

**REPORT**  
JUNE 2015

# THE ROLE OF EXTRACTIVE RESOURCE REVENUES IN BRIDGING THE FINANCING GAP IN PRO-POOR SECTORS IN GHANA

THE CASES OF EDUCATION, HEALTH AND AGRICULTURE



**Africa  
Centre for  
Energy Policy**

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# EXECUTIVE SUMMARY

The budget is the government's key policy document. It should therefore be comprehensive, encompassing all government revenue and expenditure, so that the necessary trade-offs between different policy options can be assessed. In essence, national policy should be reflected in national budgets, which in turn must encompass prudent expenditure management that yields results.

Since 2002 some efforts have been made by Governments of Ghana to integrate Millennium Development Goals (MDGs) such as poverty and hunger reduction; universal primary education; improved health through reduced infant/child mortality and combating HIV/AIDS and malaria into the national development policy frameworks -- GPRS I (2003-2005) and GPRS II (2006 – 2009) and Ghana Shared Growth and Development Agenda (GSGDA) (2010-2013).

According to the Ghana Statistical Service (GSS) (2013), even though Ghana has made progress in achieving the MDGs, much work needs to be done to achieve

many of the goals by 2015. The GSS reported that while progress has been made in targets like poverty reduction, education and access to safe water, more work is required with respect to under-five, infant and maternal mortality as well as sanitation. The need for more work is imperative, considering the circumstance that a new universal sustainable development agenda will be launched in 2015 after the expiry of the Millennium Development Goals (MDGs).

The shift in emphasis to sustainability, specifically to matters relating to air, water and soil, echoes the importance of education, health and agriculture to human survivability. This shift also renders it very necessary for governments, including that of Ghana, to ensure that their budget policies and expenditure management are linked to facilitate the achievement of the MDGs. Since the MDGs are to be the foundation for the sustainable development agenda, any weaknesses therein will undermine the new agenda. It is consequently imperative that performances of previous budgets are evaluated in order to inform policy that can direct

progress and lay a firm foundation for the impending sustainable development agenda.

Prudent utilization of resources is thus imperative and monitoring of resource utilization for purposes of advocacy is essential. In order to do this effectively, there is a need to have a coherent body of data that capture information on sources, projections and allocations of government revenues to various sectors of the economy, and how these translate into social goods and services. Particularly, extractive resource revenues have been identified as providing significant sources of financing sustainable development. Ghana has been engaged in mining for more than a century and has recently since 2010 started exporting crude oil. These have brought in substantial revenues for the Government development Budget. For example, from 2011 to 2014, the Government received about US\$2.8 billion from the oil subsector alone. These revenues if invested well could reduce poverty in Ghana greatly.

However, it is important to state that many resource-rich countries that failed to invest their revenues in pro-

poor sectors have become impoverished and have often been associated with conflicts, social and environmental challenges. This phenomenon has been described as “resource curse”. With this in mind this study sought to:

- Conduct a three year review on the performance of the education, health and agricultural sectors in Ghana from 2011-2013, with the view to tracking budgetary allocations in these pro-poor sectors including extractive resource revenues; and major development achievements;
- Determine the size of the financing gap in the pro-poor sectors of education, health and agriculture;
- Determine the extent to which extractive resource revenues could bridge the financing gap to meet the development objectives of these sectors.

## METHODOLOGY

The methodology employed in this study involves three stages. In the first part, documentary-based research was conducted to review financing trends and policy performance in the education, health and agriculture

sectors (See references for documents).

The second part of the study is focused on measurement of the financing gap in the education, health and agriculture sectors. The financing gap for each sector was determined by the percentage gap between Ghana's public expenditure in the sector in percentage of total public expenditure; and the international financing benchmark for the sector. The percentage gap was converted into financial terms for the base year subject to data availability; and then adjusted for inflation for subsequent years.

The third part of the study contains analyses of the extent to which extractive resource revenues could provide the financing bridge for the education, health and agriculture sectors.

## KEY FINDINGS

i. There is no legal framework similar to the Petroleum Revenue Management Act that governs solid mineral revenues allocated to the budget. It is therefore not possible to track mineral revenues

to projects. Its impact on the social and economic development can therefore not easily be assessed.

ii. The significance of petroleum revenues in the education sector is derived from the fact that it represents a greater proportion of the capital budget particularly in 2014, about 37%. Thus, it appears that although ABFA was the least source of revenues for most of the period under consideration, its contribution to the capital budget makes it an important source of revenues for financing social development.

iii. The health sector over the period did not receive much attention in the allocation of ABFA. The ABFA was allocated to the sector in 2013, about GH¢29,900,000.00, constituting 7% of the capital budget for the year. However, the Government's Reconciliation Report for the 2014 fiscal year shows that there was no expenditure made in the health sector from ABFA in 2013. This does not only undermine budget credibility but also reflects divergence between allocations and disbursements, a regular feature of the budgeting process in Ghana.

- iv. The food and agriculture subsector budget received the greatest attention in pro-poor distribution of petroleum revenues. The sub-sector was allocated revenues from ABFA in each of the last three years; GH¢42,500,000.00 in 2012, GH¢20,000,000.00 in 2013 and GH¢52,180,591.00 in 2014. The agriculture sector share of ABFA was invested in a number of projects, which had significant implications for smallholder farmers. Thus, the choice of investment for the ABFA captured agriculture's role in redistribution of income, reducing income and social inequalities and reducing poverty.
- v. The study found that technically there is no financing gap for the education sector in Ghana since Ghana is performing better than targets set by international benchmarks for optimal public financing of education. However, the bulk of government budget in the education sector is committed to salaries and wages, and goods and services. The capital budget does not receive much attention resulting in infrastructure deficit, and its attendant challenges of low enrolment in schools. Therefore, in spite of Ghana's impressive performance against global benchmarks, there exist considerable financing deficit for educational infrastructure.
- vi. The average annual financing gap for the health sector is GH¢1,079.8 million and GH¢355 million for the agriculture sector. These add up to GH¢1,435,153,964.55. With average annual ABFA of GH¢1,548,8 million over the period 2013 to 2015 (projected), petroleum revenues are more than adequate to bridge the financing gap if these revenues were allocated to the two pro-poor sectors of health and agriculture.
- vii. For the agriculture sector, although the annual financing gap has been increasing over the years, the ABFA could offset the gap in 2012 if 59% of ABFA was spent on agriculture. Similarly, the financing gaps in 2013 and 2014 could be bridged if Government spent 63% and 33% of ABFA on agriculture respectively. In 2014, full financing of the agriculture sector gap from petroleum revenues could leave Government with about GH¢814 million to be spent on other sectors.



viii. In spite of the huge financing gap in the health sector relative to agriculture, about 90% of ABFA was enough to bridge the total financing gap in 2014. With oil production expected to increase as more oil and gas producing wells are brought on stream in 2016 and 2018, Government has sufficient financing relief to offset the financing needs of the health sector by committing a considerable proportion of ABFA.

## POLICY RECOMMENDATION

The following broad recommendations show that resource revenues can become very essential for financing national development priorities. They also demonstrate that Government could improve on its management, allocation and utilization of resource revenues by adopting new policies, legal frameworks and best practices.

i. To ensure the tracking of mineral revenues and enhance transparency and accountability in public spending from Ghana's mineral wealth, Government

must consider developing a legal framework similar to the Petroleum Revenue Management Act 815, for accounting for mineral revenue and reporting on its utilization through the budget process. The Extractive Industries Transparency Initiative (EITI) reporting so far has focused on receipts of mineral revenues but does not cover expenditure from mineral revenues.

ii. The use of petroleum revenues for capital investment must be encouraged as it does not only fulfill the requirement of Section 21(4) of the Petroleum Revenue Management Act (Act 815) but also builds the capital base of the economy to accelerate medium to long-term economic growth. Spending of resource revenues therefore should be based on a comprehensive public investment plan, which must make a cost-benefit analysis a mandatory requirement for selecting projects funded with resource revenues. This will provide consistency in the use of petroleum revenues for projects that add value to the economy on a sustainable basis. To this effect, Government must pass a Public Investment Management Law as a

matter of urgency.

- iii. Section 21(5) of the Petroleum Revenue Management Act 2011 (ACT 815) requires the Government to prioritize not more than four (4) areas for the use of ABFA. This implies that government could limit its priorities to one or two areas. Given the level of financing gap in the pro-poor sectors of agriculture and health, it may be appropriate to reduce the priorities to two sectors to ensure that they are fully funded to deliver quality services and development to the people.
  
- iv. To address the inefficiency in the utilization of petroleum revenues observed over the period 2011 to 2014 through thin distribution of ABFA over many sectors and projects, time over-runs and cost over-runs, Government must re-prioritize the use of petroleum revenues from non-essential spending like the office of government machinery, the National Disaster Management Organization; and non-social sectors such as the Venture Capital Fund and Exim Guaranty Funds which must be non oil revenues and private sector driven, and commit

the resources to social development sectors that are pro-poor and could make quick development impact in the country.

# INTRODUCTION

## Background

Ghana, located on the west coast of Africa, has an estimated population of 25 million (2010 Census). Ghana experienced rapid economic growth over the past several years resulting in substantial progress in reducing income poverty. Gross Domestic Product (GDP) growth rose from 8% in 2010 to close to 14.5% in 2011, making Ghana's economy one of the fastest growing on the continent. By 2012, Gross National Income (GNI) per capita reached US\$1,940, reflecting Ghana's middle-income status. This came about as a result of rebasing

of the country's GDP by the Ghana Statistical Service in November 2010. This revision changed Ghana's 2010 GDP from GH¢24 billion to GH¢45 billion—an increase of 60% (GSS 2010). The rebasing exercise included changing the base year from 1993 to 2006 and updating data sources and classification systems which allowed for more accurate representation of fast-growing service sectors (for example, telecommunications and banking) in the revised GDP (GSS 2010).

Poverty levels have been declining steadily with the number of people classified as poor decreasing from

about 8 million (i.e. slightly over 50% of the population) in 1992 to 6.3 million in 2006 (less than 30% of the population),(World Bank, 2012). In spite of these improvements, inequalities remain in Ghana, and are reflected in significant disparities in access to economic, social and political opportunities, mainly between the poorer three regions in the north and the rest of the country (Ibid, 2012).

Recent macroeconomic instability is putting at risk the gains in poverty reduction. The fiscal deficit reached 12% of GDP in 2012 and 10.9% in 2013, and the current account deficit reached 13% of GDP in both years. The Government of Ghana (GoG) tackled the fiscal imbalances by raising fuel prices as well as electricity and water tariffs, by around 60% in late 2013. The inflationary impact of the adjustment was reinforced by the Cedi (GHC) depreciation. Hence the higher prices imply a lower income in real terms, which has the risk of pushing many near-poor families into poverty. The pressure on household budgets and the impact on poor households have been exacerbated by the lack of liquidity of the government which has paid the Livelihood Empowerment Against Poverty (LEAP) program cash

transfers with significant delays as well as the District Assemblies Common Fund (DACF) which is a mechanism for redistribution of resources at the regional level. Capitation Grant payments to basic schools were also delayed in 2012 and 2013. Macroeconomic constraints disproportionately affect the poorer members of society.

Ghana expects to meet the Millennium Development Goal (MDG) targets for income poverty reduction, ending hunger, primary education completion, and gender equality. The review of progress towards the Millennium Development Goals (MDGs) depicts steady progress in many areas. The share of the population living in poverty nearly halved from 52% at the beginning of the 1990s to 28.5% by 2005-06. Based on trend data, the income poverty, hunger, and access to water goals are largely on track to be met by 2015<sup>1</sup>. At the same time, other important MDGs, such as sanitation, child and maternal mortality are still off-track and require more effort.

As related to the education MDGs, Ghana has made substantial progress since 1990 in terms of increasing the proportion of children completing a full cycle of primary schooling, with the primary completion rate estimated

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<sup>1</sup> When at least two observations are available after 1990, with a sufficient number of years separating them, the World Bank determines whether a country is on or off track to meet a given MDG by 2015. To do so, it compares the progress recorded so far with that needed to reach the MDG, under the assumption that progress becomes increasingly difficult the closer countries get to the goal. Technically, this is equivalent to comparing the annual growth rate between 1990 and today with the constant growth rate required to reach the MDG in 2015 from the situation in 1990.

at 89%<sup>2</sup> in 2010/2011, up from 79% in 1991. Despite this healthy progress, Ghana cannot fully achieve MDG2 by 2015, as there are still around 5% of children with no access to formal schooling, according to household survey data.

In terms of MDG3 on gender disparities in school enrolments, the ratio of girls to boys in primary and secondary education attained 92% in 2010/11; based on the improvement trend, Ghana is however not quite on track to achieve parity by 2015. This reflects that there are still gender gaps in school participation in the poorer parts of Ghana (World Bank, 2012; UNICEF, 2013; MOE 2014).

The relationship between good governance and better economic and social outcomes is increasingly becoming important. Transparency – openness about policy intentions, formulation and implementation – is a key element of good governance. The budget is the single most important policy document of governments, where policy objectives are reconciled and implemented in concrete terms (OECD, 2002). Budget transparency is defined as the full disclosure of all relevant fiscal information in a timely and systematic manner. According to the Government Finance Officers' Association (GFOA)

(2014) of the United States and Canada, a good budget should cover fiscal policy, and linkages to organizational goals and performance. It should also describe the budget process and budgetary techniques, and specific elements of the operating budget document.

The budget is the government's key policy document. It should therefore be comprehensive, encompassing all government revenue and expenditure, so that the necessary trade-offs between different policy options can be assessed. The budget, or related documents, should include a detailed commentary on each revenue and expenditure programme. Non-financial performance data, including performance targets, should be presented for expenditure programmes where practicable. In essence, national policy should be reflected in national budgets which in turn must encompass prudent expenditure management that yields results. These linkages, similar to views expressed by OECD (2002) and the GFOA (2014) had also been expressed at the Third International Roundtable on "managing for development results" in Hanoi in 2007. At this roundtable, it was surmised that budgeting and financial planning for results should ensure that there is clarity of policy, and that budgetary allocations need to reflect priorities. In addition, it was also concluded that

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<sup>2</sup> The completion rate reported here is based on grade 6 enrollments minus repeaters, whereas the completion rate reported in Ministry of Education documents includes repeaters and is therefore a little higher (91.6%).

spending has to be consistent with approved budgets, while results have to be measured and fed back into the policy process.

Since 2002, some efforts have been made by Governments of Ghana to integrate MDGs such as poverty and hunger reduction; universal primary education; improved health through reduced infant/child mortality and combating HIV/AIDS and malaria into the national development policy frameworks -- GPRS I (2003-2005) and GPRS II (2006 – 2009) and Ghana Shared Growth and Development Agenda (GSGDA) (2010-2013).

According to the Ghana Statistical Service (GSS) (2013), even though Ghana has made progress in achieving the MDGs, much work needs to be done to achieve many of the goals by 2015. GSS reported that while progress has been made in targets like poverty reduction, education and access to safe water, more work is required with respect to under-five, infant and maternal mortality as well as sanitation. The need for more work is imperative, considering the circumstance that a new universal sustainable development agenda will be launched in 2015 after the expiry of the Millennium Development Goals (MDGs).

