from
- Encroachment into forest reserves
- Absence of integrated research and impact assessment
- Inadequate information to inform decision making and management of natural
- Inadequate resources

Meeting these challenges means addressing the poor incentive structure analyzed in Section 4. For the Forestry Development Master Plan under review and future budgets, targeting these issues for intermediate budget outcomes should form the basis of formulating short-term action plans necessary to set on the long term trajectory of reduced deforestation and forest degradation set under Ghana's REDD+ Agenda.

## 10.0 Conclusion and Recommendations

### 10.1 Conclusions

There has been a steady increase in annual forestry expenditure over the years. However, the percentage of forestry expenditure to total national expenditure has declined which may signify that the government may not be paying serious attention to the sector.

While the process of budgeting in FC has improved in recent years, major challenges in the areas of budget preparation, budget approval, prediction, execution and auditing remain. The orderliness and participation in the annual budget process as well as public access to key fiscal information appear fairly satisfactory. However, a major concern regarding budget formulation and preparation is the fact that the budget guidelines issued by MoF although comprehensive and clear, does not reflect ceilings approved for the unit. This, many budget planners believe, makes nonsense of the budget preparatory process as budget officers after painstakingly preparing budget for the various items, and submitting, but at the end see a huge slash with no regard to the budget lines.

Predictability in the availability of funds for commitment of expenditures and reliable cash flow forecast indicators is poor in the forest sector budgeting process, undermining the credibility of the budget process. Concerns of unpredictability of funds and delays in the release of funds for planned projects were rife among all FC's Divisions and units constraining their ability to commit to planned expenditure. The Commission is unable to plan and commit expenditure for at least six months in advance in accordance with the budgeted appropriations, leading to weakness in budget execution.

It is therefore clear that budget execution is weak within FC and its various Divisions, particularly as the composition of actual expenditure varies considerably from the budgeted expenditure. This, according to PEFA, does not make the budget a useful statement of policy intent. Moreover, although expenditure controls and an effective internal audit control system exist in FC, challenges of implementation of audit reports remain. There is limited or no follow up on the report's recommendations, weak accountability, and the same problems keep repeating year after year.

Like in many public sector institutions, majority of the expenditure goes to wages and salaries leaving very little expenditure for goods and services and assets. Expenditure by the FC on goods and services and assets are largely driven by expenditure by the FSD and the TIDD even though expenditure by the FSD has generally decreased especially after 2011 while that of the TIDD has increased. A notable observation is that budgeted expenditure is always less than actuals. Also, the actual resources needed by the Commission to undertake its activities are often constraint by budget ceilings set by the MoF making it difficult for the FC to achieve its objectives. Furthermore, variance in budgeted and actual expenditure is generally higher in the asset component of the expenditure than the expenditure on goods and services making is difficult for some of the Divisions, such as WD to make the required investments in park sites, etc, in order to increase visitation and consequently revenue.

It was also observed that some of the Divisions such as WD usually spend less than what was budgeted while other such as FSD and TIDD spent more than what was budgeted for them which could indicate poor budget planning for the Divisions by Headquarters. Disaggregated expenditure into Assets and Good and Services indicate that majority of the expenditure of all the Divisions goes into goods and services depriving the sector of the relevant investment needed to raise revenues.

Over the period under consideration, GoG has provided the majority of the finance for forestry activities and its financing has been increasing while financing from IGF and donors has been decreasing. The FSD and the TIDD are the major contributors of IGF and on the average have contributed about 87% of IGF. The Commission is also doing well by meeting IGF targets even though there are differences in efforts in IGF collection among Divisions which may be attributed to the inaccuracies in forecasting techniques of the different Divisions. IGF from the WD and the FSD has increased consistently while that of TIDD has generally experienced a decrease between 2007 and 2014, a decrease that might be attributed to reduced timber export.

The reduction in IGF and donor funds in the midst of decreasing timber and other forest resources brings to the fore the issues of having sustainable financing for the forestry sector that can be achieved through a paradigm shift to the development of PES that has enormous opportunities to generate sustainable finance for the forest sector.

With respect to the prioritization of funding it was observed that the FC Divisions and the FCTC have all simultaneously reviewed their priorities in 2009, but other specified output related activities continue to be financed in terms of reduced financial capacity. Late release of quarterly approved budget in any one year and across the expenditure review period is a feature of the budget cycle. This adversely affected targets over the period when real financial resources were also declining

Undertaking forest management and FM&R has become an expensive business for FSD, relative to the historical levels of revenue it is legally mandated to collect in order to finance this role. Other potential revenue sources, particularly PES are targeted under the Forest and Wildlife Policy (2012). Stumpage revenue will still be important, but sustaining its potential depends on the political will to review it in line with legislative requirements.

Wildlife's intensified patrols in PAs and community stakeholder engagement on conservation is at a cheaper cost and could make greater impact from improved budget support. Additionally, the TIDD has the potential to impact conservation and improve contribution of higher value production in both export and domestic markets while the FCTC has the potential to impact livelihoods but has not had the financial opportunity to demonstrate its potential effectiveness.

Furthermore, the FC's budget planning and monitoring is based on long term performance indicators (final outcomes). This runs the risk of reversal of expected results. In contrast, a focus on intermediate outcomes that places emphasis on engaging actors in the context of their resource rights and obligations, on annual basis, thereby addressing policy reform measures in intervening years would be appropriate.

Predictability of FC budgets firstly depends on securing a sustainable fiscal contribution from capturing resource rent on the one part and pursuing sustainable returns from total forestry. Secondly, controlling FC's costs and refocusing on critical core functions, while devolving elements of forest management activities to the private sector, where the latter has a competitive edge is seen as a means of enhancing equitable distribution of resource rent and engaging stakeholders in forest conservation.

Plantation development has not fared well and become, ex post, an expensive business for lack of sustained financial outlay to timely finance plantation activities. Efforts to build the future forest asset is concluded to lack one important condition: a simultaneous conviction of the MoF to support long term investment in forestry, the MLNR to champion the cause of FC for adequate financing and to demonstrate political commitment to forest sector reforms and the FC to demonstrate transparency and accountability to resource owners and the State.

### 10.2 Recommendations

It must be noted that ensuring a balance between forest resource exploitation and the sustainability of forest revenue is achievable though not an easy task and forms the major directions of the current FWP that places more emphasis on PES to some extent. The multi-dimensional nature of the problem suggests that measures should be multi-faceted, inculcating legal, institutional and administrative changes by all stakeholders as well as co-operation from all stakeholders. Such measures should include but not limited to:

- Satisfy the legal provision of reviewing the stumpage fees
- Increase the level of collaboration with forest communities in order to improve enforcement
- Enforce prescriptions for sustainable forest management
- Initiate systems to discourage rent seeking including the engagement of FC staff in the chain chainsaw business

- Resource the law enforcement agencies to deal with illegal chain sawing
- Resource RMSC to enforce forest standards and post logging inspection
- Move FCTC closer to the wood industry, its capacity up-graded and the wood industry's co-financing sought in mutually agreed wood technology programmes
- Resource the FCTC/WITC to retrain the tertiary sector by exposing them to training in modern technology and facilitate their retooling
- Put in measures to facilitate investment in the tertiary sector of the industry in order to increase efficiency and increased value addition
- Increase resource to the forestry sector by Government and development partners

- Consider adopting PES options for increased forest revenue particularly from tourism and watershed protection.

- Assess some services of the FC that can be privatized or outsourced to the private sector in order to reduce expenditure
- Revise the forecasting system in the FC to enable them provide better forecast of expenditure and revenues
- Ongoing programmers such as the GIFMIS to improve public sector financial management should be completed to impact positively on the execution of budget within the forestry subsector.
- Prepare, publish and evaluate budget sector outturns annually. The adoption of program based budgeting (PBB) should help the reporting and evaluation of FC expenditure outcomes. This should include regular public reports on FC budget outturns, using economic and functional classifications.
- Ensure that ARIC and Public Account Committee implement recommendations of the GAG without delay.
- Improve budgetary allocation and releases to the Commission to enable it effectively build capacity to deliver on its mandate of conserving the forest and at the same time increasing revenue from the sector.
- Ensure that Business Planning and budget formulation include drawing out of work plans that focus on immediate policy outcomes and develop their internal indicators consistent with the indicators set under the national development agenda
- Ensure that the direction of prioritization within FSD go along with redefining its core functions and devolving responsibility for key forest management activities to the private sector industry
- Facilitate cross-consultation between planners and operational level decision-making personnel ahead of budget preparation, to bring better appreciation of operational level perspectives and achieving better informed allocation processes.
- Ensure that Board opinion and/or endorsement of FC budget is sought before submission to MLNR
- Ensure that Plantation development and its financing is given a new outlook, by MoF allowing FSD to draw extra funding, under an "unhindered" clause, from plantation revenue retained by MoF.
- Ensure that TIDD financing is improved on merit of the continued unattained conservation, species promotion and optimization of the wood product value chain
- Simplify and streamline the forest fiscal regime. However, this must be preceded by addressing timber laundering and stumpage leakage. It will also require resourcing RMSC to enhance digitization of forest inventory data
- Consider integrating SRA into a medium to long term review of forest revenue distribution since it raises transaction costs for forest stakeholders (See Action Plan)
- Ensure that the Forestry Master Plan under review embody a strategy of devolving off-reserve forest control to local governments.
- Consider introducing and institutionalizing the 1994 Interim Measures to Control Illegal Timber Harvest.

