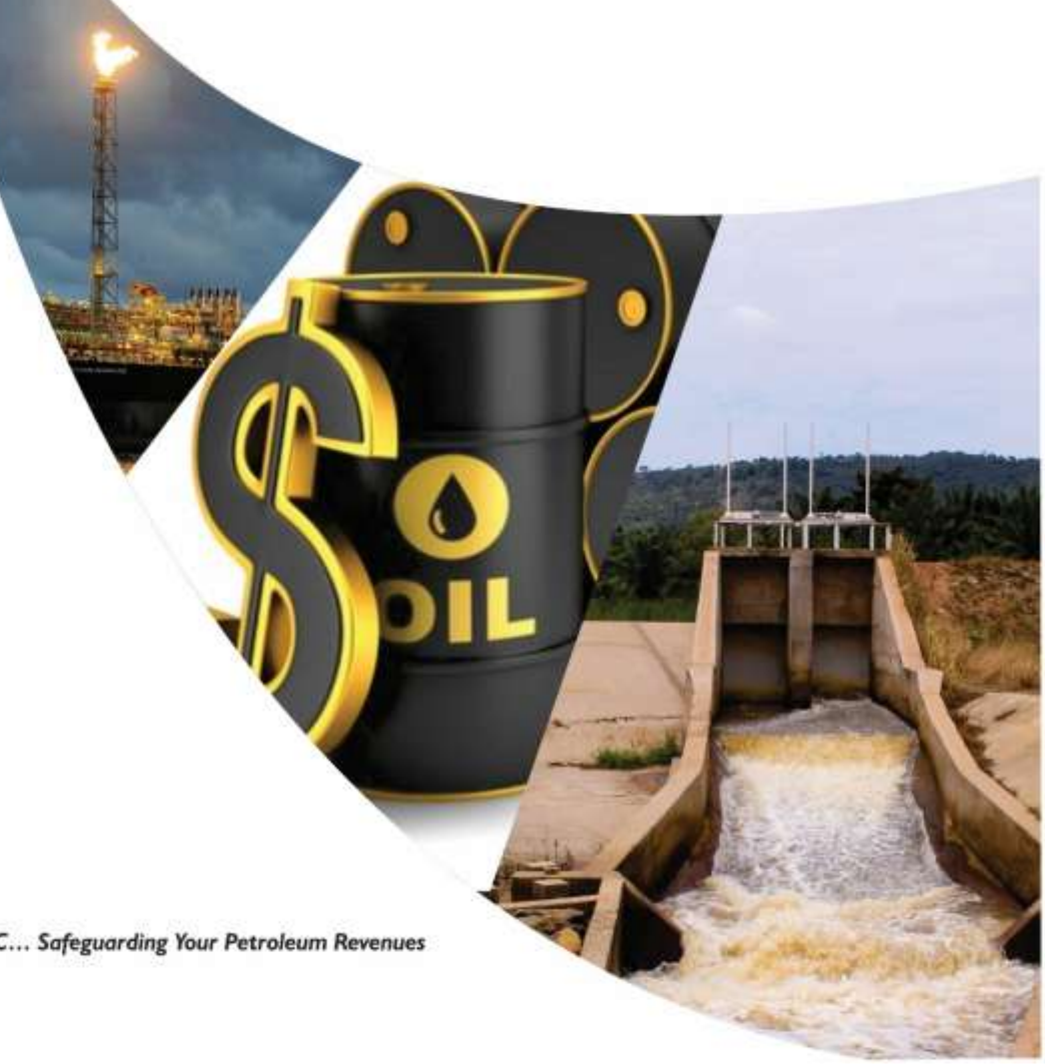
PUBLIC INTEREST AND ACCOUNTABILITY COMMITTEE

Assessment of the Management and Use of Ghana's Petroleum Revenues (2011-2020)



PIAC… Safeguarding Your Petroleum Revenues

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Assessment of the Management and Use of Ghana's Petroleum Revenues (2011-2020)

March 2022

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Foreword

The Public Interest and Accountability Committee (PIAC) is established under Section 51 of the Petroleum Revenue Management Act (PRMA), 2011 (Act 815) as amended, with three main objects, which are to:

- monitor and evaluate compliance with the Act by government and relevant institutions in the management and use of petroleum revenues and investments;
- provide space and platform for the public to debate on whether spending prospects and management and use of revenues conform to development priorities as provided under Section 21(3); and,
- provide independent assessment on the management and use of petroleum revenues to assist Parliament and the Executive in the oversight and the performance of related functions.

Since its establishment in September 2011, PIAC has effectively exercised its oversight responsibility of monitoring and evaluating the management of Ghana's petroleum revenues by the government and stakeholder institutions.