The post-2015 development agenda is expected to build on the progress achieved through the MDGs' eight goals

that were established in 2000. The Secretary General of the United Nations reflected that the post-2015 agenda will need a new innovative and transformative means of implementation, including new partnerships that can work in an integrated manner, technology transfer, capacity building, information access, and monitoring and reporting for accountability.

The shift in emphasis to sustainability, specifically to matters relating to air, water and soil, echoes the importance of education, health and agriculture to human survivability. This shift also renders it very necessary for governments, including that of Ghana, to ensure that their budget policies and expenditure management are linked to facilitate the achievement of the MDGs. Since the MDGs are to be the foundation for the sustainable development agenda, any weaknesses therein will undermine the new agenda. It is consequently imperative that performances of previous budgets are evaluated in order to inform policy that can direct progress and lay a firm foundation for the impending sustainable development agenda.

Ghana's national budget is expected to be shaped by a multitude of consultative steps that should be on-going throughout government administrative levels on an annual basis, with each step offering an influencing opportunity for improved public finance management. The budget process is expected to start at the

community level, with harmonization of priorities at the metropolitan, municipal and district assembly levels and subsequently at the regional level, in accordance with a national development framework under the authority of the National Development Planning Commission (NDPC).

However, the actual process has minimal citizens' participation and does not reflect the aspirations of the people. It can be argued that the greatest weakness in public finance management occurs when disbursements and expenditures are not in line with stated budget allocations while the quality of public service delivery is poor. Furthermore, there is a challenge relating to monitoring to determine how revenues from the extractive sector and aid are effectively and efficiently channelled through the national budget to fund national priorities for development. Budget leakages (due to inefficiency/wastage) are enabled by weaknesses at local, regional and national levels and are exacerbated by limited public debate and transparency with respect to management of public finances.

Subject of major concern is the difficulty in accessing public information on the utilization of funds from petroleum, mining, aid and other sources. Such gaps in information make it difficult for civil society organizations and interested citizens to undertake evidence-based policy advocacy for increased allocation

to pro-poor investment and demand accountability and efficient utilization of resources, including those from the extractive sector and aid. Data unavailability is quintessential obstacle to challenging and motivating duty bearers to be more responsive, through their stewardship of public finances, to the poor and vulnerable in society, particularly because the extractive sector's negative externalities are felt mostly by such groups.

Mining, for instance, has been an important source of foreign exchange to Ghana. In 2012 the sector contributed 27% of the total tax revenue and 6% of the Gross Domestic Product (GDP), while corporate tax exceeded royalties. Since late 2010 when production of oil began, petroleum revenues have become an important source for financing the budget, and petroleum surpassed cocoa as the major foreign exchange earner in 2012. The extractive sector, on the whole, also accounted for 56% of exports in 2011, compared to its 12% share of exports in 2010. This makes the sector very relevant with respect to budget financing, especially now that the volume of aid inflows, particularly direct budgetary support, has been declining and many donors plan to exit by 2018. Prudent utilization of resources is thus imperative and monitoring of resource utilization for purposes of advocacy is essential. In order to do this effectively, there is a need to have a coherent body of data that capture information on sources, projections and allocations

of government revenues to various sectors of the economy, and how these translate into social goods and services. The harmonization and analysis of the requisite data will enable the establishment of a linkage between the budget, actual disbursements and expenditures and their contribution toward poverty reduction. With this in mind this study sought to:

- Conduct a three year review on the performance of the education, health and agricultural sectors in Ghana from 2011-2013, with the view to tracking budgetary allocations in these pro-poor sectors including extractive resource revenues; and major development achievements;
- Determine the size of the financing gap in the pro-poor sectors of education, health and agriculture;
- Determine the extent to which extractive resource revenues could bridge the financing gap to meet the development objectives of these sectors.

## Methodology

The methodology employed in this study involved three stages. In the first part, documentary-based research was conducted to review financing trends and policy performance in the education, health and agriculture sectors (See references for documents).

The second part of the study is focused on measurement of financing gap in the education, health and agriculture sectors. The methodology used follows international benchmarks on optimal public expenditure in these sectors. For the education sector, two targets for measuring optimal education financing were adopted - the UNESCO target of 6% of GDP; and the Muscat Agreement of 20% of total public expenditure. For the health sector, the Abuja Declaration for health sector financing at 15% of total national expenditure was adopted; whilst for the agriculture sector, the Maputo target of 10% of national expenditure was adopted. In addition to the Maputo target, the study also evaluated the financing requirement that would ensure Ghana reached a full middle-income country based on recommendation by RESAKSS (2011)<sup>3</sup>.

There were also definitional issues. For this study, a number of definitions were adopted. Public expenditure on education is defined by the World Development Indicators (WDI) as spending on current, capital and transfers from public institutions. It also includes spending funded by transfers from international sources to government.

Public expenditure on health is also defined by the World Health Organization (WHO) as expenditures on comprising the direct outlays earmarked for the enhancement of the health status of the population



and/or the distribution of medical care goods and services among population by the following financing agents: central/federal, state/provincial/regional, and local/municipal authorities; extra-budgetary agencies, social security schemes; parastatals. All can be financed through domestic funds or through external resources.

Public agricultural expenditure (PAE) is defined as expenditures incurred by public authorities in the agricultural sector. There are different classifications of what constitute the agricultural sector. The International Monetary Fund (IMF) classifies agriculture to include crops and livestock forestry, fishery, and hunting (IMF, 2001)<sup>4</sup>. The Food and Agriculture Organization of the United Nations (FAO) defines agriculture as crops, livestock, aquaculture, and agroforestry (FAO, 2012)<sup>5</sup>. The AU-NEPAD defines agriculture to include crops, livestock, forestry, and fishery (AU-NEPAD, 2005)<sup>6</sup>. For the purpose of this study and to track public expenditure in line with the Maputo Declaration, the definition by AU-NEPAD is adopted.

The financing gap for each sector was determined by the percentage gap between Ghana's public expenditure in the sector in percentage of total public expenditure; and the international financing benchmark for the sector. The percentage gap was converted into financial terms for the base year subject to data availability; and then adjusted for inflation for subsequent years.

The third part of the study contains analyses of the extent to which extractive resource revenues could provide the financing bridge for the education, health and agriculture sectors.

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<sup>3</sup>Republic of Ghana, Ghana: Long-Term Funding for Agricultural Growth, Poverty Reduction and Food Security, 2011, p3, [www.resakss.org](http://www.resakss.org)

<sup>4</sup>IMF (International Monetary Fund). 2001. Government Finance Statistics Manual 2001. Washington, DC.

<sup>5</sup>FAO (Food and Agriculture Organization of the United Nations). 2012. *The State of Food and Agriculture: Investing in Agriculture for a Better Future*. Rome.

<sup>6</sup>AU-NEPAD. 2005. *Guidance Note for Agriculture Expenditure Tracking System in African Countries*. Midrand, South Africa.

## Limitations

This study suffers from data reliability. Even though all the quantitative data were obtained from government sources, there were inconsistencies among the sources. The numbers varied from sources especially with respect to when the years overlapped. As best as possible, we have tried to reconcile all such inconsistencies.

Also, it was difficult to track mineral revenues in the Budget due to lack of a legal framework governing mineral revenue spending. Therefore tracking extractive resource revenues was limited to petroleum revenues. Also, in the 2014 Budget statement, the health sector was not allocated petroleum revenues. The analyses of allocation of resource revenues were therefore limited to agriculture and education sectors.

# SECTION 1

## EXTRACTIVE RESOURCE REVENUE MANAGEMENT IN GHANA

### 1.1. Introduction

Ghana's extractive resource revenues are mainly from solid minerals and oil and gas sectors. The Government budget over the years have been associated with mineral and petroleum revenues, which have become important sources of financing the government's development programme.

### 1.2. The Size of Resource Revenues

#### 1.2.1. Mineral Revenues

Ghana has been mining gold for more than a century and has since added other minerals like manganese and bauxite, Iron Ore, etc. to its extractive industry portfolio. As the 9th largest world producer of gold, Ghana contributes a lot to the global supply of gold. In 2011, total gold production in Ghana stood at 3.4 million Oz. It is estimated that by 2015, Ghana's stock of exploitable gold reserves could grow to 45.1 million Oz

(up from 38.6 million in 2010), after granting licenses to seven new companies in addition to the licenses that are already producing.

The mining sector has also contributed significant amount of revenues to the Ghanaian Government over several years and at one time was the backbone of the economy beside cocoa<sup>7</sup>. Mining revenues come from royalties, corporate income tax, pay as you earn personal income tax, and the withholding tax on dividends and

foreign outsourcing. Revenues also come from property rates and ground rent. In 2011, mining tax revenue was estimated to be 1.8% of GDP. However, overall, mining revenues have supported Ghana's export performance. For instance, the growth in gold production together with increasing world gold prices led to higher gold export receipts in Ghana rising from US\$0.7 billion in 2000 to US\$4.7 billion in 2011. The following Table shows that the Government share of mineral revenues has been increasing year-on-year.

**Table 1: Government Revenues from Mining 2005-2011 (GH¢)**

YEAR	LICENSE	PROPERTY	GROUND RENT	ROYALTY	CIT	DIVIDENDS	TOTAL
2005		253,103	4,002	23,293,296	10,222,868	6,862,456	40,635,725
2006		699,264	7,024	32,191,084	20,830,991	7,194,552	60,922,915
2007		884,811	1,625	40,836,760	15,573,250	3,853,442	61,149,868
2008		826,978	11,040	61,260,431	32,237,579	1,417,128	95,753,156
2009		913,773		96,618,197	17,501,129	2,477,830	117,510,929
2010		830,051		150,453,905	125,249,733	22,440,212	298,973,901
2011		482,092		218,151,362	499,825,765	44,012,872	762,472,091
Total		4,890,072	23,691	622,805,035	721,441,315	88,258,492	1,437,418,585

**Source:** Various GHEITI Reports

<sup>4</sup>GHEITI 2009, GHETI Aggregation and Reconciliation of Mining Sector Payments and Receipts (2004-2009), Ministry of Finance and Economic Planning (MoFEP). See also Amponsah Tawiah, K., and Dartey-Baah, K., (2011), The Mining Industry in Ghana: A Blessing or a Curse? International Journal of Business and Social Science, 2(12).

According to the Ghana Chamber of Mines, the mining sector contributed about GH¢1.46 billion to Ghana Revenue Authority (GRA) representing 27.04% of GRA's Total Direct Taxes in 2012. In terms of Corporate Taxes, the sector paid GH¢ 893.77 million to GRA, representing 36.98% of the total corporate tax collected in 2012. This shows a significant improvement in revenues over the

decade.

With mineral revenues estimated at 5.3% of GDP by 2015 and the possibility of increasing substantially as mining companies such as Newmont increase production, the mining sector could provide the needed fiscal space and become the anchor for accelerated development.

**Table 2. Estimates of Mineral Revenues in Ghana 2010-2015 (% of GDP) Fiscal Framework**

Item	2010	2011	2012	2013	2014	2015
Revenue	14.4%	17.5%	18.6%	18.7%	19.9%	20.3%
Inc. from mineral resources	1.1%	2.9%	4.1%	4.6%	5.2%	5.3%

**Source:** Boakye et al (2012)

The size of the revenues from the mining sector has been increasing annually on account of increasing gold production and as well as changes in the fiscal regime. Ghana's fiscal regime has been generous for several years for the purpose of attracting private investments. Mining companies have been exempted from customs import duty for plant, machinery, equipment and accessories imported solely and exclusively for mining activities. Also, the staff(s) of mining companies is exempt from the payment of income tax on furnished accommodation at the mine site. Further, the regime allows front-

loading the amortization of capital spending through capital allowances for reconnaissance, exploration, and extraction.

The last five years however saw a number of fiscal reforms aimed at increasing government share of mineral revenues. The reforms include; an amendment to the Mining and Minerals Act of 2006 to change royalty from a range of 3% to 6% to a fixed 5%; an increase in corporate tax for mining companies from 25% to 35%, annual capital allowance of equal instalment of 20% for

<sup>5</sup>Minerals Law (PNDC Law 153) of 1986 and Mining and Minerals Act 703 of 2006.

five years, introduction of windfall tax of 10% and ring fencing of cost. However, the implementation of some of the reforms have faced difficulties. For example, the Windfall Tax Bill, which had been submitted to Parliament,

was withdrawn due to protests by mining companies. The following Table summarizes the fiscal regime under various legal frameworks in the mining sector.

**Table 3: Comparison of Mining Fiscal Regimes under various Laws**

Item	PNDCL 153 1986	Amendments to Law 153	ACT 703 2006	2010 Act 703 Amendment	Budget Law 2012
<i>Incentives</i>					
Initial capital allowance	75%		75%	80%	20% each for five years
Subsequent capital allow	50%		50%	50%	20%
Investment allowance	5%		5%		5%
Carried forward losses for purposes of taxation	Up to five years		Up to five years		Up to five years
Offshore retention of sales	25% to 80%		25% to 80%		25% to 80%
R&D allowance	Exempt		Exempt		Exempt
Mineral duty	Exempt		Exempt		Exempt
Import duty	Exempt		Exempt		Exempt
Foreign exchange tax	Exempt		Exempt		Exempt
Import licence tax or import levy	Exempt	Exempt	Exempt		Exempt
Gold export levy	Exempt	Exempt	Exempt		Exempt

Item	PNDCL 153 1986	Amendments to Law 153	ACT 703 2006	2010 Act 703 Amendment	Budget Law 2012
<i>Taxes</i>					
Corporate income tax	45%	35%	25%		35%
Royalty	3% to 12%	3% to 6%	3% to 6%	5%	5%
Withholding tax	10%	10%	10%		10%
Capital gain tax	10%	10%	10%		10%
Additional Profit Tax	25%	0%	0%		10%
National Reconstruction Levy		2% of before	Exempt		Exempt
<i>Others</i>					
Govt. equity participation in mining lease	10% free carried interest with option to increase to 30% with additional paid interest		10% free carried interest, no option for acquisition of further shares		10% free carried interest, no option for acquisition of further shares

**Sources:** Government of Ghana, Ministry of Lands, Forestry and Mines (Mines Section) (2006, 1986), IRS (2000).

### 1.2.2. Petroleum Revenues

The discovery of oil and gas in the Jubilee Field in 2007 ended Ghana's long search for commercially viable discovery. With proven reserves of about 1.8 billion barrels of crude oil, Ghana was on its way to joining the league of oil producing countries. Commercial

production of oil commenced in November 2010 and to date more than 100 million of crude oil has been exported from the Jubilee Field. Ghana has subsequently become a net producer of oil since 2013.