- Put in measures to reduce lobbying by the industry and revert to the payment of Timber Rights Fee.
- Institute incentives for the wood industry to be efficient and to promote non-popular species
- Institute legal and practical actions to ensures that trade debtors and timber contractors pay their debts
- Undertake refresher courses for accounting staff of the FC and its Divisions
- Institute measures to ensure effective communication at all levels
- Fasten the implementation of the internal and external auditors' recommendations.

**Recommendation of an action plan**

From the recommendations outlined above, key strategies and short to medium term actions, suggesting what changes must take place, how to bring them about and which agencies must be responsible are presented as table 10.1.

Table 10.1: Recommendations (Action Plan)

| Typologies | Strategy | Short term Actions (2014-2016) | Intermediate outcome | Medium term actions (2017-2020) | Expected Final Outcome | Agency Responsible |
|---|---|---|---|---|---|---|
| Policy | Improve timber pricing | • FC to comply with legislation on stumpage adjustment (L.I. 1649)<br>• MLNR to oversee compliance | • Maintenance of real stumpage level<br>• Protection of real returns to forest owners | • Restore TUC/TRF for concession holders- conversion- and new TUC applicants | Real revenue losses avoided | MLNR/FC |
| | Equitable distribution of forest revenues | • Develop:<br>(a) consensus on best practical option for recognizing land owners' ownership and management rights, resource access rights of communities and farmers rights to trees on farms in OFRs<br><br>(b)FC Synthesis of existing studies' results and CSOs perspectives on inequitable distribution of forest benefit and negotiation of a transparent administrative framework to transfer significant portion of DA's share of royalties to community-determined development projects and<br>(c) Subject to (b) materializing FC to facilitate CSOs negotiation with timber operators to make direct payments to community project account under DAs' supervision | • Draft ministerial memorandum to support Parliamentary Bill for amendment of Acts 547, 571, and 617, and Legislative instruments 1649 and 1721<br>• Improved equity in distribution of forest benefits<br>• Better tracking and monitoring of SRA payments | • MLNR submission of Parliamentary Bills to seek legislative amendments for the purpose of recognizing and putting into effect the exercise of forest rights by forest owners<br>• Provision under L.I. to legally regularize sharing of MMDA's portion of royalty<br>• DAs to coordinate transfer of forest benefits through implementation of "forest label" projects at community level | • Local support for SFM and conservation<br>• Improved incentives for engaging in tree planting in OFRs | MLNR/FC/ MLG&RD/ DAs |
| | • Incentives to support Industry adoption of | • TIDD to coordinate, consolidate and strengthen Industry leaders independent | • Increased responsiveness of industry leaders to LUS/LKS market | • Review incentive structure for broader categories of timber species | • Enhanced market value of LUS/LKS and potential stumpage | MLNR/FC/ TIDD |

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|---|---|---|---|---|---|---|
| | LUS/LKS | adoption of newly emerging species<br><br>• Sector to propose to legislation to offer tax rebates on wood exports in selected LUS/LKS | promotion measures | • Implement a medium-term wood market species development programme | • Enhanced industry turnover and potential contribution to State revenues and forest owners' share of potential stumpage<br>• Reduced pressure on high and moderate market value species | |
| | Domestic wood supply from artisanal milling | • Implement to the letter specific recommendation of EU-supported study of policy options for supply of lumber to the domestic market | • Improved livelihoods of converted informal chain saw millers | • Review concession holdings, corresponding wood processing capacity of holders and take measures to improve timber resource access (both natural forest and plantation timber) of artisanal millers | • Improved incentives for legal harvesting bin informal sector | MLNR/FC |
| | Improved financing of plantation development | • Review plantation establishment cost and share with MoF to support future budget appraisals<br>• Develop and publish procurement rules and procedures for FC contracting out plantation development to the private sector. T | • Improved transparency and efficiency in spending on plantation<br><br>• Improved credibility in plantation budget proposals and greater expectations of improved budget allocation and execution<br>• Shared FC-Private sector experience in competitive management of plantation development | • Bring lessons of experience with private sector collaboration to GoG plantation development programme in off-reserves | • Increased national availability of wood fibre resources<br>• Reduced pressure on forest reserves | MLNR/MoF/ FC |
| **<u>Institutions</u>** | Improving capacity of RMSC for inventory management, harvest monitoring and post logging inspection | • Enhance computerization of forest stock data and inventory management systems<br>• Implementation of "Smart" harvest | • Partial (Forest Management Unit-specific) elimination of stumpage leakage and timber laundering<br>• Improved quality service delivery<br>• | • Complete computerization of forest stock data and inventory management systems | • Sector-wide elimination of stumpage leakage and timber laundering<br>• Establishment of transparency and credibility in reporting under EU-FLEG-T | FC/RMSC |

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| | | monitoring and post logging inspection | | | | |
| | Devolution of FM activities to the forest industry and redefinition and refocusing of FSD core functions | Undertake transitional measures to devolve selected forest management functions to private sector | • FSD defines areas of new core functions and their competitiveness<br>• Reduced industry transaction costs | • Complete devolution process<br>• FSD focuses on capacity development in redefined core functional areas | • FSD focused on revised core functions<br>• Reduced industry transaction costs<br>• Improved competitiveness of FC in FM&R<br>• Enhanced stakeholder participation in Forest management and conservation<br>• Clarity in assumption of private industry responsibilities for forest certification | FC |
| | Devolution of OFR control to Local Governments | Agreement with Local government on (a) on transitional measures for transfer of OFR control and (b) institutional arrangements for local government compliance with FC forest standards and FC log control procedures and monitoring and (c) negotiated stumpage fee to be retained by FC to cover its costs under the new control regime. | • Transitional FC-Local government administration of off-reserve timber harvest | • Complete transfer of OFR control to Local government | • Local support for conservation<br>• Improved incentives for engaging in tree planting in OFRs | MLNR/FC//<br>MoLG&RD/<br>DAs |
| | Upgrading WITC institution to help develop intermediate industry skills | Organize training of cadre of trainers to expand capacity for transfer of carpentry and joinery skills to SMEs on the local market technology professionals to offer training in wood processing and treatment equipment<br>Upgrade training infrastructure, including supply of demonstration | • Improved capacity for long-term SME training<br>• WITC position upgraded to assist middle level formal mill personnel | • Continue short term training and recruitment of wood newly emerging species professionals to serve training needs of formal and informal wood industry<br>• Continue to upgrade WITC infrastructure to support wood industry<br>• FC takes steps to revert | • WITC ready to pursue mission as entre of Excellence in wood industry training in West Africa<br>• Formal industry confidence in WITC re-built<br>• WITC becomes attractive to Industry participation | |

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| | | | | WITC to TIDD control<br>• | | |
| | Improving industry efficiency through technology and industry modernization | •TIDD builds capacity for supporting industry through Operations research, milling and processing technology/Industry configuration for plantation timber utilization<br>•Engage institutional technical assistance expertise in technical/market product development | •TIDD positioned at par with industry<br>•Increased TIDD self-confidence<br>•Industry responsiveness to policy and institutional support improved | • TIDD to lead and sell to industry development of an integrated forest industry re-structuring strategy in collaboration with forestry research institutions and academia.<br>•Funding provided for re-structuring | •Wood technology and allied skills transfer to industry accomplished<br>•Processing technology for plantation timber introduced<br>• Highly efficient forest industry<br>•TIDD is positioned to provide leadership in directing integrated forest industry restructuring | |
| **PFM** | •Improved FC budget preparation, execution and management<br>•Fully mainstream GIFMIS | • Develop work that focus on immediate policy outcomes<br>• Develop indicators consistent those set under the National Development Agenda<br>• Facilitate cross-consultation between planners and operational level decision-making personnel ahead of budget preparation Ensure Board approval of budgets are obtained before submission to MLNR<br>• Strengthen budgeting capacity of FC's Business Planning Units | • Improved budget formulation<br>• Better informed budget allocation process<br>• Improved budget execution and<br>• Desirable service delivery outcomes | •Continue capacity building of FC budgeting staff<br>•Intensified MLNR monitoring of FC Budget performance | • FC's Budget comprehensiveness, transparency and credibility attained | MLNR/FC |