The Committee recognises the contributions of its past members to the successes chalked, despite the challenges faced in its formative years.

The year 2021 marked the 10th anniversary since the establishment of the Public Interest and Accountability Committee (PIAC). As part of the Anniversary activities, the Committee deemed it necessary to review the performance of Ghana's upstream petroleum industry since December 2010 in accordance with its mandate. The Committee therefore commissioned an assessment of the management and use of petroleum revenues for the period 2011 to 2020.

This report presents the outcome of the Study, and covers four thematic areas, namely:

- Petroleum production, sales and revenue collection;
- Revenue allocation, distribution, and utilisation;
- Management of the Ghana Petroleum Funds (GPFs); and
- Institutional assessment of petroleum revenue management

It is the expectation of the Committee that this Report will be a useful tool in influencing the policy direction of government, which will ultimately inure to the benefit of all Ghanaians.

PIAC Chair

March 2022

Contents

List of Acronyms and Abbreviations

ABFA	Annual Budget Funding Amount
BCF	Billion Cubic Feet
BMZ	German Federal Ministry for Economic Cooperation and Development
BOG	Bank of Ghana
BOPD	Barrels of Oil Per Day
CAPEX	Capital Expenditure
CAPI	Carried and Participating Interest
CIT	Corporate Income Tax
COLA	Crude Oil Lifting Agreement
GAAS	Front End Engineering and Design
GHEITI	Ghana Extractive Industries Transparency Initiative
GHF	Ghana Heritage Fund
GIIF	Ghana Infrastructure Investment Fund
GIZ	Deutsche Gesellschaft für International Zusammenarbeit GmbH/German Agency for International Cooperation
GNGC	Ghana National Gas Company
GNPC	Ghana National Petroleum Corporation
GOG	Government of Ghana
GOGIG	Ghana Oil and Gas for Inclusive Growth
GovID	Governance for Inclusive Development Programme
GPFs	Ghana Petroleum Funds
GRA	Ghana Revenue Authority
GSA	Gas Sales Agreement
GSF	Ghana Stabilisation Fund
IOCs	International Oil Companies
ITLOS	International Tribunal for Law of the Sea
MLGRD	Ministry of Local Government and Rural Development
MMBOE	Million Barrel of Oil Equivalent
MMBBL	Million Barrels

MMSCF	Million Standard Cubic Feet
MoE	Ministry of Education
MoF	Ministry of Finance
MoFA	Ministry of Food and Agriculture
NOC	National Oil Company
OCTP	Offshore Cape Three Points
OPEX	Operating Expenditure
PC	Petroleum Commission
PFM	Public Financial Management
PHF	Petroleum Holding Fund
PIAC	Public Interest and Accountability
POD	Plan of Development
PRMA	Petroleum Revenue Management Act
SECO	Swiss State Secretariat for Economic Affairs
SGN	Sankofa-Gye Nyame
STEP	Short-Term Expert Pool
TC	Technical Cooperation
TCF	Trillion Cubic Feet
ToR	Terms of Reference
WCGIP	Western Corridor Gas Infrastructure Project