Petroleum revenues have since 2011 become a feature

of Ghana's annual Budget. The revenues have increased from US\$444 million in 2011 to US\$987 million in 2014. Thus by the end of 2014, Ghana earned a cumulative amount of US\$2,810,533,340.7. Petroleum receipts in Ghana follow the petroleum fiscal systems negotiated in Petroleum Agreements with International Oil Companies and National Oil Companies. The fiscal terms, which determine the petroleum streams, are defined in Section 6 of the Act 815 as follows:

- i. Royalties, additional oil entitlements, surface rentals, other receipts from any petroleum operations and from the sale or export of petroleum;
- ii. Any amount from direct or indirect participation of

- government in petroleum operations;
  - iii. Corporate income taxes in cash from upstream and midstream petroleum companies;
  - iv. Any amount payable by the national oil company as corporate income tax, royalty, dividends, or any other amount due in accordance with the laws of Ghana; and
  - v. Any amount received by government directly or indirectly from petroleum resources not covered by paragraphs (a) to (d) including where applicable, capital gains tax derived from the sale of ownership of exploration, development and production rights.
- The following Table shows the contributions of the various revenues streams over the period.

**Table 4: Petroleum Receipts (US\$)**

Item	2011	2012	2013	2014
Royalties – Jubilee	122,941,144	150,642,450	175,006,213	192,660,810.66
Royalties – Saltpond	0	104,193	403,276	151,986.14
Carried and Participating Interest	321,183,580	390,428,872	453,573,866	499,330,322.56
Corporate Income Tax	0	0	216,985,498	284,546,191.31
Surface Rentals	0	448,225	798,332	907,050.59
PHF Interest	0	0	0	124,082.72
2013 Price Differential				297,248.72
<b>Total</b>	<b>444,124,724</b>	<b>541,623,740</b>	<b>846,767,184</b>	<b>978,017,692.70</b>

**Source: Various:** Petroleum Annual Report, 2012, 2013; Reconciliation Report on Ghana Petroleum Funds, 2013.

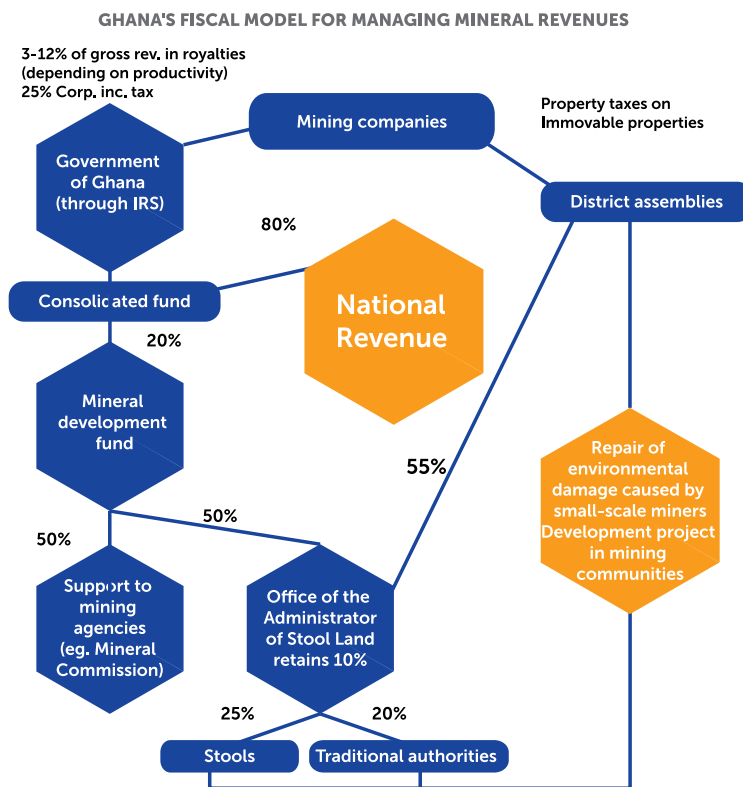


## 1.3. Framework for Distributing Extractive Resource Revenues

### 1.3.1. Mineral Revenues

The mode of distribution of resource revenues varies between solid mineral and petroleum. The current regime for mineral revenue sharing in Ghana allows statutory earmarking of mineral revenues. The Central Government allocates 80% of the Government revenue entitlement and cedes 20% to impacted communities. The distribution of mineral revenues has undergone modifications over the years mostly through administrative fiat<sup>9</sup>. However, apart from this constitutional provisions related to the distribution of stool land royalties; there exist no further statutory requirements governing the distribution of benefits from mining. Some of the rules have gone through modifications usually by administrative fiat.

Figure 1: Ghana's Fiscal Model for Managing Mineral Revenues



Source: after Botchie et al. (2007)<sup>10</sup>.

<sup>9</sup>Administrative fiat of 1991 (letter no. AB.85/156/01)

<sup>10</sup>Botchie, G., Dzanku, F. M. and Akabzaa, T. (2007) *Open Cast Mining and Environmental Degradation Cost in Ghana*, Technical Publication of the Institute of Statistical, Social and Economic Research, Occasional Paper, Accra: University of Ghana.

The distribution of revenues between the Central Government and communities follows the following order:

- a. The Central Government share of revenues (80%) is transferred to the consolidated fund for use in the budget. However, ceded revenues (20% of State entitlement) are shared among beneficiaries in the following order.
- b. The total ceded revenue is transferred to the Mineral Development Fund.
- c. Of the 20% ceded revenues, 10% is shared to mining agencies such as the mineral commission.
- d. The remaining 10% in the Mineral Development Fund is allocated to the Office of the Administrator of Stool Lands for sharing to community beneficiaries.
- e. Of the total transfers to the Administrator of Stool Lands, 1% is retained by the Administrator. The balance of 9% when converted to 100% is shared as follows - the Stools (25%), the Traditional authorities in the area (20%); and the District Assemblies (55%).

For this study, it was difficult to analyze the trends in the spending of solid mineral revenues due to lack of data on distribution of mineral revenues; and lack of a mineral revenue management law that requires disclosure of spending.

### **1.3.2. Petroleum Revenues**

One of the major provisions in the law covers the spending

guide, which captures the essence of government policy for petroleum revenues. Section 18(2) of the law provides that “The exact percentage of the Benchmark Revenue which shall be allocated annually to be used as the Annual Budget Funding Amount shall be guided by a medium-term development strategy aligned with a long term national development plan, absorptive capacity of the economy and the need for prudent macroeconomic management”.

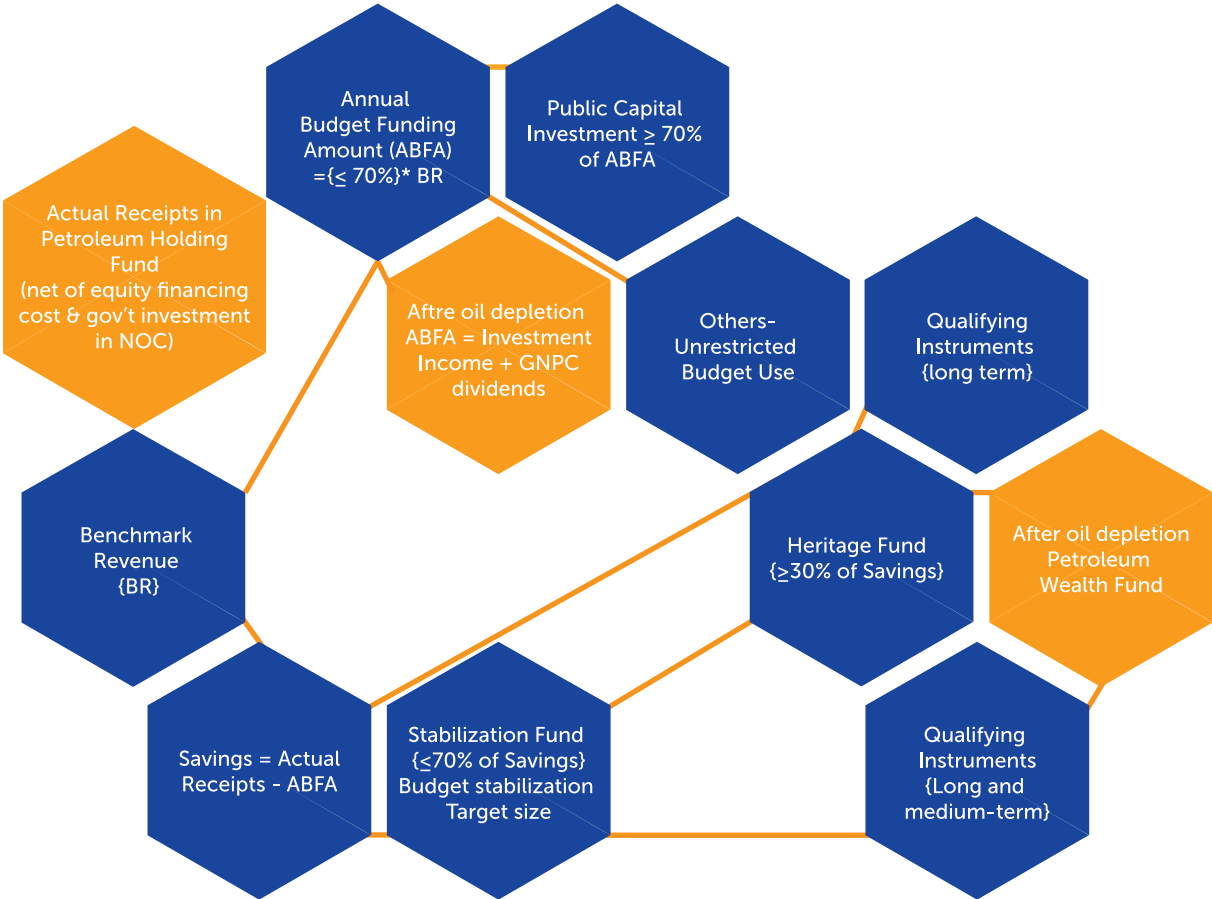
The law further defines specific spending objectives of the Annual Budget Funding Amount (Section 21(2)) as:

- a. to maximize the rate of economic development;
- b. to promote equality of economic opportunity with a view to ensure the well-being of citizens;
- c. to undertake even and balanced development of the regions

The guide to spending petroleum revenues as comprehensively articulated in the law significantly affect the policy choices of how much to spend and save, how much to spend on capital assets and services. But the more important policy choice that cannot be addressed in the law but through a good public financial management system and guided by Government’s development objective is whether to place premium on spending efficiency, or equity in the distribution of projects funded by petroleum revenues or both.

Figure 2: Schematic Presentation of Ghana's Fiscal Model

HOW MUCH AND WHERE TO SPEND IN GHANA



The guide to spending petroleum revenues as prescribed in the Petroleum Revenue Management Act provides both restrictions and discretion in respect of the allocation and disbursement of revenues. Some of the restrictions in the law are:

- a. All petroleum revenues received shall be accounted for in the Ghana Petroleum Holding Fund
- b. A portion of the revenues shall be transferred to the Ghana National Petroleum Corporation (GNPC). This will consist of its equity financing costs and not more than 55% of net carried and participating interests to be used for investments.
- c. The GNPC is to spend its share of net carried and participating interests on activities approved by Parliament.
- d. Determination of the Benchmark Revenue before the 1st September of every year which is the balance of petroleum revenues received in the year after subtracting the amount transferred to the GNPCs.
- e. Not more than 70% of the Benchmark Revenue to be transferred to the Government Budget as the Annual Budget Funding Amount (ABFA)
- f. The balance of Benchmark Revenues after deducting the Annual Budget Funding Amount to be transferred to the Ghana Petroleum Funds consisting of the Ghana Stabilization Fund; and the Ghana Heritage Fund.
- g. Of the total transfers to the Ghana Petroleum

Funds, a minimum of 30% to be transferred to the Ghana Heritage Fund, and the balance to the Ghana Stabilization Fund.

- h. The Minister of Finance is to sign an Operational Management Agreement with the Bank of Ghana for the management of the Ghana Petroleum Funds including investing the Funds in conservative, less risky qualifying instruments.

These restrictions are presented in the Fiscal model above. The Minister of Finance is required to formulate further regulations for the effective management of petroleum revenues. These implementing regulations are expected to provide clarity on grey areas in the law as well as address operational challenges in the implementation of the law. However, since March 2011, when the law came into effect, the Minister is yet to issue implementing regulations.

### **1.3.3. Allocation and Utilization of the Annual Budget Funding Amount (ABFA)**

The Annual Budget Funding Amount is the proportion of petroleum revenues allocated to the annual budget of the Government to support development financing. The Act 815 provides that a larger share of ABFA, a minimum of 70% should be devoted to capital spending. To ensure that ABFA is productively invested, Section 21(2) d of the Act further requires its use to be *“guided by a medium-term expenditure framework aligned with a long term*

*national development plan*". Ghana does not have a long-term national development plan and this weakness has been addressed in Section 21 (3) of the Act.

*"Where the long-term national development plan approved by Parliament is not in place, the spending of petroleum revenue within the budget shall give priority to, but not be limited to programmes or activities related to:*

- a. Agriculture and industry;*
- b. Physical infrastructure and service delivery in education, science and technology;*
- c. Potable water delivery and sanitation;*
- d. Infrastructure development in telecommunication, road, rail and port;*
- e. Physical infrastructure and service delivery in health;*
- f. Housing delivery;*
- g. Environmental protection, sustainable utilization and protection of natural resources;*
- h. Rural development;*
- i. Developing alternative energy sources;*
- j. The strengthening of institutions of government concerned with governance and the maintenance of law and order;*
- k. Public safety and security; and*
- l. Provision of social welfare and the protection of the physically handicapped and disadvantaged citizens."*

It was certain during the formulation of the Act 815 that

allocating petroleum revenue to all these areas would undermine the efficient use of the resources. To address this, the Act provides in sections 21(5&6) respectively as follows:

*"In order to maximize the impact of the use of the petroleum revenue, the Minister shall prioritize not more than four areas specified in subsection (3) when submitting a programme of activities for the use of the petroleum revenue"*

*"The programme shall be reviewed every three years after the initial prioritization, except that in the event of a national disaster, the Minister may make a special request to Parliament for a release of revenue"*.

The spending of ABFA over the four-year period under consideration (2011-2014) has focused on the following four priority areas:

- a. Expenditure & Amortization of Loans for Oil and Gas Infrastructure
- b. Road and Other Infrastructure
- c. Agriculture Modernization
- d. Capacity Building (Including Oil and Gas)

The following Table 5 presents allocation of ABFA to the priority areas over the period.

**Table 5: Spending of ABFA by Priority Area**

Item	2011 (GHC)	2012 (GHC)	2013 (GHC)	2014 (GHC)
Expenditure & Amortization of Loans for Oil and Gas Infrastructure	20,000,000	100,000,000	137,920,847	163,084,572
Road and Other Infrastructure	227,641,768	232,403,269	372,074,147	215,691,357
Agriculture Modernization	13,147,652	72,471,824	13,604,329	170,624,180
Capacity Building (Including Oil and Gas)	750,000	111,959,738	20,183,359	32,583,053
Sub-Total				549,400,109
Balance as at end 2014	0	0	0	666,058,058
Total	261,539,420	516,834,831	543,782,682	1,215,458,167.42

**Source:** Various – 2012 and 2014 Annual Reports on the Petroleum Funds published by Ministry of Finance; The 2013 and 2014 Reconciliation Report on the Ghana Petroleum Holding Fund.