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|---|---|---|---|---|---|---|
| | Ensuring FC's accountability for the public financial management and transparency | • Preparation, publication and evaluation of Sector budget outturns annually.<br>• Ensure that ARIC and Public Account Committee implement recommendations of the GAG without delay.<br>• Hasten the implementation of the internal and external auditors' recommendations. | • Demonstration of Sector agencies' readiness to be held accountable | • FC Board taking steps to ensure arrears in annual reporting of FC's performance through MLNR to Parliament in accordance with Financial Administration Act are cleared and meet subsequent years' timing | FC subjected to self-scrutiny | MLNR/FC |

## List of Appendices

### Appendix 1: Detailed Terms of Reference

Natural Resources and Environmental Governance (NREG) Technical Assistance Project. Terms of Reference, Public Expenditure Review of the Forestry Sector

### Background

The Natural Resource and Environmental Governance (NREG) Sector Budget Support Programme has supported the Government's 5-year program to address governance issues in forestry and mining and environmental management. The objectives of the prgramme were to (a) ensure predictable and sustainable financing for the forest and wildlife sectors and effective forest law enforcement; (b) improve mining sector revenue collection, management, and transparency; (c) address social issues in forest and mining communities; and (d) mainstream environment into economic growth through Strategic Environmental Assessment (SEA), Environmental Impact Assessment (EIA), and development of a climate change strategy.

The first phase of the NREG programme enjoyed a consistent donor funding from 2008 – 2014. As a result, there has been a substantial increase in the budgets of the NREG Agencies namely, the Forestry Commission, the Minerals Commission and the Environmental Protection Agency (EPA) over the period. A review of the NREG phase I indicated that the financial resources allocated by the Ministry of Finance to the MDAs implementing the NREG are not always systematically aligned with the public services to be delivered by these agencies. There is therefore the need to take a closer look at the expenditures during the period of the NREG implementation in terms of the activities and investments undertaken with the Sector Budget Support (SBS)-NREG funds. The Ministry of Finance therefore intends to undertake Public Expenditure Review with the focus on the forestry sector, a priority sector for the NREG programme which has been the largest beneficiary of the NREG sector budget support.

According to the 2012 Report of the Financial Management Support Mission, Martin van der Linder observed that during the years 2009-2011, about 42% of the expenditures of the Forestry Commission (excluding personnel emoluments) was funded with NREG Sector Budget Support resources. This high dependence on NREG funding could raise a problem when funding from NREG is no longer available.

Forestry has historically been a critical sector in Ghana, supporting livelihoods and providing jobs. About 11 million of Ghana's population lives in forest areas and about two thirds of rural livelihoods are supported by forest activities: this includes chainsaw operators, non-wood forest product harvesters, fuel wood and charcoal producers, bush meat hunters, and woodcarvers. The formal forestry and wildlife sector employs about 120,000 Ghanaians, while the informal sector (mostly for domestic and regional markets) is estimated to be as high as 260,000. The timber industry is currently the fourth largest foreign exchange earner after minerals, cocoa and tourism and contributes about 2.5% of the GDP. Primary wood and processed products account for 89% and 11% of timber exports, respectively.

However, forest resources are being depleted at an alarming rate. From the country's original forest cover of 8.2 million hectares at the turn of the 20th century, only 4.6 million hectares remain today with 1.6 million hectares as forest reserves and only 16% of forests considered to be in "healthy" state. Much of the off-reserve forest has already been harvested and degraded. The forest reserves – established in the 1900-1930s - are now under threat, with some already severely degraded. The annual sustainable harvest in Ghana is estimated to be about 1 million $m^3$, which primarily supplies a timber export-oriented industry. The domestic market is considered to absorb the large majority of the timber production in the country (about 85 percent of the total production) but is mostly supplied by illegal sources, relying on inefficient processing units.

Forestry sector policy objectives tend to be a compromise between competing objectives, ranging from forest plantation by the state or the private sector to conservation interests to resources for the communities and livelihoods. Balancing these competing objectives is always a complex issue. In addition the forestry sector tends to be politically complex, there are often significant gaps between policy plans and what is actually implemented.

Understanding the forestry sector expenditures will help establish whether the sector expenditures are consistent with stated sector priorities. It would also help develop effective strategies to strengthen the sector capacity, effectiveness and impact especially as it receives more donor funding to implement the Voluntary Partnership Agreement (VPA) and the Forest Investment Programme (FIP).

So far very few public expenditure reviews for the forestry sector has been undertaken due to data challenges, complexity of analysis and attributional problems. The earlier expenditure reviews of the Natural Resources and the Environmental Governance Programme (NREG) which also included the forestry sector, (Amissah Arthur, 2008; Gene Birikorang 2008; and Joshua Abor, 2008; focused on establishing baselines on expenditures, revenues, financial management, budget processes and organizational issues but did not link the expenditure processes to outcomes and how to improve spending effectiveness. Hence there is the need to examine the internal processes relating to public expenditure management with institutional capacity and outcomes in the forestry sector.

Findings from Amissah Arthur's expenditure review of the NRE sectors demonstrated the declining importance of the Natural Resources and the Environmental (NRE) sectors in Ghana's public sector budget from 2004 -2008. The sectors' access to resources (planned budget levels and actual expenditure) declined consistently in the period. Planned budget allocations reduced from 2.43 per cent in 2004 to 0.77 per cent in 2008. That budget allocations were so low that they were unable to finance the activities of the MDAs .In terms of actual expenditure, the sector's share of overall discretionary expenditures declined from 1.45 per cent to 1.05 per cent. It also showed that the overall funding from the national budget to the sector declined by 40% in nominal terms since 2004.

The study noted that the sector's overall record of budgeting was not impressive. Spending levels were lower than intended, varying significantly from plan, indicating low rates of budget execution. The study showed substantial variations in all budget categories. Funds appear to have been re-allocated from other activities to finance increased Personal Emoluments bills (which almost doubled as a share of total discretionary expenditures). The study concluded that the budget process failed to provide the Agencies including the Forestry Sector Agencies with adequate resources they needed to fulfill their core functions.

Joshua Abor, 2008 "*Translating the NREG Policy Matrices into Action Plans and Budgets*" recognized the importance of the three year Medium Term Expenditure Framework in providing continuity in the budget preparation and to ensure stable levels of funding, but noted that the annual budget did not seem to be guided by the three year rolling MTEF. The study observed that the assurance of stable levels of future funding, which was the essence of the multiyear budget framework has not been achieved for the NREG sectors. The study further noted that the budget preparation process placed greater emphasis on control of inputs and less on improving performance and service delivery of the sectors.

In his 2008 Revenue Analysis of the NRE sector, it was noted that between 2004 and 2005 alone, US$3million was lost to the forestry sector due to failure to adjust stumpage fees to their real levels and that in the forestry sector, revenue loss is a regular feature of the revenue administration.

The study observed that a non-relaxation of the log export ban (LEB) – to encourage international competition – keeps the wood processing inefficiency unaddressed, and imposes a significant limitation to what the sector can generate from imposition of Timber Right Fees. The study recommended that a Financing framework for the FC should be enhanced with legislative amendment to have FC retain full portion of the government share of future Timber Rights Fees.

The current study will build on an earlier baseline studies undertaken in 2008 by Mr. K.B. Amissah –Arthur on "Public Expenditure and Public Finance Management Baseline Analysis" during the start of the NREG programme and the September, 2012 Draft Report of Financial Management Support Mission of Martin van der Linder, Ecorys Research and Consulting.

**Objectives**

The overall objective of this review is to identify existing costs and spending patterns as linked with outputs and outcomes under established sector priorities, and assess how budgetary re-alignment can be achieved to better respond to the mandates and responsibilities of the forest sector agencies, and drive improvement in their performance and service delivery. The study will also help to inform decisions about future spending to enable achievement of sector policy objectives. Additionally, it is expected that the findings and the recommendations arising from the review would feed directly into the budget process and forest development policy.

More specifically, the objectives of the review are to;

1. Get a comprehensive picture of the budgets and actual expenditures of the forestry sector;
2. Identify causes for differences between budget allocation and expenditures.