# SECTION 2

## PUBLIC EXPENDITURE TRENDS IN PRO-POOR SECTORS OF EDUCATION, HEALTH AND AGRICULTURE

### 2.1. Introduction

Public expenditure management has become central to prudent and efficient allocation of public resources. The essence of public expenditure is to translate financial resources to service delivery for the improvement of the well being of the citizens. In Ghana, the social services sectors provide most of the services citizens rely on. The education and health sectors continue to be the backbone of the country's social and economic development. Agriculture and food security ensures that industry meets its material needs whilst the nutritional

needs of citizens are not compromised. However, the size of public investments in these sectors and the efficiency of these investments determine to a large extent the contributions they could make to the development efforts of the country.

In this section, trends in public expenditure in the education, health and agriculture sectors have been reviewed as well as the development achievements from policy interventions by government.

## 2.2. Education Sector

### 2.2.1. Education Sector Budget by Sources of Revenues and Spending Type

The education sector is allocated revenues from Government of Ghana, Internally Generated Funds, Development partners and petroleum revenues. Over the last three years, the GOG sources dominated the budget for the sector. The sector by far constitutes the highest

budget in the overall budget for all years. However, due to the larger numbers of employees in the sector, the highest proportion of the budget representing 73% and 70% of the total sector budgets in 2012 and 2013 respectively; and 78% in 2014 were committed to wages and salaries (See Table 6). Thus, the size of the capital budget, which averaged 5% of the total sector budget, does not reflect Government's policy of expanding education infrastructure.

**Table 6: Budget Allocation to the Education Sector by Source of Revenue (GH¢) (2012-2014)**

Expenditure Type	Year	GOG	IGF	DONOR	SIP	ABFA	Total	ABFA (%total)
Wages & Salaries	2012	1,697,135,279	-	-	-	-	1,697,135,279.00	0%
	2013	2,703,339,343.00	-	-	-	-	2,703,339,343.00	0%
	2014	4,387,062,473.40	-	-	-	-	4,387,062,473.40	0%
Goods & Services 2012	2012	51,477,820.00	423,596,030.00	42,403,822.00	-	10,000,000.00	527,477,672.00	2%
	2013	36,482,023.00	677,809,764.00	16,885,442.00	146,697,413.00	-	877,874,642.00	0%
	2014	166,096,841.37	948,612,841.50	38,473,992.94	-	-	1,153,183,675.82	0%



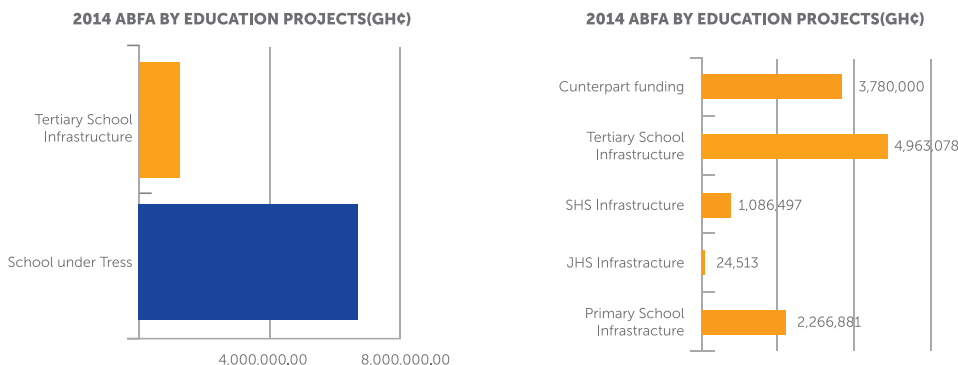
Expenditure Type	Year	GOG	IGF	DONOR	SIP	ABFA	Total	ABFA (%total)
	2012	2,173,295.00	71,887,140.00	87,709,902.00	-	10,000,000.00	101,627,217.00	10%
	2013	4,335,723.00	211,170,548.00	67,541,769.00	55,000,000.00	10,000,000.00	140,024,198.00	7%
	2014	7,668,065.51						

**Source:** Government of Ghana – Budget and Policy Statements (2011, 2012, 2013, 2014)

The ABFA was allocated to the sector for goods and services and capital expenditure. The significance of petroleum revenues in the education sector is derived from the fact that it represents a greater proportion of the capital budget particularly in 2014, about 37%. Thus, it appears that although ABFA was the least source of revenues for most of the period under consideration, its contribution to the capital budget makes it an important

source of revenues for financing social development. From Figure 3, it can be seen that the utilization of ABFA in education projects weighed heavily on primary education in 2013, which received 84% of the education sector share of ABFA. This falls in line with the argument that which is believed to have the highest returns on the economy. It also reflects the social significance of spreading literacy.

**Figure 3: Expenditure from the Annual Budget Funding Amount on Education**



**Source:** Reconciliation Report on the Ghana Petroleum Holding Fund, 2014.

However, in 2014, tertiary education infrastructure was more prioritized in the allocation receiving 41% of the sector share of ABFA. These were invested in the administration block of the KNUST Medical School, student hostels, staff accommodation and biomedical sciences laboratory.

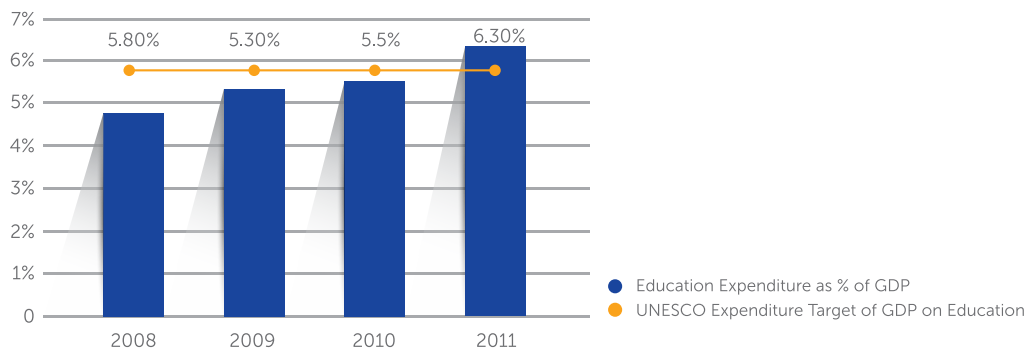
There were no allocations of ABFA to the education sector in 2011 and 2012.

### 2.2.2. Education Spending As a Percentage of GDP

As indicated earlier, Ghana had consistently shown strong commitment to funding education. In spite of a decline in education spending from 7.9% GDP (27.2% of GoG expenditure) in 2012 to 6.1% (20.7% of Government expenditure) in 2013, it was still within global education

expenditure thresholds (UNESCO target of 6% GDP). In the past three years, public education spending has fluctuated around 22-25% of total public spending. It is also worth noting that the education sector employs around 40% of the total civil service, and in recent years, as much as 97% of the core Government of Ghana education budget financed salaries. Further, salaries are often under-budgeted and end up crowding out other types of expenditures during budget execution. The largest source of funding is the Government of Ghana (76% of all funds), however of this 97% is allocated to compensation, leading to heavy reliance on other sources to pay for goods and services and assets, which make up 21% and 5% of total expenditure respectively (ESPR 2014). This is not new (World Bank, 2012; MOE, 2014).

**Figure 4: Education Expenditure as a Percentage of GDP compared with UNESCO benchmark Percentage GDP Expenditure on Education.**



Source: Ministry of Education, 2012

Figure 4 shows that In 2011, public expenditure on education in Ghana as a percentage of GDP stood at 6.3% —above the African Union average and suggested target of 6% for a middle-income country. A comparison of Ghana’s public expenditure on education as a percentage of GDP and total public expenditure with other countries shows that expenditure on education in other African countries equals 11–28% of total public expenditure (compared to 18–27% in Ghana) and ranges from 2% to 8% of GDP. Public expenditure on education in a percentage of GDP in OECD countries stands at 5.6% and ranges from 4.5% to 7% of GDP (Darvas and Balwanz, 2013).

It must be noted that the figures used in the above diagram were calculated using the rebased GDP. Prior to rebasing the GDP, it was estimated that Ghana was spending the equivalent of 8–10% of its GDP on education on an annual basis. In November 2010, the Ghana Statistical Service “rebased” Ghana’s GDP. This revision changed Ghana’s 2010 GDP from GH¢24 billion to GH¢45 billion—an increase of 60% (GSS 2010). The rebasing exercise included changing the base year from 1993 to 2006 and updating data sources and classification systems which allowed for more accurate representation of fast-growing service sectors (for example, telecommunications and banking) in the revised GDP (GSS 2010).

### **2.2.3. Major Development Achievements in the Education Sector**

In their analysis of education expenditure in Ghana, Darvas and Balwanz (2014) and others observe that in the past decade, public finance of education in Ghana has demonstrated four characteristics.

- a. A lot of money is spent on education in Ghana: education accounts for 18–27% of public expenditure, equal to 5–6% of Ghana’s GDP.
- b. Personal emoluments (PE) have accounted for over 97% of government expenditure in basic education over the past 5 years. PE expenditure does not appear constrained by Ministry of Finance budget ceilings and annually crowds out expenditures in other budget categories (for example, service and investment).
- c. Education financing is fragmented among a number of sources and among an even larger number of flows of funds. Basic schools in Ghana have very little financial autonomy—teachers and resources for goods and services generally flow from centralized structures.
- d. In terms of allocation of spending to levels of education in Ghana, Primary education takes the largest amount of compensation, followed by JHS, SHS and then Tertiary. Tertiary education receives the largest proportion of Goods and Services spending, followed by SHS, and both of these levels generate

substantial revenues through IGF. For assets, Primary education receives the most, followed by SHS and Tertiary education.

- e. The complexity of education finance sources and delivery systems complicate efforts to improve accountability.
- f. In terms of spending against the allocated budget, in total the spending was 152% of what was allocated for Education. The over expenditure comes from compensation, which was allocated GH¢2.7 billion but spending was GH¢4.3 billion. Compared with 2012 when the execution rate for compensation was 263% (see ESPR, 2013), and demonstrates again the efforts made to curtail the wage bill in the sector.

Major achievements from the use of the education budget are examined as follows.

**a. Access to basic education has improved significantly**

Ghana has made significant progress towards getting close to universal primary education. Since 2008, government policy has been to provide eleven years of universal basic education (two years of Kindergarten, six years of Primary, and three years of Junior High School). Enrolments have increased rapidly in all three sub-cycles in recent years: between 2002/03 and 2011/12, gross enrolment rates increased from 49 to 99% in Kindergarten, from 76 to 96% in Primary, and from 63 to 81% in Junior High (JHS). The primary completion rate

(PCR) attained 89% in 2010/11.

The share of girls in primary school has improved from 47.6% in 2002/3 to 48.9% in 2011/12, but wider gaps persist in the rural areas, particularly affecting the last grades of primary school. The share of girls is lower in Junior High School (47.4%) and Senior High School (45.4%).

The dramatic increase in school enrolments has been driven mostly by a concerted effort to build up the supply of schooling combined with the elimination of fees, followed by the introduction of the capitation grant. Government eliminated the last remaining school fees and levies in 2004, introducing at the same time a capitation grant to compensate schools for the loss of revenue. The capitation grant was piloted in 2004 under a World Bank project in 40 deprived districts, and mainstreamed to all schools in 2005 with government funding. The School Feeding Programme has supplemented the capitation grant with the provision of one hot meal daily for children in selected public schools. The provision of exercise books and school uniforms has further lessened the burden of parents, and motivated children to attend school. On the supply side, teacher supply has been increased over the years; and school infrastructure has been increased with increasingly better classrooms. But according to a UNICEF study (2013) there are still an estimated 300,000-800,000

children who remain out of school.

There is also an average annual dropout rate of<sup>11</sup> 4.8% at basic school level. Specific district-by-district mapping of out-of-school children and further analysis of the Population and Housing Census report (GSS, 2010) reveals even greater numbers of out-of-school children, who may actually include school dropouts.

**b. Poor quality of education/ learning outcomes remains a big challenge:**

Access to basic education for the most disadvantaged groups in society continues to be a focus of national and international policy discourse and agenda. However, there is increasing concern that for many countries, improved access has been achieved at the expense of quality, and that this has affected particularly disadvantaged groups, especially poor rural girls.

Perhaps, the level of quality of education remains the biggest challenge to Ghana in spite of the huge investments that have been made over the years. The wide disparity in the delivery of quality education in Ghana has led to what has become known as the *missing middle* in Ghana's education (Darvas and Balwanz, 2013). This means that in all quality assessments of learning outcomes, there are extremely good students

and extremely bad ones, with none in the middle, thus accounting for a yawning gap between endowed and deprived schools. Learning outcomes in basic schools of Ghana are assessed by the Basic Education Certificate Examinations (BECE), the Early Grade Reading and Mathematics and the National Education Assessment.

The National Education Assessment (NEA) is a biennial nationally and regionally representative measure of pupil competency and proficiency in Literacy and Numeracy at primary grade 3 and 6. It has been carried out since 2005. The score for minimum competency is achieved at 35% score of test items by pupils and proficiency is attained by a 55% score of test items. In the recent Early Grade Reading and Mathematics Assessment (EGRA/EGMA, 2013) to assess the foundational skills in reading and maths of primary 2 pupils, only 2% of them could read with fluency and comprehension.

The results also indicate that in both English and mathematics, at P3 and P6, over 60% of students attained the minimum competency expected for that level. Noteworthy is the progression between P3 and P6, as in both subjects the proportion below minimum competency falls and more students meet minimum competency. In English, the proportion of students meeting proficiency increases between P3 and P6, from

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<sup>11</sup> The Ghana Demographic and Health Survey (GDHS) report, 2009

28.4% (2011) to 39.0% (2013). However, the proportion who are proficient in mathematics falls, from 22.1% at P3 down to 10.9% at P6, suggesting a particular barrier to teaching and learning of numeracy in Primary grades. For English at P3, while the percentage of students reaching proficiency has increased steadily since 2007, the percentage below minimum competency increased quite significantly between 2011 and 2013, and the percentage achieving either minimum competency or proficiency in 2013 was 58.1% compared with 65.2% in 2011.

Similarly, for English at P6, 68.8% achieved either minimum competency or proficiency in 2013, compared with 78.9% in 2011. Similarly, an Early Grade Reading Assessment (EGRA) for public schools in 2013 revealed that by the end of P2, many public school pupils could not yet read with comprehension. The EGRA revealed that while pupils struggle more with oral understanding of English language than Ghanaian language, when it came to reading they were slightly more comfortable with English letters and words than Ghanaian. These weak results are clearly unsatisfactory given the large investments made in basic education in recent years. Moreover, they signal that improving learning is an urgent need for the sector.

A comparison with other countries in Sub-Saharan Africa shows that Ghana is not alone in facing the issue of weak

learning outcomes (children unable to read a single word on an oral reading test in grade 3 were 1% in Liberia, 18-20% in Senegal, 27% in The Gambia, 28% in Malawi, 36% in Ethiopia, and 57% in Mozambique). Further, Ghana is one of the few countries that are already making some progress in this area, as demonstrated by the small improvement between 2005, 2009 and 2013 in the NEA assessment in English and Mathematics. Ghana also improved its score between 2003 and 2007 on the Trends in International Math and Science Study (TIMSS) assessment of 8th graders in Science and Mathematics (World Bank, 2013). Learning outcomes in basic schools are however, clearly unsatisfactory. Improving learning should therefore be a pressing need for the sector and a Government priority.

### **c. Gender parity in basic schools has improved**

Gender Parity Index (GPI) is a key indicator for achieving education for all. Ghana missed the 2005 target for achieving gender parity but has made significant progress since. Gender parity has been recorded at the KG level: 1.03 in 2012/13, even though slightly dropping to 1.01 in 2013/2014 but still an indication that about equal numbers of boys and girls are enrolling into basic school. The GER in deprived districts however witnessed a drop in GPI from 1.02 in 2012/13 to 0.99 in 2013/14 (MoE, 2014). Granted that the general progress being made at achieving a high Net Enrolment at the basic school level, the drop in GPI particularly in deprived districts is

an issue of great concern. Indeed research is required to unearth the underlying causes, and to engage in targeted interventions to reverse the situation.

In terms of BECE performance, just as there are fewer above average students in the three regions of the North of Ghana and the Volta region, compared with the rest of Ghana, females are only above average in English, ahead of their male counterparts. The male counterparts are widely ahead in Mathematics, Science and Social Studies. To increase enrolment, retention, completion and performance of girls at the JHS, and attain GPI particularly in deprived districts, the Ministry of Education (MoE) collaborated with the education sector partners to develop the Girls Participatory Approaches to Students Success (PASS). The content of the GPASS programme include facilitation of Girls' clubs in schools and scholarships to needy girls. The programme has since been piloted in some districts and some 55,000 girls have received scholarship to enable them stay in school and learn (MoE, 2014).

According to the Demographic and Health Survey (DHS) 2008, over 65% of girls over age 15 in the Northern region have received no formal education compared with the national average of 21%. In the 2011/12 school year, the share of girls in grade 6 is 48% at national level, but only 44% in the Northern region. The preliminary results for the 2011 NEA reflect wide gaps in learning

between Northern, Upper West and Upper East Regions and the rest of the country. The same pattern holds true for the Basic Education Certificate Examination (BECE), a comprehensive leaving test at the end of lower secondary school. In 2008/09, the bottom five performing districts on BECE English exams were all found within the Northern region.

Despite the weaker education outcomes, deprived districts do not receive their fair share of public expenditures on education. About 60% of students in the Northern region attend primary schools with per child expenditure (PCE) within the bottom third of the nation (PDA, 2012). Thus, instead of receiving extra support to assist these districts to catch up to the rest of the country, schools in poorer districts struggle with limited resources. Poorer districts, mainly concentrated in the north, have far weaker education outcomes than other parts of the country; yet, they do not receive their fair share of education spending. Poverty is largely concentrated in the northern half of Ghana, particularly in the Northern, Upper West and Upper East Regions. Children from these parts, particularly girls, have lower rates of school participation and weaker learning outcomes.

**d. Generally, there are enough teachers but too many are untrained- and attracting and retaining qualified teachers in remote rural areas is a considerable challenge.**

The Pupil Teacher Ratio (PTR) at the primary level has remained stable over the past decade, at around 34 in public schools, despite the sharp increase in enrollments. This is a result of recruitment of a large number of new teachers, many of them untrained. Between 2004/05 and 2010/11 the total number of teachers in public basic schools grew by 48%, almost keeping pace with enrollment growth (51%). However, the share of untrained teachers increased over the period from 30% in 2004/05 to the current 36%, and the Pupil Trained Teacher Ratio (PTTR) in public basic schools rose from 40:1 to 45:1. The PTTR is highest in Kindergarten (96:1) and primary (54:1) and low in JHS (22:1).

As a result of weaknesses in teacher deployment and difficulties in retaining trained teachers in remote, impoverished areas with poor infrastructure and sanitation, trained teachers are more likely to work in urban or peri-urban schools. As a consequence, there are more than 1,700 public primary schools without a single trained teacher. Further, in ten districts in the Northern, Upper West, Upper East and Western Regions, there are over 155 students for every trained teacher.

#### **e. Improved Transition from Basic to Senior High School**

Retention in school is the logical basis for transition to higher levels. Retention rates show what proportion of a cohort's entrants into P1 or JHS1 is still in school in

the final year. It is the reason why enrolment numbers at P1, P6, JHS 3 as well as Basic Education Certificate Examination (BECE) pass rates are pre-conditions for assessing the level of deprivation of a school. The primary level witnessed a marginal increase in retention from 81% in 2012/2013 to 82% in 2013/2014 but that for JHS decreased from 79% in 2012/14 to 78% in 2013/2014. The implication is that a significant number of children drop out of school at both primary and JHS levels, and more so, at the JHS level. Therefore an average enrolment of 376,123 students-cohort-(2012) into Senior High Schools and 363,662 students in 2013, besides indicating a decline in transition from basic school to Senior High School, it also implies that many children are gaining meaningless access to school since they are unable to transition to the level where upon completion they may qualify to higher levels or be employable by virtue of their Senior High School Certificate.

The Junior High School level is the terminal point for basic education in Ghana. This means that foundation requirement for every functional citizen in Ghana must sit for the BECE. There are however challenges to this policy. The first is that children who complete BECE at age 15 are not employable under the laws of Ghana, even though they fall within the youth category in Ghana; one must attain the age of 18 to be employable. Second, the BECE cannot earn one gainful employment because the requirement for employment is the Senior



High School (SHS) Certificate. Nevertheless the use of the stanine system<sup>12</sup> of examining students at the BECE means that only an average of 60% of students who sit for the examinations can actually pass in any given year. It is to forestall this challenge the SHS placement system for BECE candidates was amended in 2013/2014 such that candidates who do not perform well during the 2014 BECE will have the opportunity to re-sit for the first time, as from February 2015. This new policy is justified to the extent that it would motivate many more failed BECE candidates to strive to go beyond basic school (MoE, 2014).

## 2.3. Health Sector

### 2.3.1. Health Sector Budget by Sources of Revenue and Spending Type

The budget allocation to the health sector from 2011 to 2014 has been increasing. For instance, between 2011 and 2012, the allocation to the Ministry of Health increased by 13%. In the case of 2012 to 2013, the allocation to the Ministry of Health doubled mostly for wages and salaries; and goods and services (See Table 8).

**Table 7: Budget Allocation to the Health Sector by Source of Revenue (GHC) (2012-2014)**

Expenditure Type	Year	GOG	IGF	DONOR	SIP	ABFA	Total	ABFA (%total)
Wages & Salaries	2012	400,595,755.00	-	-	-	-	400,595,755.00	0%
	2013	469,340,000.00	-	-	-	-	469,340,000.00	0%
	2014	1,122,792,775.83	-	-	-	-	1,122,792,775.83	0%

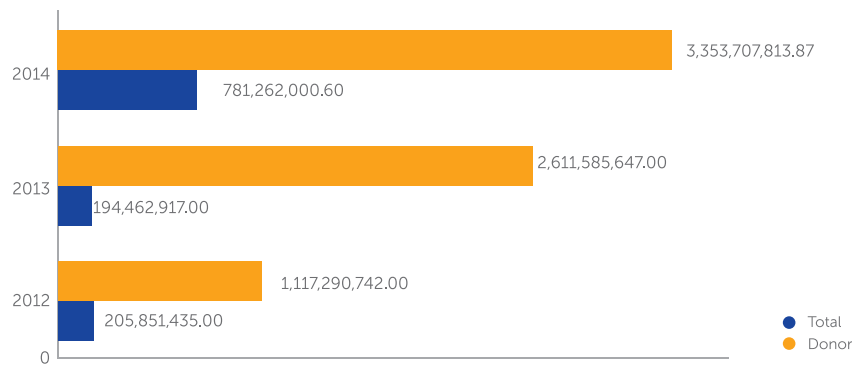
<sup>12</sup>The *stanine* system of grading BECE uses the raw test scores and the overall distribution of the scores. The scores are assigned values from 1 (the highest) to 9 (the poorest performers). This means that the proportion of students receiving a particular grade is the same every year. It is therefore not possible to compare grades across years but results can be analysed distributionally-comparing how certain group of students perform relative to their peers (MoE, ESPR, 2013).

Expenditure Type	Year	GOG	IGF	DONOR	SIP	ABFA	Total	ABFA (%total)
Goods & Services	2012	13,614,375.00	396,111,890.00	73,358,091.00	-	-	483,084,356.00	0%
	2013	9,648,426.00	1,620,232,256.00	38,892,583.00	46,840,000.00	-	1,715,613,265.00	0%
	2014	70,586,639.59	1,204,377,564.50	156,252,400.12	-	-	1,431,216,604.21	0%
Capital Expenditure	2012	29,230,147.00	71,887,140.00	132,493,344.00	-	-	233,610,631.00	0%
	2013	29,991,500.00	211,170,548.00	155,570,334.00	-	29,900,000.00	426,632,382.00	7%
	2014	15,443,597.85	159,245,235.50	625,009,600.48	-	-	799,698,433.83	0%

**Source:** Government of Ghana – Budget and Policy Statements (2011, 2012, 2013, 2014)

*The most striking observation on the health budget is that Ghana’s health sector significantly depends on donor funding for capital expenditure. Donor funding as a proportion of the total capital budget for the periods 2012, 2013 and 2014 were 57%, 36% and 78% respectively (See Table 8). We also present in Figure 5, the share of donor funding in total health sector budget. Sustainable financing of the health sector is therefore susceptible to the effects of volatility in donor funding, which exposes the health sector to serious financing risks.*

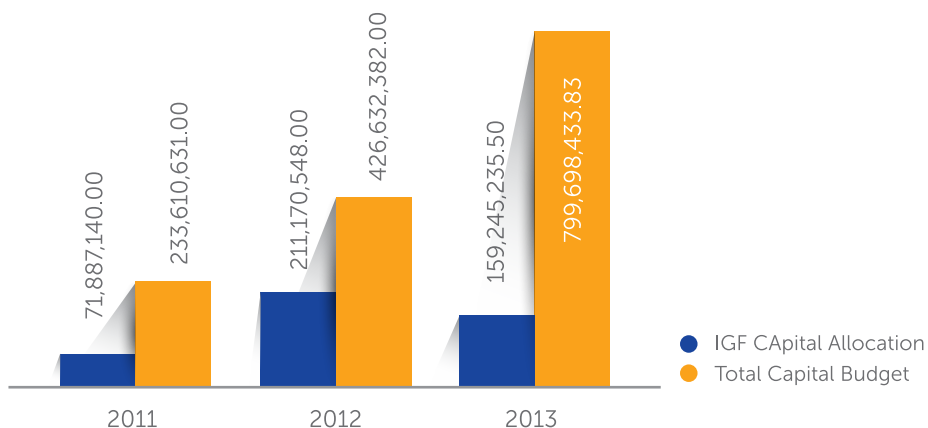
**Figure 5: Donor Support to Ministry of Health relative to total budget allocation (GHC)**



Another important observation is that the Ministry of Health relies on internally generated funds (IGF) mostly to finance its capital spending activities. For instance, in 2013, 49% of the total capital budget for the Ministry came from IGF (See Figure 6 for data). Thus, IGF plays an important role in funding activities of the Ministry of Health.

**Source:** Budget and Policy Statements (2011, 2012, 2013)

**Figure 6: Total Budget allocation and IGF of Ministry of Health (GHC)**



**Source:** Budget and Policy Statements (2011, 2012, 2013)

The health sector over the period did not receive much attention in the allocation of ABFA. The ABFA was allocated to the sector in 2013, about GH¢29,900,000.00, constituting 7% of the capital budget for the year. However, the Government's Reconciliation Report for the 2014 fiscal years shows that there was no expenditure made in the health sector from ABFA in 2013. This does not only undermine budget credibility but also reflects divergence between allocations and disbursements, a regular feature of the budgeting process in Ghana.

### **2.3.2. Major Development Achievements in the Health Sector**

Apart from administration, goods and service, Government spending in the health sector has focused on two major programmes – the CHPS Compounds and the NHIS. The following is a review of spending and the level of achievements in these programmes are:

#### **a. CHPS Compound**

In 2010 the number of functional Community Health-Based Planning Services (CHPS) zones was increased from 868 to 911. A total amount of GH¢5.95 million went to the Malaria Clinical Trials Project, construction of 50 Community Health and Planning Services (CHPS) compounds nationwide and the National Ambulance Service.

The Ministry established 276 new functional Community

based Health Planning and Services (CHPS) Zones. About 80 new CHPS Zones were made functional, increasing the total number of CHPS Zones to 225 in 2011. The population covered by CHPS in the Volta Region increased from 31% to 37% by end of the year 2011. Ten new CHPS compounds were constructed across the Volta Region bringing to a total of 114 completed compounds (2011 Annual Report, Volta Regional Health Directorate).

The total population covered by CHPS increased from 16.4% in 2009 to 21.78% in 2011 (GHS 2011 Annual Report). In 2012, 9 out of 16 CHPS compound were also completed in the Central Region, according to the 2013 Budget Statement. In 2013, 19 CHPS compounds were constructed while works on 25 new CHPS compounds commenced.

#### **b. National Health Insurance Scheme**

In 2010, National Health Insurance Levy (NHIL) for the period (1st to 3rd quarter) amounted to GH¢265.5 million. Active membership based on the new methodology is 8,163,714. Revenue in 2010 was GH¢460.96 while recurrent expenditure was GH¢531.33 based on the 2011 NHIA Annual Report.

To ensure the sustainability of the NHIS and adequate coverage, the Ministry of Health in 2011 collaborated with the Ministry of Employment and Social Welfare

(MESW) and identified the very poor in society for registration under the National Health Insurance Scheme.

Major achievements in the area of claims management were made and this included auditing of 28,925,293 claims and the recovering of GH¢471,215 and GH¢755,582 from services and medicines respectively. Revenue in 2011 was GH¢617.67 while recurrent expenditure was GH¢764.07 based on the 2011 NHIA Annual Report.

Based on the 2012 NHIA Annual Report, total active membership was 8,885,757. The Authority earned a total revenue of GH¢773.83 million and incurred total expenditure of GH¢788.32 million resulting in net operating deficit of ₵14.49 million. Claims cost for the period was GH¢616.47 million, representing 78.2% of the total expenditure. National Health Insurance Levy (NHIL) due from MOFEP at the end of 31 December 2012 was GH¢335.41 million.

Also, by mid-year of 2013 the coverage had reached about 73,000 households in all 10 Regions of the country.