3. Analyse relevance, efficiency and efficacy of spending of the Forestry Commission and other sector agencies against the stated policy priorities of the Government (Are the expenditures for the right activities to achieve stated policy goals (relevance)? Are expenditures delivering the biggest bang for the public money (efficiency)? Are there alternative approaches to executing some of the sector spending more efficiently (e.g. through entities other than do it now)? And are funds being spent yielding the desired effect (efficacy)? Are investments in the sector adequate?
4. Assess the current use of performance / results agreements linked to budget and their potential for improving sector performance.
5. Generate policy –relevant insights to improve the capacity of the Forestry Commission and the Ministry of Lands and Natural Resources regarding public expenditure management.
6. Provide to the Forestry Commission, the Ministry of Lands and Natural Resources and Ministry of Finance (GOG) with recommendations on how to improve budget allocations and improve efficiency of spending.

**Scope of work**

**Task Description**

The main tasks to be carried out are:

1) Provide the methodological approach and the conceptual framework of the Public Expenditure Review.
2) Drawing on readily available texts, provide brief overview of the forestry sector including organizational structure, sector goals and priorities and recent policy developments, sector performance, including assessment of public, private, and community-based roles and responsibilities.
3) Summarize the Legal, regulatory and sector institutional frameworks, and briefly review the incentive structure and political economy in the sector.
4) Analyse the macroeconomics of the forestry sector ( overview of the sector performance over the past five years, in terms of planned spending (the budget ), actual spending (expenditures), planned and actual income collected (revenues), achievements (outputs), and whether these achievements met policy objectives (outcomes);
5) Examine budget allocation/disbursement/execution rates against approved budgets and the MTEF budget process
6) Assess whether sector expenditures are consistent with stated sector priorities and budget commitments, and whether planned expenditures are aligned with sector priorities. The linkage of the sector priorities and the national strategic planning process.

7) Analyse expenditure trends to assess the composition of public expenditure (expenditure types i.e. recurrent including personnel emoluments, investment/capital and recurrent within the various divisions of the forestry sector/geographical area).
8) Analyse the overall trends in allocations to the sector from 2008- 2014, including all funding sources: NREG –SBS, GOG funds, project funding and Internally Generated Funds, both in absolute terms and relative to other NREG sectors, the overall national budget, and the sector GDP.
9) Analyse budget allocation against core functions as set out in the MTEF and sector plans and against national priorities. Recurrent budget implications of capital spending and whether recurrent costs are properly planned for and sustainable.
10) Review all phases of the budget cycle: budget preparation processes (MTEF, PAF, Result Frameworks, budget execution, reporting, internal control and auditing). Are the budgets reliable estimates of actual expenditures (credibility of the budgets)?
11) Analyse FC expenditures across divisions i.e. TIDD, FSD, Wildlife Division etc. and identify indicators for measuring outcomes of spending of the forestry sector.
12) Analyse the differences between budgets requested and budgets actually approved for FC and the Ministry of Lands and Natural Resources during the review period and identify the causes of the deviations in terms of amounts and timing of the releases.
13) Estimate the amount of off-budget not budgeted for expenditure going into the forestry sector by activity.
14) Analyse the quality of Public Financial Management (PFM) of the Forestry Commission (FC). Financial administration Act, PAC Reports, Auditors Report, toolkits for PFC
15) Benchmark budgetary performance of the FC against comparator organizations in the region (or globally) and in Ghana.
16) Examine process and coordination in the forestry sector agencies and funding partners to bring about consistency between policies and expenditures to improve service delivery.
17) Analyse problems and challenges as regards funding of the forestry sector going forward.
18) Estimate efficiency and effectiveness? of forestry expenditures and the extent to which it promotes internal efficiency (sustainable development benefits) and service delivery.
19) Outline the binding constraints for improving forestry sector expenditure and financial management and recommendations to enable targeted improvements in sector expenditures and budget management performance.
20) Formulate recommendations on how the PFM of the Forestry Commission and the MLNR can be strengthened.
21) Assess the potential of payment of environmental services (PES) in providing sustainable funding for the sector.

**Deliverables**

The consultant is expected to deliver the following:

1. ***An inception report*** shall be submitted three weeks after the contract signature.

2. **A draft Report** covering all the tasks mentioned above shall be submitted eight weeks after the contract signature.
3. **Final Report** containing the findings, macroeconomic data analysis of the forestry sector, expenditure and financial management analysis, (with relevant tables) conclusions and recommendations as regards the above mentioned tasks in 6 hard copies and an electronic copy after comments have been incorporated into the draft document ;
4. The NREG Secretariat will organise stakeholder workshop to validate and disseminate the findings of the report. The Consultant is expected to be available to present the draft report at the validation workshop. The final reports shall be submitted twelve weeks after the contract signature
5. Oral presentation of the final document to the NREG Technical Coordinating Committee and other stakeholders.
6. Power point presentation summarizing the findings of the PER.

**Consultant Qualifications**

The study is to be executed by a Firm or a Team of Consultants with the following profiles and experiences:

- At least an Advanced Degree in Economics/Public Finance or in related fields with fifteen years post qualification experience
- Forestry Sector Expert (Profound know

- ledge of the forestry sector in Ghana .
- Profound knowledge of the Public Finance Management System in Ghana
- Experience with Sector Budget Support programmes and Budget Analysis.
- At least fifteen years' experience in policy analysis especially in the formulation Economic Policy and Environment and Natural Resources Policies or work of a similar nature (Policy Expert)
- Excellent command of spoken and written English.

**Role of Ministry of Finance (MoF) and the Ministry of Lands and Natural Resources (MLNR)**

This is a data intensive assignment. Budget Division and the NREG Secretariat of MoF will facilitate access to data and data collection process. Close collaboration with the forest sector agencies is expected during the entire course of the assignment.

**Timeline**

The assignment shall commence by February 2015 and shall be completed by the end of April, 2014.
The anticipated level of effort is sixty (60) man days.

**Reporting**

The consultant will report to the Coordinator of NREG Programme.

**Appendix 2: Policy Framework Context (Guide To Policy function-Output Outcome Matrix Reporting -HQ)**

**FORESTRY SECTOR PUBLIC EXPENDITURE REVIEW, 2015**

**FORESTRY COMMISSION:**

**I. POLICY FRAMEWORK CONTEXT #**
**(GUIDE TO POLICYFUNCTION-OUTPUT OUTCOME MATRIX REPORTING)**

| | | | |
|---|---|---|---|
| | **SECTOR POLICY GUIDELINES** (Linked to National development goals) | **BROADER SECTOR OBJECTIVE (GOAL)** | **SPECIFIC OBJECTIVE** (This suggests a "purpose –Output" linkage) |
| 1 | **Managing And Enhancing The Ecological Integrity Of Forest, Savannah, Wetlands And Other Ecosystems.** | | |
| | | Sustainable Forest Ecosystem Management | |
| | | | Manage gazetted Forest Reserves based on forest m units (FMU) system in line with national policies and as well as international treaties |
| | | | Develop Off-reserve forest production areas with w and clearly established objectives compatible with forest management principles |
| | | | Establish network of National Parks, Sanctuaries Protected Areas to adequately conserve e representative areas and biological corridors tha genetic continuity of flora and fauna. |
| | | | Sustainably manage and develop commercial woodfu and other non-timber forest products on both c reserved forest areas. |
| | | | Promote the traditional autonomy for the prote management of sacred forests and community forests for biological and cultural diversity on and off re |
| | | Sustainable Savannah Ecosystem | |

| | | | |
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| | | Resources Management | |
| | | | Develop systems and technologies for sustainable m of savannah woodland resources for environmental and enhance socio-economic development. |
| | | Sustainable utilization and development of wetlands | |
| | | | Promote sustainable management of mangroves to the wetlands and also protect endangered species marine turtles |
| | | Development of Ghana's national strategy in response to the climatic changes. | |
| | | | Develop capacities in public institutions and civil s engage in future international and domestic mechanism respond to climate change. |
| | | | |
| 2 | Promoting The Rehabilitation And Restoration Of Degraded Landscapes Through Plantations Development And Community Forestry | | |
| | | Rehabilitation and Restoration of Degraded landscapes | |
| | | | Develop systems packages to support sector and community reforestation and f development in deg forest areas and pr lands. |

| | | | |
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| 3 | Promoting The | | |

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| | Development Of Viable Forest And Wildlife Based Industries And Livelihoods, particularly In The Value Added Processing Of Forest And Wildlife Resources. | | |
| | | Development of forest based Industries | |
| | | | Support the deve modernization of the Industries. |
| | | Development of wildlife-based Industries | Promote sustainable wildlife-based Industries |
| | | | |
| | | | |
| 4 | Promoting And Developing Mechanisms For Transparent Governance, Equity Sharing And Peoples Participation In Forest And Wildlife Resource Management | | |
| | | Transparent governance of forest and wildlife Resources | |
| | | | Institute transparency, legalize public pa sustainable forest and w management. |
| | | Eliminating illegal logging and chainsaw operations | Develop Strategic Na address illegal loggin activities |
| | | | |
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| 5 | Promoting Training, Research And Technology Development That Supports Sustainable Forest Management. | | |
| | | Promote training, research and technology Development | |
| | | | Support the uptake and dissemination of information built on indigenous and scientific knowledge to improve on the management of forest and wildlife resources. |
| | | | Increase Public Education and Create Awareness on the Value and Multiple Uses and benefits of Forests |
| | | | Support Research and Development to enhance efficiency in the wildlife industries |
| | | | |
| 6 | Enabling environment for FWP implementation (Supporting The Implementation Of The Forest And Wildlife Policy Objectives And Programmes) | | |
| | | Formulation and implementation of a comprehensive 20-year Forestry Development Master Plan to fit into the national poverty reduction strategy. | |
| | | | Stimulate political and institutional support for the implementation of the forest and wildlife policies and programmes at all levels of governance. |
| | | | Increase Public Education and Create Awareness on the Value and Multiple Uses and benefits of |

| | | | |
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| | | | Forests |
| | | | Support Research and Development to enhance efficiency in the wildlife industries |
| | | | Develop sustainable and predictable financing instruments to support forestry sector activities |

**Appendix 3: Policy-Output-Outcome Matrix Reporting Format (Divisional/HQ Level Budgeting)**

**FORESTRY SECTOR PUBLIC EXPENDITURE REVIEW, 2015**

**FORESTRY COMMISSION:**
**II. POLICY-OUTPUT-OUTCOME MATRIX REPORTING FORMAT (DIVISIONAL/HQ LEVEL BUDGETING)**

**YEAR OF REPORTING**________________________________

<table>
<tr><td colspan="2">Broader Sector Objective (Goal) in line with national development objective</td><td colspan="3">(Please indicate in this space)</td></tr>
<tr><td colspan="2">Specific sector objective (This suggests a linkage between “purpose” and “outcome”)</td><td colspan="3">(Please indicate in this space)</td></tr>
<tr><td colspan="2">Budget activities (To be listed below)</td><td>Output specification (NB: A number of activities may be required to result in a given output)</td><td>Cost of achieving output(s) (GH¢, 000) under specific sector objective</td><td>Staff ‘s own specification of expected outcome A number of outputs may be required for the realization of an outcome. An outcome may not necessarily occur in the budget year, but must still be stated</td></tr>
<tr><td>1</td><td></td><td></td><td></td><td></td></tr>
<tr><td>2</td><td></td><td></td><td></td><td></td></tr>
<tr><td>3</td><td></td><td></td><td></td><td></td></tr>
</table>

***Please add to list vertically below***

**Appendix 4: Function-Output-Outcome Matrix Reporting Format: (Operational Level Budget Execution)**

**FORESTRY SECTOR PUBLIC EXPENDITURE REVIEW, 2015**

**FORESTRY COMMISSION:**

**III. FUNCTION-OUTPUT-OUTCOME MATRIX REPORTING FORMAT: (OPERATIONAL LEVEL BUDGET EXECUTION)**

**(FC DISTRICT OFFICE CASE STUDY/PLANTATION UNIT/TIDD DEPARTMENTS/RMSC)**

**YEAR OF REPORTING**______________________________

| | | | | | |
|---|---|---|---|---|---|
| **Broader Sector Objective (Goal)** in line with national development objective | | | | | |
| **Specific sector objective** (This suggests a linkage between "purpose" and "outcome") | | | | | |
| Function | Budget activities | Output specification (NB: A number of activities may be required to result in a given output) | Budgeted cost of achieving output (GH¢, 000) | Actual cost of achieving output (GH¢, 000) | Staff 's own specification of ***expected outcome*** A number of outputs may be required for the realization of an outcome. An outcome may not necessarily occur in the budget year, but must still be stated |
| | | | | | |
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**Appendix 5: Forestry Sector Public Expenditure Review: Budget Assessment a**

**DATA COLLECTION GUIDE**

**Forestry Sector Public Expenditure Review**

This data collection guide is part of a study being conducted to undertake public expenditure review of the forestry sector of Ghana under the auspices of the Ministry of Finance. Kindly, provide as honest information as possible. We wish to assure you that information provided will be treated as highly confidential. Thank you for your cooperation.

**Section A: Budget Cycle and Execution and Assessment of the Forestry Sector**

| Indicator | ***Score (1 -5)*** *Guide: 1= Very favourable; 3=Satisfactory; 5= Very unfavourable. Respondents could score a (2) or a (4), according to their own judgment* | **Remarks (provide documentation where available)** |
|---|---|---|
| 1. A complete set of documents can be obtained by the public through appropriate means when it is submitted to the MOF | | |
| 2. In-year budget execution reports exist: The reports are routinely made available to the public through appropriate means | | |
| 3. Existence of and adherence to a fixed budget calendar within the unit | | |
| 4. Clarity/comprehensiveness of MOF involvement (and other appropriate agencies) in the guidance on the preparation of budget submissions (budget circular or equivalent) | | |
| 5. Budget formulation carries strategic direction from FC's Board | | |
| 6. Timely budget approval by the mandated body (within the last three years); | | |
| 7. A comprehensive and clear budget circular is issued | | |

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| to unit, which reflects ceilings approved by mandated dept/unit (or equivalent) prior to submission to MOF. | | |
| 8. Forecasts of fiscal aggregates –revenues and expenditure (on the basis of functional/unit classification) are prepared on a rolling annual basis. | | |
| 9. There exist unit/dept strategies with multi-year costing of recurrent & investment expenditure | | |
| 10. Extra-budgetary expenditure (other than donor funded projects) is adequately reported and included in fiscal reports. | | |
| 11. There exists complete income/expenditure information for 90% (value) of donor-funded projects | | |
| 12. Complete income/expenditure information for 90% (value) of donor-funded projects is included in fiscal reports | | |
| 13. Control procedures for revenue accounting are clearly written out | | |
| 14. Controls and procedures for accounting for all major revenues by receiving unit are comprehensive and clear, with strictly limited discretionary powers by staff/management. | | |
| 15. All revenues (or IGF) are paid directly into accounts controlled by the mandated body or transferred to the Consolidated Fund monthly or as stipulated. | | |
| 16. A cash flow forecast is prepared for the fiscal year and updated at least quarterly, on the basis of actual cash inflows and outflows. | | |
| 17. Unit is able to plan and commit expenditure for at least six month in advance in accordance with the budgeted appropriations. | | |
| 18. All of the key procurement information elements are complete and reliable for mandated body/ units representing 90% of procurement operations (by value) and made available to the public in a timely manner through appropriate means. | | |
| 19. Comprehensive expenditure commitment controls are in place and effectively limit commitments to actual cash availability and approved budget allocations | | |
| 20. There exist open competitive procurement and | | |

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| clearly define procedure and rules | | |
| 21. Internal audit is operational for the unit, and generally meet professional standards. | | |
| 22. Audit reports adhere to a fixed schedule and are distributed to the audited entity, ministry of finance | | |
| 23. Action by management on internal audit findings is prompt and comprehensive across central government entities | | |
| 24. Annual deviation of actual budget support from the forecast provided: Percentage of direct budget support outturn fallen short of the forecast over the last three years | | |

**Appendix6: Data collection sheet: quantitative output at divitional level**

| Quantitative Output | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
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**Appendix 7: Data collection instrument: Contribution to IGF**

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| Actual | | | | | | | | |
| Budget | | | | | | | | |
| Variance | | | | | | | | |