## 2.4. Agriculture Sector

### 2.4.1. Agriculture Sector Budget by Sources of Revenue and Spending Type

Agriculture has been touted as the backbone of the Ghanaian economy and is one of the priority areas where petroleum revenues are expended. However, donors remain the major financier of the sector. For instance, in 2011, 53.6% of the total budget allocation to food and agriculture came from donors. This reduced to 46.7% in 2013, which can be attributed to increased ABFA allocations. There is also a reduction of IGF from 2011 to 2013. This reduction is disturbing since it is assumed that the ABFA is replacing the SIF component in the budget and not as an additional funding source. Again, the SIF contribution to the total agriculture budget in 2011 was 8%.

The food and agriculture subsector budget received the greatest attention in pro-poor distribution of petroleum revenues. In Table 9, allocations to food and agriculture from ABFA are presented. The sub-sector was allocated revenues from ABFA in each of the last three years; GH¢42,500,000.00 in 2012, GH¢20,000,000.00 in 2013 and GH¢52,180,591.00 in 2014. It is important to state that the Fisheries subsector was also allocated GH¢84,240,168 of ABFA in 2014. However, the bulk of this allocation was not disbursed because it was mainly to be used as counterpart funding for the China Development

Bank related projects<sup>13</sup>, which the Government decided cap. A total of GHC79, 240,168 from the fisheries budget was to be used as counterpart funds for the Coastal Fishing Harbours and Landing Sites Redevelopment Project.

**Table 8: Budget allocation to the Agriculture Sector by Source of Revenue (GHC) (2012-2014)**

Expenditure Type	Year	GOG	IGF	DONOR	SIP	ABFA	Total	ABFA (%total)
Wages & Salaries	2012	66,756,998.00	-	-	-	-	66,756,998.00	0%
	2013	80,338,583.00	-	-	-	-	80,338,583.00	0%
	2014	35,000,000.00	-	-	-	-	35,000,000.00	0%
Goods & Services	2012	5,912,412.00	3,455,930.00	47,835,329.00	-	10,500,000.00	67,703,671.00	16%
	2013	2,565,997.00	1,511,960.00	27,296,507.00	-	-	31,374,464.00	0%
	2014	10,935,151.84	1,614,142.00	35,753,428.02	-	-	48,302,721.86	0%
Capital Expenditure	2012	17,950,000.00	558,229.00	66,770,848.00	-	42,500,000.00	127,779,077.00	33%
	2013	50,828,750.00	751,896.00	109,186,029.00	-	20,000,000.00	180,766,675.00	11%
	2014	27,833,184.28	561,778.00	143,013,712.09	-	52,180,591.00	223,589,265.36	23%

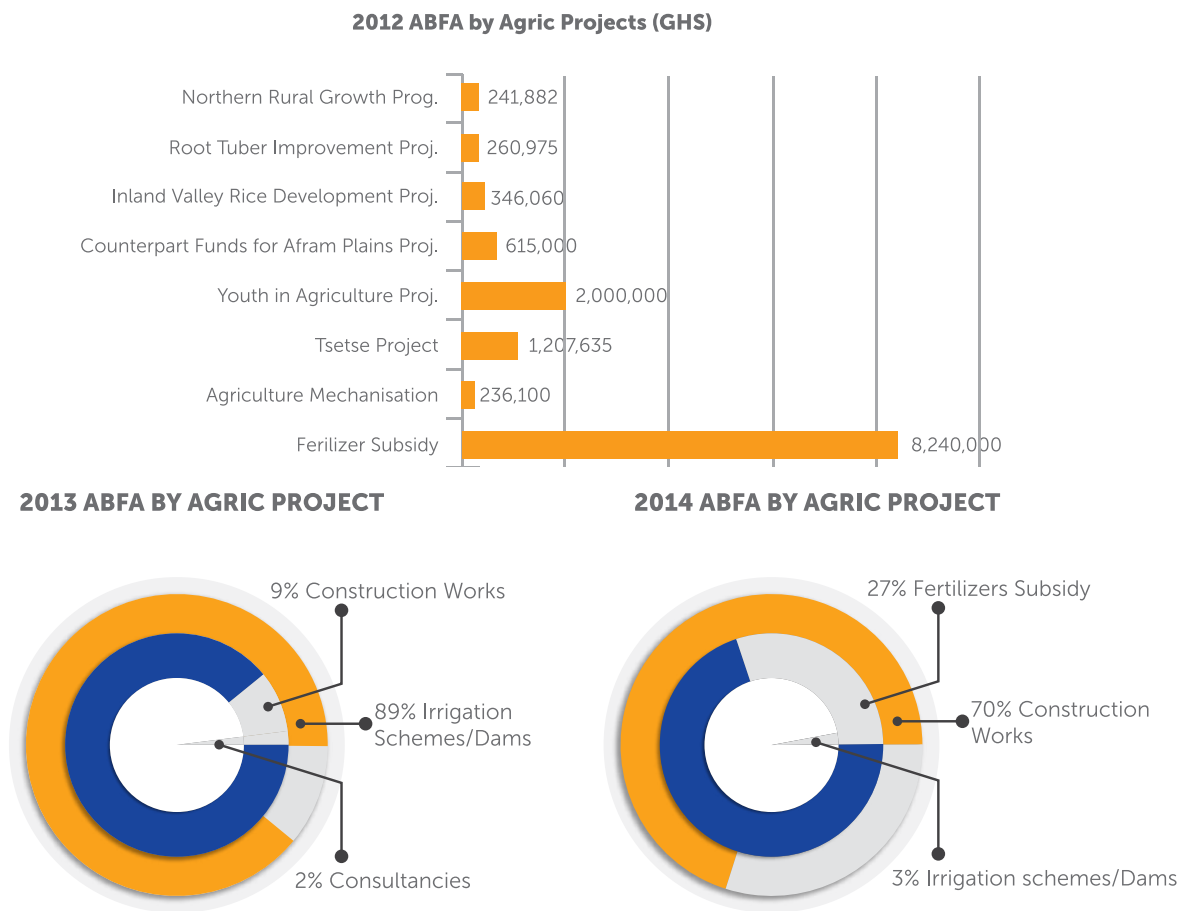
**Source:** Government of Ghana – Budget and Policy Statements (2011, 2012, 2013, 2014)

<sup>13</sup> The Government of Ghana contracted a loan of US\$3 billion from the China Development Bank. However, the Government decided to cap the loan at US\$1.5 billion due to new conditions demanded by the Bank for disbursement of the facility.

Agriculture sector share of ABFA was invested in a number of projects, which had significant implications for smallholder farmers. Thus, the choice of investment for the ABFA captured agriculture's role in redistribution

of income, reducing income and social inequalities and reducing poverty. The following Figure 7 shows the allocation of agriculture sector share of ABFA for the periods 2012, 2013 and 2014.

**Figure 7: Expenditure from the Annual Budget Funding Amount on Agriculture (GHC)**



**Source:** Reconciliation Report on the Ghana Petroleum Holding Fund, 2014.

Regions, where there is no all-year round farming due to climatic conditions.

## 2.4.2. Policy Interventions

The Ministry of Food and Agriculture (2012) outlined policy goals for the period 2013 to 2015. These goals were to:

- Improve agricultural productivity
- Increase agricultural competitiveness and enhance integration into domestic and international market
- Reduce production and distribution risks/bottlenecks in agriculture and industry
- Promote selected crop development for food security, export and industry
- Promote livestock and poultry development for food security and income
- Promote fisheries development for food security and income
- Improve institutional coordination for agriculture development
- Promote the application of science, technology and innovation in all sectors of the economy

A review of the budget statements from 2010 to 2013 indicates that the policy intentions that were declared reflected the eight policy goals in scope. In the 2010 budget for instance, commitment to food availability, access to food, response to crises/emergency situations and nutritional problems were indicated. Attention was

devoted to improving productivity in selected food security commodities, poultry, small ruminants and fisheries of between 25% and 50%, and the adoption of improved technologies by smallholder farmers through various subsidy and mechanization programmes. All of these goals were to be achieved through innovation and mechanization, within an environment of increased competitiveness, improved growth in incomes and reduced income variability, accompanied by sustainable management of land and the environment.

The 2011 budget emphasized the objective of modernizing agriculture for a strong economy to create job opportunities, through fertilizer subsidy programmes, mechanization and irrigation development. As part of the goal of increasing fish production, a fish processing plant was slated for Elmina, in addition to feasibility studies into the construction of two harbours and 12 landing sites. The goal of attracting the youth into agriculture through the “Youth in Agriculture Programme” by encouraging block farming, livestock, fisheries and agribusiness development to increase production of crops, livestock and fish as well as generate employment opportunities for the youth was also reiterated. Other programmes relating to controlling pests and diseases, and encouraging farmers, including road rehabilitation, scholarship and pension schemes were included.

Policy goals that were similar to those in the 2011 budget



were also stated in the 2012 budget. In the budget, the goal was for the Ministry of Food and Agriculture to continue with its mandate to implement programmes and projects in the Medium Term Agricultural Sector Investment Plan (METASIP). The plan aimed at leading the growth and structural transformation of the economy to maximize the benefits of accelerated growth, through fertilizer subsidies, mechanization and irrigation projects. In addition, the plan focused on encouraging the youth to enter into agriculture and related businesses. It also addressed the goal of improving women centered activities like food processing and creating awareness on health benefits of consuming indigenous local dishes, fresh fruits and vegetable and in safe handling of agricultural commodities. A fisheries college was to be established at Anomabu in the Central Region, to offer academic and vocational programmes in fishery biology, fishery technology, fishery-related management studies and aquaculture, and also offer in-service training to current and would be fish farmers, fish processors and fishers.

The establishment of the fish processing plant in Elmina, which was part of the 2011 budget was repeated in the 2012 budget. This plant was intended to provide facilities for processing, packaging and marketing of fish and fishery products. The 2012 budget also included the construction of two harbours and 12 landing sites at various sites of the coastal belt of the country to boost

fish production. This was a follow-up of the feasibility studies that were indicated in the 2011 budget. Poultry development, disease and infestation prevention programmes were also emphasized in the 2012 budget. Other activities, such as price incentives and a pension scheme, that were aimed at boosting cocoa production were reiterated, just as were declared in the 2010 and 2011 budgets. The budget also included government intention to continue to boost cocoa consumption through promotional programmes, including the sensitization of the citizenry on the health and nutritional benefits of cocoa. Other major events such as the COPAL Cocoa Day, and Chocolate Day would be used to promote consumption of cocoa product CRIG would be encouraged to continue research into the utilization of by-products from cocoa shea-nuts and cashew.

As reflected in the 2013 budget statement, the Ministry of Food and Agriculture was tasked to continue with its mandate to implement programmes and projects in the Medium Term Agricultural Sector Investment Plan (METASIP). These programmes included construction works for the Accra Plains Irrigation Project covering an area of 11,000ha. Work was also to commence on the Mprumen dam and the three dams in Koori, Zuedem and Tankasa in the Builsa District of the Upper East Region. Agricultural mechanization programmes through tractor imports and distribution, fertilizer and seed subsidies, livestock development, and youth in agriculture

programmes were all re-emphasized. The budget included broad policy measures to support the cocoa sub-sector. These measures were to ensure efficiency through streamlining of activities, interventions and programmes and contribute to the growth of the cocoa sector. The measures focused on increasing the producer price, bonus schemes, seed improvements, road improvement, scholarships and a housing scheme for cocoa farmers. In this budget, the issue of child labour was captured.

With respect to fisheries and aquaculture development, focus was placed on implementing existing laws and regulations in the fisheries industry and promoting aquaculture development in a decentralized environment. As part of this focus, the government declared its intention to implement the West Africa Regional Fisheries Programme, a roadmap for revitalizing and injecting the needed investments into the fisheries sector over a five year period. In the first year, investments were to be made into the building of governance structures and processes such as the establishment of vessel registry, conducting research to establish sustainable levels of stocks and piloting community fisheries management units. Farmers were to be trained to increase fish pond productivity from 1.5 metric tons/ha to 2.5 metric tons/ha and also increase output from the current 20,000mt to 40,000mt within the year. The Youth in Aquaculture Project was to train 3,200 from Eastern, Ashanti, Western

and Volta Regions to make a living through aquaculture. In order to equip the actors in the fishing industry with skills in sustainable fishing practices, the construction of the administration block, hostels, laboratories and lecture halls for the Fisheries College at Anomabo was to be continued, while the construction of the turnkey fish processing plant at Elmina was to be completed.

### **2.4.3. Major Development Achievements in the Agriculture Sector**

The government spending in the agriculture sector over the years gave much attention to the fertilizer subsidy programme, the Youth in Agriculture Programme and the Agriculture Mechanization Centers. The main achievements under the programmes are presented as follows.

#### **a. Fertilizer Subsidy Programme**

In 2010, the Ministry of Trade and Industry with funding from the Export Development and Investment Fund and support from the fertilizer subsidy program of the Ministry of Food and Agriculture started the Cotton Support Program, and assisted 3000 farmers in the three Northern Regions to cultivate cotton for export. Also, 60,000 metric tons of fertilizer was subsidized at an average cost of GH¢16 per bag for distribution to farmers under the Fertilizer Subsidy Program. A total of GH¢8,240,000.00 was spent.

In 2011, the supply of 114,160 metric tonnes of chemical fertilizers to farmers through the Fertilizer Subsidy Programme at a total cost of GH¢54.9 million as against GH¢34 million spent in 2010. A total of GH¢66.4 million was used to fund the Fertilizer Subsidy Programme to support rural agriculture and the establishment of Agricultural Mechanization Services Centers undertaken in the first 9 months of the fiscal year 2011.

In 2012, about GH¢152.8 million of this actual sector expenditure, representing 93.22%, was spent on the Fertilizer Subsidy Programme and establishment of Agricultural Mechanization Service Centres, among others. Under the Fertilizer and Seed Subsidy Programme 300,000 farmers benefitted from 70,000mt of fertilizer and 20,000kg of improved seeds of maize, rice and soybean.

As at the end of September 2013, the Ministry had distributed 142,000mt of fertilizer. Total budgeted expenditure for the Agriculture Sector was GH¢184.0 million. By the end of September 2013, GH¢92.2 million was spent. About GH¢84.1 million of this expenditure, representing 91.23%, was spent on the Fertilizer Subsidy Programme and the establishment of Agricultural Mechanization Service Centres, among others to boost agricultural production. Also, 20,000 households in the Northern Sector Ecological Zone received subsidized fertilizer, seed and agronomic support.

## **b. Youth in Agriculture**

In 2010, under the Block Farm Programme, about 47,000 hectares of land were cultivated with maize, rice, sorghum, soybean and vegetables. This programme provided financial opportunities to 80,000 beneficiaries. In 2012, GH¢2,000,000 was spent leading to the cultivation of 45,000 hectares of land was cultivated out of which 210,000mt of grains was produced.

In 2013, the Department of Cooperatives reviewed the Youth in Agriculture Module under GYEEDA and registered 1,757 Youth Cooperatives in 10 Regions. A total of 34,659 youth were engaged in productive co-operative ventures.