**Appendix 8 : Data collection instrument Expenditures**

| | 2007 | | 2008 | | 2009 | 2010 | | 2011 | | 2012 | | 2013 | | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Actual | Budget | Actual | Budget | Actual | Actual | Budget | Actual | Budget | Actual | Budget | Actual | Budget | Variance | Actual |
| Goods and Services | | | | | | | | | | | | | | | |
| Assets | | | | | | | | | | | | | | | |

| Total | | | | | | | | | | | | | | |
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**Appendix 9: Qualitative outputs from the WD**

| | |
|---|---|
| 2009 | Three satelite camps completed at Bia National Park |
| | Construction of Bongo and Kunkumso camps completed in Bia National Park |
| | Four range camps constructed to 65%-90% complete in Bia and Ankasa Conservation Areas |
| 2010 | A total of twelve (12) camps were rehabilitated in Mole, Digya and Bui Conservation Areas. |
| | Thirteen (13) units of Junior Staff accommodation were also rehabilitated in Mole, Kakum and Goaso Conservation Areas |
| | Rehabilitation of a 3-bedroom and a semi-detached bungalow for the use of tourists is about 80% completed. |
| 2011 | Six-room camp built at Kogyae Strict Nature Reserve for field staff. |
| | Completed fencing for ostrich farm in Shai Hills Resource Reserve and stocked it with five ostriches. |
| | Two Concession Agreements with two private investors for ecotourism investment in Mole, Kakum and Ankasa Conservation Areas have been approved by the board of the Forestry Commission. |
| 2012 | Fees and charges were revised and circulated to PAs/Zoos for implementation to improve revenue. |
| 2013 | Constructed 50m drain at the Park Headquarters of Ankasa Conservation Area. |
| | The first six (6) unit rooms, 3-unit kitchen, toilet and water harvesting system at Kananto Sub-Range were completed at Mole National Park. |
| | Rehabilitation of a 30-room Wildlife School Hostel and fence wall at Mole National Park was completed |
| | Construction of new classroom block, reception, washrooms and installation of water tanks at Mole Wildlife School completed. |
| | One bore-hole was drilled and mechanized at a Tented Camp in Gbele Resource Reserve. |
| | Construction of camp at Tinga for field staff of Bui National Park is at roofing stage |
| | A Tree-house camp site and associated facilities in Kakum National Park was rehabilitated. |
| | Three-unit toilet and water harvesting facilities were constructed at Kakum National Park. |
| | Five (5) nature trails were constructed at Bomfobiri and Owabi Wildlife Sanctuaries. |
| | 136Km game viewing trails were cleared at Shai Hills, Mole and Ankasa Conservation Areas. |
| 2014 | 3 new cages constructed and 10 existing ones repaired in Accra and Kumasi Zoos respectively. |
| | A metal gate was fixed at the main entrance of Shai Hills Resource Reserve |

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| | Two (2) boreholes constructed in Gbele , and Shai Hills Resource Reserves and one maintained in Kakum NP. |
| | An office block maintained at BIMU, Goaso. |
| | Eighteen (18)-unit Junior staff quarters , 2 Senior staff bungalows and an office block in Bui completed and handed over to WD by BPA |
| | Six unit Camp building at Tinga completed in Bui NP. |
| | Eight unit camp building in Hwanyanso in Digya National completed. |
| | Twenty (20) Culverts constructed along Crossroad in Mole National Park. |
| | 4km of Shai Hills Resource Reserve boundary fence constructed |
| | 18 housing units constructed to roofing stage for the resettlement project at Gbele Resource Reserve. |
| | Two camps were connected to the national electricity grid in Kakum National Park. |
| | Two staff bungalows maintained at BIMU Goaso and Kogyae Strict Nature Reserve. |
| | Construction of Kagyaworase camp in Bomfobiri Wildlife Sanctuary completed |
| | 8000 blocks moulded for construction of Research Centre in Mole National Park |
| | A new museum has been constructed to the roofing stage in Mole National Park. |
| | Tree house and a camp site in Kakum National Park rehabilitated |
| | Three (3) dug-outs (waterholes) constructed in Mole National Park and Shai Hills Resource Reserve. |
| | 75 volunteers from communities around Ramsar Sites trained in Turtle surveillance and protection. |
| | 25000 Mangrove seedlings were planted in 3 Coastal Ramsar Sites |
| | 700 seedlings of other species were supplied to Schools/Communities within the Ramsar sites and Mole NP for planting |
| | Six (6) training programmes organised for six (6) communities in the use of chilli/grease demostration farms in Kakum NP to control marauding elephants |
| | Participated in 5 public awareness events including trade and policy fairs |
| | Three (3) dug-outs (waterholes) constructed in Mole National Park and Shai Hills Resource Reserve. |
| | Electronic-ticketing systems installed at Kumasi zoo, Mole and Kakum National Parks. |

**Appendix 10:Qualitative outputs from the FCTC/WITC**

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| Training needs assessement carried out (no. of districts in region) | 18 in Volta Region | 10 in Greater Accra Region | 21 in Eastern Region | 16 in Central Region | | | |

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| | | | | | | | |
| Trained industry operators | 331 SS carpenters in Volta Region | 156 SS carpenters in Greater Accra Region | 288 SS carpenters in Eastern Region | | 200 SS carpenters in Central Region 128 WAG Excutives in finishing | 35 SS carpenters at Mampong<br><br>44 industry operators in ICT | 135 Master craftmen of Tema Wood Manufacutres |
| | | | | | | | |
| Collaborated with MCE, DCE and Carpenters Associations | 18 in the Volta Region | 10 in the Greater Accra Region | 21 in the Eastern Region | 16 in the Central Region | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (No. of Municipalities and districts in region) | | | | | | | |
| Collaborated with international Institution | Collabrate with Bern University in Switzerland | | | | | | |
| Signed training agreement | | | | | 2 female trained in carpentery | | |
| Collaborated with local Institutions | | | | | Signed MOU with CAMFED, WAG and Rural Enterprise | Collabrate with Kumasi Polytechnic, COTVET, NVTI and FAWAG | |
| Customized training undertaken | | | | 10 lecturers of Sunyani Poly furniture department trained in wood machining and maintenance | | | 258 industry operators from two firms trained in Occupational Health and Safety |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acquire and transfer new technology to the Industry | 2 staff trained in Roof Construction | Transferred new technology to lecturers and instructors from 7 institutions in Roof Construction | 0 | 0 | | Procured Computer Numerical Control (CNC) router machine | 7 staff trained on CNC Router |
| | | | | | | Procured Spraying Boot | |

**Appendix 11: Qualitative output from the TIDD**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Teak and Cedrella production (Yr: 2007) | 270075 | | | | | | | |
| Organized the Ghana International Furniture and Wood Working Exhibition (Yr: 2008) | | | | | | | | |
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| | NREG QUALITATIVE OUTPUTS |
| 2007 | • Monitoring and Inspection activities improved witha new kiosk constructed at the Inchaban checkpoint while the one at Agona Nkwanta rehabilitated.<br>• Capacity of Graders and Inspectors enhanced with training workshop on Production and Grading of Raw Curls, Curls/Sliced Veneers and Customer Service Management organized by WITC.<br>• Operational Manual for the performance of the Core Departments developed and workshop on its usage organized. |
| 2008 | • Trade promotion enhanced with the organization of the 12th edition of GIFEX with the theme “A Hundred years of forestry in Ghana networking partnerships for sustainable development” organized in collaboration with various stakeholders including forestry operatorsafter being dormant for over a decade.<br>• Security features for Export Permit for Wood Products Invoices in the form of value books to ensure timber and wood product exporters submit accurate and adequate information to the Division introduced.<br>• The process of linking the Division’s export permit system to the GCNet platform to enable TIDD make on - line issuing of wood export permits to industry from the Headquarters in Takoradi and other area offices completed.<br>• Inspection and Monitoring of the trade in the Western Region was enhanced with the reopening of the Awaso Area Office. |
| 2009 | • Draft report on the Legislative Instrument for TIDD operations developed and submitted to FC Head Office for further action. |

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| | • Proposed eligibility criterion for licensing the operations of mills fine-tuned for approval and submitted for consideration and implementation.<br>• Fees and charges for the services of the Division reviewed and submitted for implementation.<br>• In collaboration with Ghana Customs Management System (GCMS) the issuance of electronic export permit for timber and wood products based on GCNet Platform was successfully launched with training for TIDD Export Permit Staff organized. |
| 2010 | • Policy option for the development and restructuring of the Domestic Market – Draft National Procurement Policy - developed in collaboration with TBI.<br>• Development of the Wood Tracking System under the VPA concluded and test piloted at Samartex, John Bitar, Mondial and the Inchaban Check points for the efficiency of the hand held computers (HHC).<br>• Technical and consultancy services on the operation processes of Yenok Wood Products Ltd to secure a grant from USAID for the construction of a 14m3 FPL Lumber drying kiln that uses solar/wood energy provided.<br>• Project proposal for the introduction of mobile recovery mills (MRT) to produce legal wood products to the domestic market developed for stakeholder consideration and implementation<br>• New Zonal office at Jasikan and other check points in the catchment area to improve the monitoring of timber trade in the Volta Region operationalized<br>• In collaboration with GSA processes to make TIDD ISO 9000 (QMS) compliant to improve its Management systems and procedures commenced.<br>• Standards for Lumber ,Veneer and Plywood reviewed and published<br>• Training workshop for Micro, Medium and Small Scale Enterprises (MMSE) of the tertiary sector of the timber industry organized in collaboration with Kumasi Wood Cluster Initiative (KWCI). |
| 2011 | • Draft Timber Procurement Policy submitted to FC Board of Commissioners and Executive Management Team for approval and implementation.<br>• An industry blueprint to guide industry retooling process developed with areas for policy intervention, capacity building and support identified for further action.<br>• Draft document on nationwide Timber Industry Survey on value added processing undertakenwith FORIG as consultant submitted for study and comment by TIDD Management.<br>• Table of Wood Weight Factors at the instance of Ashanti Curls and Lumber Products Ltd in response to addressing the problem with determining shipment weight of lumber parcels at mill sites and export terminals developed. |
| 2012 | • Multi-Stakeholder consultative Workshop on Procurement Policy on timber products for the domestic market for Municipal, Metropolitan and District Assemblies, timber trade associations, regional coordinating councils, civil society groups, chiefs and opinion leaders and other recognized stakeholdersorganized.<br>• Workshop to revise and adopt the following standards: a. GS198:2011-Wood and Wood Products-Specification for Plywood for general use, manufactured from Ghana Hardwood; b. GSISO12466-1-2007-Plywood – Bond |

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| | Quality – Part 1: Test Methods; c. GSISO2074:2007-Plywood-Vocabulary organized.<br>• In collaboration with the Ghana Standards Authority the final draft standards for four selected wood products namely: a. Boules b. Square-edge edged sawn timber;c. Rotary Veneer andd. Sliced Veneer reviewed<br>• Draft (QMS) Quality Manual (ISO 9000) to become ISO 9001 compliant reviewed and submitted to GSA for formal presentation to TIDD management and training of internal auditors on the Quality Manual for implementation concluded.<br>• Trade mission to Cameroon to explore the possibility of importing timber and other wood products to augment current drop in the supply of timber for processing undertaken.<br>• Proposal for the establishment of a Sub-regional Office to oversee trade activities in the ECOWAS market submitted following the outcome of Trade Delegation to Nigeria on plywood<br>• Four (4) members from FAWAG (Art Deco, Irroko, Yenok and the Secretariat) and one (1) TIDD Representative sponsored to the CEPA organized Sales Mission to Liberia and Mali |
| 2013 | • Business agreement between LLL and the Artisanal milling groups in the Sankore and Akrodie communities in the BrongAhafo region to pilot the MRT concept with hire purchase LT 20 Wood Mizer machines signed.<br>• Management Board for Kumasi Wood Estates Limited (KWEL) re-organized<br>• Sensitization workshop for the Customs Division of the GRA to foster greater co-operation between FC/TIDD and the GRA in areas that relate to timber trade regulations and the collective responsibilities of the two agencies in the implementation of the VPA process organized<br>• Business agreement between LLL and the Artisanal milling groups in the Sankore and Akrodie communities in the BrongAhafo region to pilot the MRT concept with hire purchase LT 20 Wood Mizer machines signed.<br>• Management Board for Kumasi Wood Estates Limited (KWEL) re-organized<br>• Sensitization workshop for the Customs Division of the GRA to foster greater co-operation between FC/TIDD and the GRA in areas that relate to timber trade regulations and the collective responsibilities of the two agencies in the implementation of the VPA process organized |
| 2014 | • Wood Industry Working Group Sub-Committee to provide guidance and advice on the effective implementation of an MOU for the importation of timber constituted.<br>• GUIDELINES to support implementation of the Public Procurement Policy on timber and timber Products for the domestic market developed.<br>• Memorandum of Understanding (MoU) to develop a business proposal for Pioneer Bamboo Processing Company Limited (PBPCL) at AssinFoso in the Central Regionto apply for a grant under the Skills Development Fund (SDF) to upgrade the factory to serve as a Technology Transfer Centre for the plywood/plyboard and furniture industry with the aim of harnessing the huge economic potential of bamboo as supplementary raw material for the industry in Ghana signed. |

*Appendix Qualitative output of RMSE*

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| 2014 | • Competitive Timber Felling Contract ( Prospectus developed , Advertisement drafted , Contract Agreement Document developed )<br>• Timber Auctioning (Prospectus developed ,Advertisement developed)<br>• Updated socio-economic baseline data for 4 GSBAs Forest Reserves (Boin-Tano, Tano Nimiri, Yoyo and Fure Headwaters ).Community visits to 12 forest fringe communities to communicate new GSBA areas to participants, identify CIF challenges and its impacts on on-reserve and off-reserve, to explore potential for collaboration among stakeholders through identification of existing forest-based and other related institutions and to identify Potential Threats to the GSBA forest reserve<br>• Landscape Restoration Project (TBI, RMSC, KNUST) -Stakeholder Analysis (Identified stakeholders to be involved in landscape restoration specifically in off-reserve small holder forest plantation development e.g FC. Farmers, Landowners, etc.; Training on collect earth application organized with FORIG and National; Working Group audit of timber production reserves in Ghana according to national ATO/ITTO SFM standard; Training on Leadership and Scientific skills development; Seedling production at Mesewam nusery; Exotic and indigenous species produced and supplied<br>• Completed the SDF – Ecotourism center (The centre Completed and signpost developed)<br>• Monitored wildfire activities in some Forest Districts namely Bechem, Bibiani and Juaso<br>• Training and orientation of existing and new cartographers respectively<br>• Provided Technical Support for Implementation of WTS<br>• Timber Production Statistics From *Natural Forest (ON & OFF – RESERVE) developed*<br>• Prescription for harvesting of Green Firebreaks developed<br>• Biodiversity Assessments undertaken in Four GSBAs<br>• Assessment of degradation status of forest reserves for forest plantation development undertaken in Esen Apam FR<br>• Yield Vetting: 117 Compts. Vetted<br>• Monitoring Compliance Of New Stumpage in 4 Districts namely Mpraeso, Goaso, Enchi, Asankrangwa<br>• Post Exploitation Checks: 5 out of the 21 Districts were covered (Asankrangwa, Wiawso, Goaso, Juaso, Juaboso)<br>• Resource Inventories Reserve Status Assessment: Some Compts. in 6 Reserves namely Onuem Bepo, Tinte Bepo, Subri River, Ajenjua Bepo and Draw River were covered<br>• Carbon Assessment In FIP Project Area: Carbon assessment covering 8 Forest Reserves and Corridors (Off-Reserve Areas) linking these reserves were conducted<br>• Contributed significantly in producing the standard operating procedures for Monitoring Reporting and Verification (MRV) under REDD+.<br>• Expanded monitoring to cover parts of transitional zone and parts of Northern Region<br>• Revised and Completed Adwenaase Community Forest Management Plan with |

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| | financial support from TBI-Ghana<br>• Monitoring and Evaluation of wildfire incidence<br>• Collaboration with UENR on fire and disaster curriculum development<br>• 244 schedules of admitted rights were prepared for the various districts in the country. FESTAC Modalities developed and approved<br>• |
| 2013 | • Demarcation and inventory of plantation stands into three lots: A, B & C<br>• Sensitization meeting with farmers at Ayigbe on the FESTACK modalities<br>• Training workshop for Assistant District Managers and Range Supervisors on Wildfire Management<br>• Floral survey of Cape Three Points<br>• Developed and rolled out a programme for lopping green fire breaks in Bosomkese Forest Reserve<br>(based on half year report) |
| 2012 | • Draft Plantation Strategy document developed and reviewed by expert panel<br>• The LULUCF, Topographic Maps and Carbon Estimation of the Forest Preservation Programme (FPP) Project site completed<br>• Ecotourism Centre renovated and nearing completion<br>• Strategies on Green-fire Breaks Establishment, creation of CBAG's and training of communities to support alternative livelihoods in SDF executed<br>• Implementation status of expired GSBA's Management Plans evaluated to provide inputs into PES and also pave way for writing of new Plans<br>• Draft Modalities and Operational Strategy developed<br>• Bided and secured five consultancy assignments which amounted to GH₵367, 344.77<br>• Proposal for two stage bidding of plantation timber developed and submitted: Consultations held with FSD and communities, Validation meeting held with FSD and TIDD<br>• Fell stack pilot programme initiated at Yaya Forest Reserve |
| | • |
| 2011 | • Assessment of Eucalyptus stands at Aboma and Awura Forest Reserves and 2010<br>• National Forest Plantation at Wawase and Manso Nkwanta<br>(based on mid year report) |
| 2010 | • Conducted 10 regional forest fora to enhance monitoring of forestry operational activities<br>• Built Capacity of Forum Facilitators<br>• Monitoring of Forest Forum Activities<br>• A colloquim on Forest Plantation Development in Ghana – Strategies, Challenges and Way forward organized<br>(based on mid year report) |
| 2009 | • Socio-economic surveys for the twenty forest reserves included in forest management plan<br>• Fauna surveys for the twenty forest reserves included in forest management plan |

| | |
|---|---|
| 2008 | • GIS Consultancy completed and a GIS Master Plan developed<br>• 15 PSP`s have been demarcated, enumerated and pillared<br>• 4 faunal surveys successfully executed |