## **c. Agriculture Mechanization**

In line with Government's commitment to increase farmers access to agricultural mechanization services, 84 service centres were operationalized by September, 2010 as against 69 in 2009. A total of GH¢236,100.00 was spent.

By the end of 2012, Agriculture Mechanization Service Centres (AMSEC) have been established in 62 Districts. On the average, each Centre was supported with 5 tractors with matching implements, maize sellers and water pumps. Under the Agricultural Machinery Subsidy Programme, 150 units of 50HP Cabrio compact tractors were imported in semi knock-down

forms and the first lot of 50 units of these tractors was distributed to smallholder farmers.

In 2013, the Ministry procured 100 Cabrio agricultural tractors (50hp) and distributed them on hire purchase to individual vegetable farmers for land preparation. As part of the package, 80 tractor operators in Greater Accra were trained on effective tillage practices and proper maintenance of the tractors.

In addition, 10 mechanical harvesters were acquired and distributed to selected Agricultural Mechanization Services Enterprise Centers (AMSECs) while, a prototype dryer was fabricated to enhance production of high quality cassava flour.

The Ministry took delivery of combine harvesters for both rice and maize to reduce the drudgery associated with harvesting whilst 400 tractors and combine harvester operators were trained in proper handling, operation and maintenance of machinery/equipment.

To reduce the high post-harvest losses in tomato production, a tomato processing factory was commissioned and is functioning at Techiman in the BrongAhafo Region.

# SECTION 3

## THE FINANCING GAP IN PRO-POOR SECTORS AND THE ROLE OF EXTRACTIVE RESOURCE REVENUES

### 3.1. Computing the Financing Gap

The pro-poor sector of education, health and agriculture could accelerate economic transformation if Government adequately funds them. However, like many developing countries, these sectors are often under-funded limiting their capacity to positively impact on the living conditions of people. This section shows that the pro-poor sectors under consideration face significant financing gaps. But with petroleum revenues likely to increase as new oil production wells are brought on stream in June 2016, the case for using this new

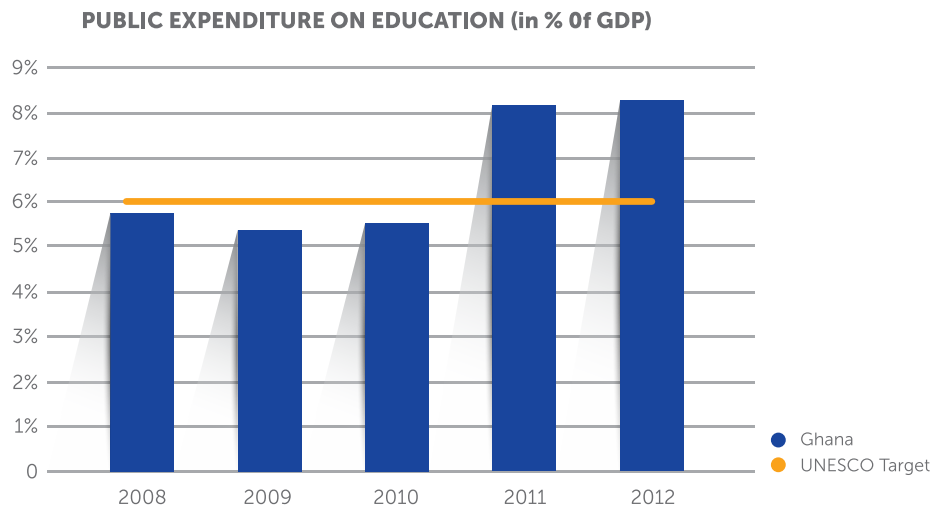
revenue to bridge the gap has become very fundamental for increasing the development potential of Ghana.

#### a. Education Financing Gap

The United Nations Education, Social and Cultural Organization (UNESCO) advocates for countries to spend at least, 6% of their GDP on education. Several countries have used this as their benchmark. For instance, South Africa, Africa's second largest economy spent 6% of its GDP on education in 2010, 6.1% in 2011, 6.6% in 2012 and 6.2% in 2013 according to the World Bank. Figure 8 shows Ghana's financing gap based on

public expenditure share of GDP on education.

**Figure 8: Public Expenditure on Education (in % of GDP)**



**Source:** World Development Indicators

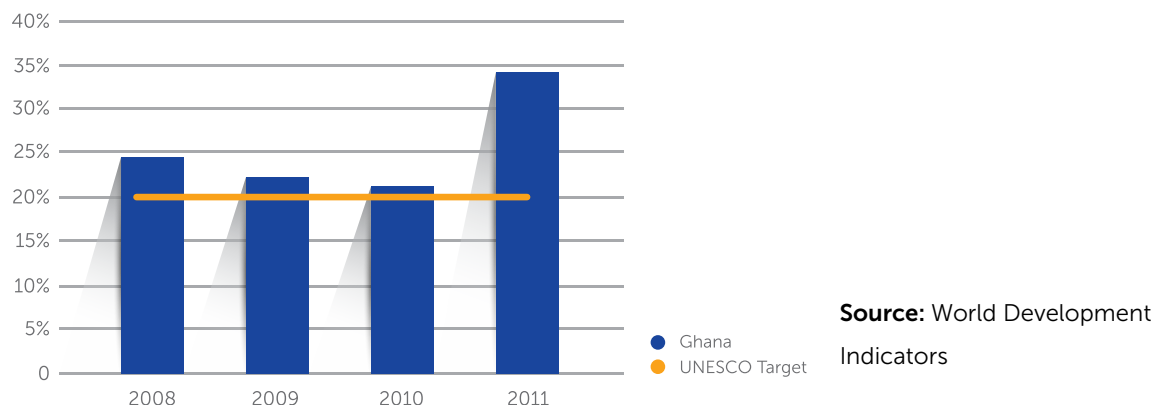
Another measure of education financing is the Muscat Agreement. The Agreement is a global goal and targets for the post-2015 education agenda, made at the Global Education For All Meeting in Muscat, Oman. This is the first important step in a process that will culminate at the World Education Forum at the United Nations General Assembly in New York in September 2015. The Agreement targets that by 2030, all countries allocate at least 4-6% of their Gross Domestic Product (GDP) or at

least 15-20% of their public expenditure to education, prioritizing groups most in need; and strengthen financial cooperation for education, prioritizing countries most in need.

On this benchmark, Ghana has again demonstrated its commitment to providing education for its people. The Government has been spending in excess of 20% of its total budget on education, significantly above the Muscat target (See Figure 9).

**Figure 9: Public Expenditure on Education in Total Public Expenditure (%)**

**PUBLIC EXPENDITURE ON EDUCATION IN TOTAL PUBLIC EXPENDITURE (%)**



The education sector is therefore well funded in Ghana on account of the global benchmarks for education financing. Technically, there is no financing gap for the education sector in Ghana. It is important however, to find sustainable financing of the education sector, an important requirement for the country's move towards full middle-income status. The education sector is still faced with key challenges. Although UNESCO has touted Ghana as one of the high performers in sub-Saharan Africa when it comes to government expenditure on education, there exists no clear-cut policy and secure source of financing education apart from the GETFund, which has been in arrears in recent times. With increasing demand for education, government must seek to enhance its tax efforts in order not to reverse its

financing commitment to the sector.

Also as already observed, the bulk of government budget is committed to salaries and wages, and goods and services. The capital budget does not receive much attention resulting in infrastructure deficit, and its attendant challenges of low enrolment in schools. Therefore, in spite of Ghana's impressive performance against global benchmarks, there exist considerable financing deficit for educational infrastructure.

### **b. Health Financing Gap**

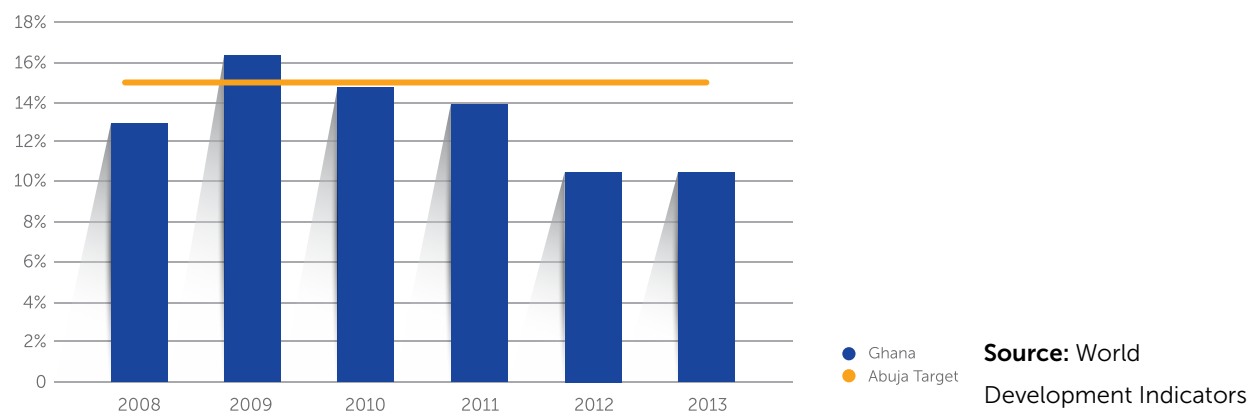
According to the World Health Organization, countries should dedicate a minimum of 5% of their GDP to the Health Sector to encourage growth and wellbeing.

However, various countries in Sub-Saharan Africa have responded to this benchmark differently. Between 2010 and 2014, Ghana spent an average of 5.4% of its GDP annually on Health. However, South Africa spent 8.9%

of its GDP on health whereas Nigeria spent 3.9%. In 2011 and 2013, Ghana could not meet the WHO target. However, the average expenditure is 5.4% from 2010 to 2014 (See Figure 10).

**Figure 10: Public Expenditure on Health (in % of Total Public Expenditure)**

**PUBLIC EXPENDITURE ON HEALTH (IN OF TOTAL PUBLIC EXPENDITURE)**



This is far less than what is stated in the Abuja Declaration, 2001 which encourages member states of the AU to commit not less than 15% of budget to the health care sector. Ghana spent 10.55% of the budget on health in 2013. Though this is relatively high, it is still less than the target of the Abuja Declaration by 4.45%.

**c. Agriculture Financing Gap**

The New Partnership for Africa Development established the Comprehensive Africa Agriculture Development Programme (CAAPD) which aims to boost agriculture growth through public investment. The CAAPD sets a target of 6% annual growth of the agriculture sector. In order to make this achievable, the Maputo Declaration (2003), which Ghana is a signatory to, sets a target of



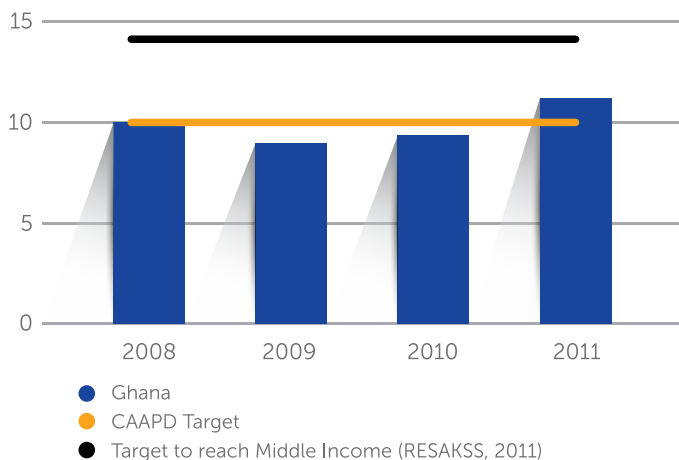
10% of the national budget to agriculture annually.

A public expenditure review conducted by Ghana's Ministry of Food and Agriculture (MoFA) with support from the World Bank found that the share of agricultural expenditure of total expenditure had risen from 6.5 percent in 2001 to above 10 percent in 2009, 2010, and 2011 (MoFA, 2013). However, according to RESAKSS

(2011)<sup>14</sup>, if Ghana will achieve the targeted 6% annual growth in agriculture, it has to commit 14% of the national budget to the sector. Technically, whilst Ghana is performing better than the Maputo target, there is a funding gap of about 2.7% of total government budget in 2011 if Ghana is evaluated against the target of 14% of public expenditure it requires to become full middle income country (See Figure 11).

**Figure 11: Public Agriculture Expenditure in Total Public Expenditure (%)**

**PUBLIC AGRICULTURE EXPENDITURE IN TOTAL PUBLIC EXPENDITURE (%)**



**Source:** : MOFA, RESAKSS (2011), Benin (2014) <sup>15</sup>

<sup>14</sup> Republic of Ghana, Ghana: Long-Term Funding for Agricultural Growth, Poverty Reduction and Food Security, undated, p3, [www.resakss.org](http://www.resakss.org)

<sup>15</sup> Benin, Samuel (2014) "Identifying Agricultural Expenditures within the Public Financial Accounts and Coding System in Ghana - Is the Ten Percent Government Agriculture Expenditure Overestimated?" IFPRI Discussion Paper 01365, August 2014.

## 3.2. Size of the Financing Gap

The education sector is receiving much attention in Government budget. However, the health and agriculture sectors face significant budget gaps, likely to adversely affect Ghana's transformation to a full middle-income country. The financing gap for health and agriculture sectors were computed as follows.

As already indicated above, the financing gap for the health sector is 4.45% of total public expenditure in 2013. This translates to the equivalent of GH¢932

million. This amount adjusted for the rates of inflation in 2014 and 2015 (projected) translates to financing gap of GH¢1,090.6 million and GH¢1,216 million respectively. The average financing gap for the sector is GH¢1,079.8 million.

For the agriculture sector, a financing gap of 2.7% of total public expenditure in 2011 amount to GH¢281 million. Adjusted for inflation, the annual financing gap for agriculture is stated in the Table 10 below. The average annual financing gap however is GH¢355 million.

**Table 9: Size of the Financing Gap in Health and Agriculture Sectors (GH¢)**

Year	Inflation	Financing Gap for Health	Financing Gap for Agriculture	Total 2011-2015	Total 2013-2015
2011*			281,132,100	281,132,100	
2012	8.80%		305,871,725	305,871,725	
2013**	12%	932,923,200	342,576,332	1,275,499,532	1,275,499,532
2014	16.90%	1,090,587,221	400,471,732	1,491,058,953	1,491,058,953
2015 Proj	11.50%	1,216,004,751	446,525,981	1,662,530,732	1,662,530,732
Total		3,239,515,172	1,776,577,869	5,016,093,041	4,429,089,217
Average		1,079,838,390.66	355,315,573.89		1,476,363,072.21

\*base year for computing agriculture sector financing gap is 2011.

\*\*base year for computing health financing gap is 2013.

**Source:** Government of Ghana Budget Statements and computations by authors

10% of the national budget to agriculture annually.

A public expenditure review conducted by Ghana's Ministry of Food and Agriculture (MoFA) with support from the World Bank found that the share of agricultural expenditure of total expenditure had risen from 6.5 percent in 2001 to above 10 percent in 2009, 2010, and 2011 (MoFA, 2013). However, according to RESAKSS (2011)<sup>14</sup>, if Ghana will achieve the targeted 6% annual growth in agriculture, it has to commit 14% of the national budget to the sector. Technically, whilst Ghana is performing better than the Maputo target, there is a funding gap of about 2.7% of total government budget in 2011 if Ghana is evaluated against the target of 14% of public expenditure it requires to become full middle income country (See Figure 11).

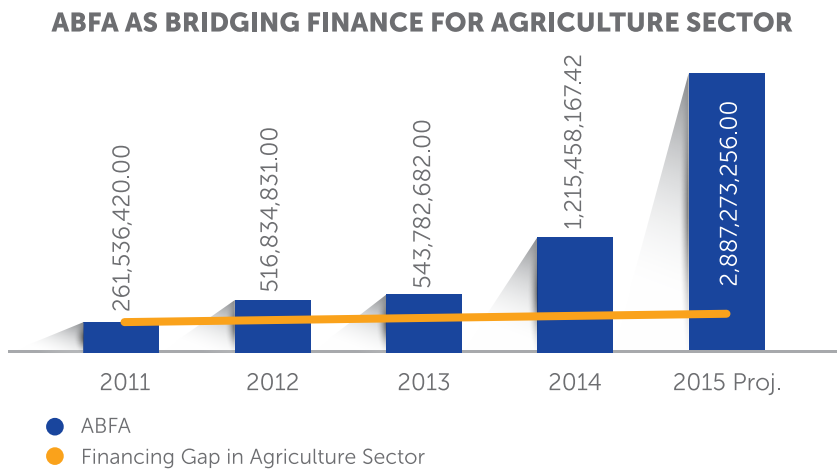
The additional revenues required meeting the financing requirement for health and agriculture is unlikely to come from tax revenues on account of Government consistent failure to meet its revenue targets. Revenues from the extractive sectors therefore have important bridging role. Already mineral revenues are committed

to budget support. With petroleum revenues providing relief to the budget but often spread thinly across many sectors, a careful targeting of the health and agriculture sectors for the use of petroleum revenues could prove decisive in charting to path to sustainable growth and poverty reduction.

### 3.3. Bridging the Financing Gap with Petroleum Revenues

Petroleum revenues offer enormous financing opportunity for bridging the financing gap in the pro-poor social sectors of the economy. Stated earlier, average annual financing gap for the health sector is GH¢1,079.8 million and GH¢355 million for the agriculture sector. These add up to GH¢1,435,153,964.55. With average ABFA of GH¢1,548,8 million over the period 2013 to 2015 (projected), petroleum revenues are more than adequate to bridge the financing gap if these revenues were allocated to the two pro-poor sectors of health and agriculture.

**Figure 12: ABFA as Bridging Finance for Agriculture (GH¢)**



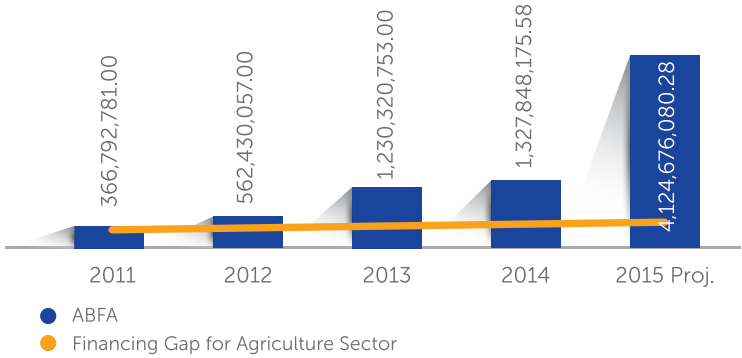
**Source:** Government of Ghana Budget Statement (2012-2015) and computations by authors

For the agriculture sector, although the annual financing gap has been increasing over the years, the ABFA could offset the gap in 2012 if 59% of ABFA was spent on agriculture (See Figure below). Similarly, the financing gaps in 2013 and 2014 could be bridged if Government spent 63% and 33% of ABFA on agriculture respectively. In 2014, full financing of the agriculture sector from petroleum revenues could have left with the Government about GH¢814 million to be spent on other sectors.

Assuming no savings of petroleum revenues in the Ghana Petroleum Funds, revenues available for spending increases, thereby reducing the proportion of petroleum revenues required to offset the financing gap in the agriculture sector (See Figure below). For instance, in 2013 and 2014, only 28% and 30% respectively would be required from petroleum revenues to bridge the annual financing gap in the agriculture sector.

**Figure 13: Benchmark Revenue as Bridging Finance for Agriculture (GHC)**

**BENCHMARK REVENUE AS BRIDGING FINANCE FOR AGRICULTURE (GHC)**

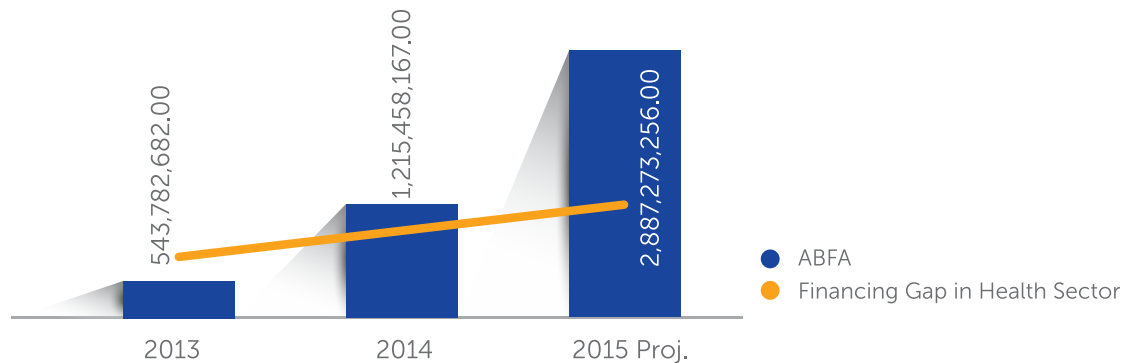


**Source:** Government of Ghana Budget Statement (2012-2015) and computations by authors

The health sector shows no difference in terms of the potential of petroleum revenues to bridge its financing gap. In spite of the huge financing gap in the health sector relative to agriculture, about 90% of ABFA was enough to bridge the total financing gap in 2014. (See Figure below) With oil production expected to increase as more oil and gas producing wells are brought on stream in 2016 and 2018, Government has sufficient financing relief to offset the financing needs of the health sector by committing a proportion of ABFA.

**Figure 14: ABFA as Bridging Finance in Health Sector (GHC)**

**ABFA AS BRIDGING FINANCE IN HEALTH SECTOR (GHC)**

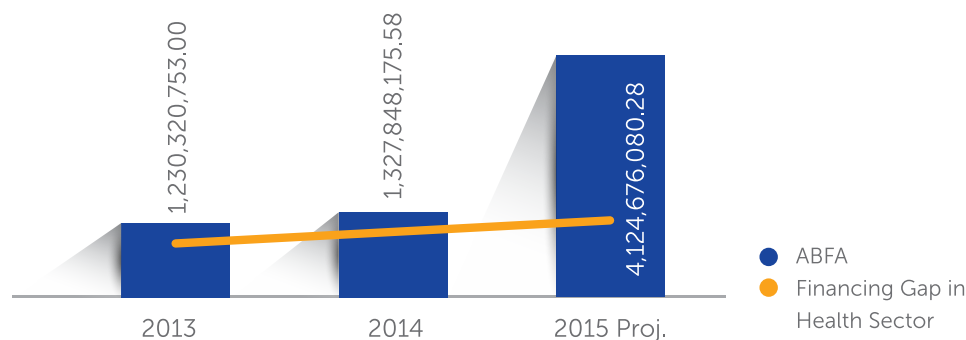


**Source:** Government of Ghana Budget Statement (2012-2015) and computations by authors

*Where there are no savings from petroleum revenues, the amount of revenues required as bridging finance for health sector financing gap in 2014 reduced from 90% to 82%. Thus, government has a choice between spending and saving.*

**Figure 15: Benchmark Revenue as Bridging Finance in Health Sector (GHC)**

### BENCHMARK REVENUE AS BRIDGING FINANCE IN HEALTH SECTOR (GHC)



**Source:** Government of Ghana Budget Statement (2012-2015) and computations by authors

The Petroleum Revenue Management Act 2011 (Act 815) however requires Government to save a proportion of petroleum revenues in the Ghana Petroleum Funds, hence it may not be possible to apply the entire benchmark revenue to financing the budget gap without amending the law.

Due to the legal limitations on the spending of petroleum revenues, a number of options are available for the government to strictly apply ABFA to bridging the financing gap in the pro-poor sectors of the Ghanaian economy. Two of these options are explored here.

First, Section 21(5) of the ACT 815 requires the Government to prioritize not more than four (4) areas for the use of ABFA. This implies that government could limit its priorities to one or two areas. Given the level of financing gap in the pro-poor sectors of agriculture and health, it may be appropriate to reduce the priorities to two sectors to ensure that they are fully funded to deliver quality services and development to the people.

Second, Government spending of ABFA over the period 2011 to 2014 shows that there has not been efficient allocation of the revenues. Revenues have been

distributed thinly over many sectors and projects leading to time over-runs and cost over-runs for most of the projects funded with petroleum revenues<sup>16</sup>. It is therefore important to apply the ABFA to fully fund sectors that are pro-poor and could make quick development impact in the country, rather the current practice in which the ABFA is distributed to non-essential projects across many sectors like the office of government machinery, the National Disaster Management Organization and non-social sectors such as the Venture Capital Fund and Exim Guaranty Funds which must be private sector driven.

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<sup>16</sup> ACEP (2013) How a good law may not stop money from going down the drain, Report, July 2013



# SECTION 4

## KEY FINDINGS AND RECOMMENDATIONS

### 4.1. Key Findings

The main findings from the study are summarized as follows.

#### 4.1.1. Findings on Tracking of Extractive Resource Revenues in Pro-poor sectors

i. There is no legal framework similar to the Petroleum Revenue Management Act that governs solid mineral revenues allocated to the budget. It is therefore not

possible to track mineral revenues to projects. Its impact on the social and economic development can therefore not easily be assessed.

ii. The significance of petroleum revenues in the education sector is derived from the fact that it represents a greater proportion of the capital budget particularly in 2014, about 37%. Thus, it appears that although ABFA was the least source of revenues for most of the period under consideration, its contribution to the capital budget makes it an

important source of revenues for financing social development.

- iii. The health sector over the period did not receive much attention in the allocation of ABFA. The ABFA was allocated to the sector in 2013, about GH¢29,900,000.00, constituting 7% of the capital budget for the year. However, the Government's Reconciliation Report for the 2014 fiscal year shows that there was no expenditure made in the health sector from ABFA in 2013. This does not only undermine budget credibility but also reflects divergence between allocations and disbursements, a regular feature of the budgeting process in Ghana.
- iv. The food and agriculture subsector budget received the greatest attention in pro-poor distribution of petroleum revenues. The sub-sector was allocated revenues from ABFA in each of the last three years; GH¢42,500,000.00 in 2012, GH¢20,000,000.00 in 2013 and GH¢52,180,591.00 in 2014. The agriculture sector share of ABFA was invested in a number of projects, which had significant implications for smallholder farmers. Thus, the choice of investment for the ABFA captured agriculture's role in redistribution of income, reducing income and social inequalities and reducing poverty.

#### **4.1.2. Findings on Extractive Resource Revenues as Financing Bridge for pro-poor sectors**

v. The study found that technically there is no financing gap for the education sector in Ghana since Ghana is performing better than targets set by international benchmarks for optimal public financing of education. However, the bulk of government budget in the education sector is committed to salaries and wages, and goods and services. The capital budget does not receive much attention resulting in infrastructure deficit, and its attendant challenges of low enrolment in schools. Therefore, in spite of Ghana's impressive performance against global benchmarks, there exist considerable financing deficit for educational infrastructure.

vi. The average annual financing gap for the health sector is GH¢1,079.8 million and GH¢355 million for the agriculture sector. These add up to GH¢1,435,153,964.55. With average annual ABFA of GH¢1,548,8 million over the period 2013 to 2015 (projected), petroleum revenues are more than adequate to bridge the financing gap if these revenues were allocated to the two pro-poor sectors of health and agriculture.

vii. For the agriculture sector, although the annual financing gap has been increasing over the years, the ABFA could offset the gap in 2012 if 59% of ABFA was

spent on agriculture. Similarly, the financing gaps in 2013 and 2014 could be bridged if Government spent 63% and 33% of ABFA on agriculture respectively. In 2014, full financing of the agriculture sector gap from petroleum revenues could leave with the Government about GH¢814 million to be spent on other sectors.

viii. In spite of the huge financing gap in the health sector relative to agriculture, about 90% of ABFA was enough to bridge the total financing gap in 2014. With oil production expected to increase as more oil and gas producing wells are brought on stream in 2016 and 2018, Government has sufficient financing relief to offset the financing needs of the health sector by committing a considerable proportion of ABFA.

## 4.2. Policy Recommendations

The following broad recommendations show that resource revenues can become very essential for financing national development priorities. They also demonstrate that Government could improve on its management, allocation and utilization of resource revenues by adopting new policies, legal frameworks and best practices.

i. To ensure the tracking of mineral revenues and enhance transparency and accountability in public spending from Ghana's mineral wealth, Government must consider developing a legal framework similar

to the Petroleum Revenue Management Act 815, for accounting for mineral revenue and reporting on its utilization through the budget process. The Extractive Industries Transparency Initiative (EITI) reporting so far has focused on receipts of mineral revenues but does not cover expenditure from mineral revenues.

ii. The use of petroleum revenues for capital investment must be encouraged as it does not only fulfill the requirement of Section 21(4) of the Petroleum Revenue Management Act (Act 815) but also builds the capital base of the economy to accelerate medium to long-term economic growth. Spending of resource revenues therefore should be based on a comprehensive public investment plan, which must make a cost-benefit analysis a mandatory requirement for selecting projects funded with resource revenues. This will provide consistency in the use of petroleum revenues for projects that add value to the economy on a sustainable basis. To this effect, Government must pass a Public Investment Management Law as a matter of urgency.

iii. Section 21(5) of the Petroleum Revenue Management Act 2011 (ACT 815) requires the Government to prioritize not more than four (4) areas for the use of ABFA. This implies that government could limit its priorities to one or two areas. Given the level of financing gap in the pro-poor sectors of agriculture and health, it may be appropriate to reduce the priorities to two sectors

to ensure that they are fully funded to deliver quality services and development to the people.

iv. To address the inefficiency in the utilization of petroleum revenues observed over the period 2011 to 2014 through thin distribution of ABFA over many sectors and projects, time over-runs and cost over-runs, Government must re-prioritize the use of petroleum revenues from non-essential spending like the office of government machinery, the National Disaster Management Organization; and non-social sectors such as the Venture Capital Fund and Exim Guaranty Funds which must be private sector driven, and commit the resources to social development sectors that are pro-poor and could make quick development impact in the country.

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