**Appendix 12: List of people contacted**

| Name | Division | Position | Phone | Email |
|---|---|---|---|---|
| Cynthia Mary Buabin | TIDD | Asst. Fianance Mgr | 0208164119 | cbuabin19@yahoo.com |
| Frank Adigbo | Researcher EPMP-UG | Research Asst. | 0206008899 | fwadigbo@yahoo.co.uk |
| Theophilus Addy | Corporate HQ | Financial Acct. | 0244144161 | theo4ub@yahoo.com |
| James Oppong | WD | Ag. BPM | 0243181977 | james_oppong2000@yahoo.com |
| Victor Attah | WD | Finance Mgr | 0244943750 | vattah_wd@yahoo.com |
| Mike Asaam | FSD | Finance Mgr | 0241919944 | m_asaam@yahoo.com |
| Carl Ahadzi | FSD | Asst. Finance Mgr | 0208907195 | ahadzicarl@yahoo.com |
| Samuel Odei | Corporate HQ | Finance Mgr | 0246888493 | Samuel_odei2001@yahoo.com |
| Frank Ohene-Wiafe | Corporate HQ | Asst. Finance Mgr | 0244884669 | ohenewiafe@yahoo.com |
| Joseph Yaw Oppong | | | | |
| Hugh Brown | | | | |
| Cudjoe Awudi | | | | |

| Name | Position | Phone | Email |
|---|---|---|---|
| Kojo Mensah Davis | District Accountant | 0208125110 | bostaurus2001@yahoo.com |
| Sarpong Michael | Asst. District Manager | 0209639404 | kofisarpong367@gmail.com |
| Ernest Nkansah Kwarteng | District Manager | 0244702924 | nkansah222@yahoo.com |
| Paul Agyei Amoako | R/S | 0243557808 | - |
| Reynolds A. Debrah | National President (WAG) | 0244072024/0205111069 | raddebs@yahoo.co.uk |
| Abdullah Bin Abubakar | Gen Secretary (WAG) | 0267447888 | dimaxdecor@yahoo.com |
| Ntiamoa-Boateng | Executive Member | 0206729354 | saintboat62@yahoo.com |

| | | | |
|---|---|---|---|
| Said | (FAWAG) | | |
| D. K. Boateng-Poku | President (GTA) | 0244024006 | gtagh@yahoo.com |
| Isaac Buabeng | Coordinator (FAWAG/WCI) | 0200507465 | buabengisaac85@yahoo.com |
| Owusu Brobbey | Ex.Secretary (GTA) | 0244725728 | gtagh@yahoo.com |
| Christopher Dadzawa | Admin Officer (FAWAG) | 0208448393 | chrisdadzawa@yahoo.com |
| Akwasi Awua Agyemang | Reg. Chairman (FAWAG) | 0263541334 | - |
| Henry Coleman | Director of Operations (TIDD/FC) | 0208118123 | hgcolee55@hotmail.com |
| Anthony A. Eshun | Area Mgr Kumasi (TIDD/FC) | 0208142192 | aeshun27@yahoo.com |
| Benjamin Adjei | Forest Mgr (LLL) | 0244925779 | kofid2002gh@yahoo.com |
| Dr. A. N. Abukari | Business Devt& Consultancy Mgr (WITC) | 0246147154 | abukari2000@yahoo.co.uk |
| Alberta Adjei Gotah | Dep. Finance Mgr (WITC) | 0244750457 | aagotah@gmail.com |
| Hamzad | RMSC | 0200683200 | Hamzard70@gmail.com |
| Boakye | RMSC | | |

## Appendix 13: Sector Policy-Output matrix

| | **SECTOR POLICY GUIDELINES** (Linked to National development goals) | **BROADER SECTOR OBJECTIVE (GOAL)** | **SPECIFIC OBJECTIVE** (This suggests a "purpose – Output" linkage) | |
|---|---|---|---|---|
| 1 | **Managing And Enhancing The Ecological Integrity Of Forest, Savannah, Wetlands And Other Ecosystems.** | | | |
| | | Sustainable Forest Ecosystem Management | | |
| | | | Manage gazetted Forest Reserves based on forest management units (FMU) system in line with national policies and legislation as well as international treaties | **FSD**<br>• Degraded f<br>• Encroachin and/or dest<br>• Natural for<br>• Forest rese implemente<br>• Globally S Areas Mgt |
| | | | Develop Off-reserve forest | |

| | | | | |
|---|---|---|---|---|
| | | | production areas with well-defined and clearly established objectives compatible with sustainable forest management principles | |
| | | | Establish network of National Parks, Sanctuaries and other Protected Areas to adequately conserve ecologically representative areas and biological corridors that maintain genetic continuity of flora and fauna. | **WD**<br>• Protected A<br>• Poachers ar<br>• PA bounda<br>• PA access r |
| | | | Sustainably manage and develop commercial woodfuel supplies and other non-timber forest products on both on-and-off-reserved forest areas. | |
| | | | Promote the traditional autonomy for the protection and management of sacred forests and community dedicated forests for biological and cultural diversity on and off reserves | |
| | | Sustainable Savannah Ecosystem Resources Management | | |
| | | | Develop systems and technologies for sustainable management of savannah woodland resources for environmental protection and enhance socio-economic development. | |
| | | Sustainable utilization and development of wetlands | | |
| | | | Promote sustainable management of mangroves to safeguard the wetlands and also protect endangered species like the marine turtles | |
| | | Development of Ghana's national strategy in response to the climatic changes. | | |
| | | | Develop capacities in public institutions and civil societies to engage in future international and domestic mechanisms that will respond to climate change. | WD<br>•Wildlife sta<br>and Compet |
| | | | | |
| **2** | **Promoting The Rehabilitation And Restoration Of Degraded Landscapes Through Plantations Development And Community Forestry** | | | |

| | | | | |
|---|---|---|---|---|
| | | Rehabilitation and Restoration of Degraded landscapes | | |
| | | | Develop systems and incentive packages to support public, private sector and community investment in reforestation and forest plantation development in degraded priority forest areas and private/community lands. | • Benefit Signed |
| **3** | **Promoting The Development Of Viable Forest And Wildlife Based Industries And Livelihoods, particularly In The Value Added Processing Of Forest And Wildlife Resources.** | | | |
| | | Development of forest based Industries | | |
| | | | Support the development and modernization of the tertiary wood Industries. | **TIDD**<br>• $M^3$-Volume approved<br>• $M^3$-Volume Inspection c<br>• $M^3$-Volume issued<br>• Registration exporters an<br><br>**WITC**<br>• SME train in Districts<br>• Training o<br>• Collaborat MCEs/DCE Association<br>• Customize Collaboratic institutions<br>• Training Technology accomplishe |
| | | Development of wildlife-based Industries | Promote sustainable development of wildlife-based Industries | |
| **4** | **Promoting And Developing Mechanisms For Transparent Governance, Equity Sharing And Peoples Participation In Forest And Wildlife Resource Management** | | | |

| | | | | |
|---|---|---|---|---|
| | | Transparent governance of forest and wildlife Resources | | |
| | | | Institute transparency, equity and legalize public participation in sustainable forest and wildlife resources management. | BS Agreem |
| | | Eliminating illegal logging and chainsaw operations | Develop Strategic National Plan to address illegal logging and chainsaw activities | |
| **5** | **Promoting Training, Research And Technology Development That Supports Sustainable Forest Management.** | | | |
| | | Promote training, research and technology Development | | |
| | | | Support the uptake and dissemination of information built on indigenous and scientific knowledge to improve on the management of forest and wildlife resources. | |
| | | | Increase Public Education and Create Awareness on the Value and Multiple Uses and benefits of Forests | **WD**<br>• Communitie Conservatio<br>• Schools ed Conservatio |
| | | | Support Research and Development to enhance efficiency in the wildlife industries | |
| **6** | **Enabling environment for FWP implementation (Supporting The Implementation Of The Forest And Wildlife Policy Objectives And Programmes)** | | | |
| | | Formulation and implementation of a comprehensive 20-year Forestry Development Master Plan to fit into the national poverty reduction strategy. | | |
| | | | Stimulate political and institutional support for the implementation of the forest and wildlife policies and programmes at all levels of governance. | |
| | | | Increase Public Education and Create Awareness on the Value and Multiple Uses and benefits of Forests | |
| | | | Support Research and | |

| | | | | |
|---|---|---|---|---|
| | | | Development to enhance efficiency in the wildlife industries | |
| | | | Develop sustainable and predictable financing instruments to support forestry sector activities | MLNR: N under way |