List of Figures

List of Tables

Executive Summary

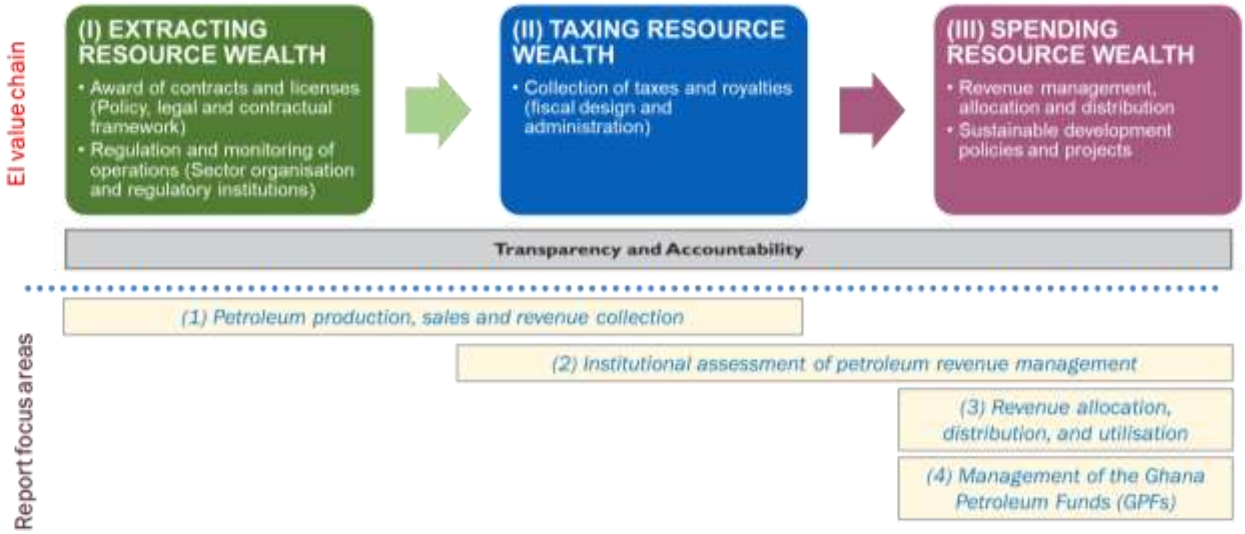
Objective of the Study

This report assesses Ghana's management and use of petroleum revenue over the past ten years (2011-2020) in line with the requirements of Ghana's *Petroleum Revenue Management Act (PRMA)*, 2011 (Act 815, as amended by Act 893) and *Petroleum Revenue Management Regulations*, 2019 (L.I. 2381). It encompasses an assessment of the performance of the institutions assigned duties by the PRMA for the past decade and a thorough evaluation of the socio-economic impact of the management and use of petroleum revenue on the development of Ghana.

The report focusses on **four areas**, which are aligned with the extractives industry value chain:

1. **Petroleum production, sales and revenue collection:** What are the petroleum production and sales processes, and how have they optimised value creation for the country?
2. **Revenue allocation, distribution, and utilisation:** What agencies are involved in petroleum revenue allocation? How does the allocation system, especially ABFA, optimise value creation for the country? Are petroleum revenue allocations (procedural requirements) compliant with the PRMA and regulations? To what extent is there public engagement (the involvement of civil society and other non-government stakeholders in the process)? Are there sufficient disclosures, including explaining the rationale for using discretionary powers?
3. **Management of the Ghana Petroleum Funds (GPFs):** What are the philosophical underpinnings of the GPFs? How have flows into the GPFs changed over the years? What political economy factors have driven the management and use of the GPFs over the past decade?
4. **Institutional assessment of petroleum revenue management (including broader sectoral governance issues):** What is the responsibility of the various actors on petroleum revenue management in Ghana? How have these institutions performed in their roles? What are the other broader sectoral governance issues on petroleum revenue management in Ghana?

ES 1 — Alignment of report areas to the extractives industry value chain



Source: Authors' construct

We combined three research methods — qualitative, quantitative, and problem-driven political economy analysis (PDPEA) — to put together this report. First, data was gathered from key stakeholder institutions such as the Ministry of Finance (MoF), The Ghana National Petroleum Corporation (GNPC), Petroleum Commission, The Bank of Ghana (BoG), Investment Advisory Committee (IAC), Auditor General, Public Interest and Accountability Committee (PIAC), and The Ghana Revenue Authority (GRA), among others. This was supplemented with semi-structured interviews with persons and organisations engaged in the national policy debate on petroleum taxation and revenue management. This exercise also helped identify possible misalignment in stakeholder interests and motivations and highlighted some social and institutional aspects of petroleum revenue management that needs to be addressed. Also, the data was reviewed and analysed, and where inconsistency or discrepancies were discovered, follow-up interviews were conducted with designated officials at the relevant institution(s). Finally, the report's final draft was sent to stakeholder institutions for validation before publication.

Key Findings

Below are the report's key findings, organised around the **four areas.**

Petroleum production, sales and revenue collection

1. Ghana has, as of 2021, **enacted the necessary legal framework to govern its oil industry.** However, in respect of decommissioning, Regulations are yet to be passed. Ghana's Model Petroleum Agreement (2000) has been modified over time and culminated in the modified/updated Model Petroleum Agreement (2019). Unlike the earlier ones, the latter petroleum agreements do not contain freezing stabilisation clauses. This positive development allows the state and investors to renegotiate contract terms as economic conditions necessitate. **There is,**

however, the need to ensure that a material change has been well-established before changes are made to a petroleum agreement.

2. The country has made **commendable efforts to try and increase the revenue that accrues to the State** by making changes in legislation to control petroleum costs claimed by the IOCs, statutorily increasing its Carried Interest stake, and contractually preventing the petroleum agreement from being a fiscal enclave in respect of taxes and imposts that the State can levy. However, there is the **need for a laser-like approach to cost monitoring as this, along with transfer pricing**, is one of the significant pathways the State loses money in the industry.
3. **Ghana has signed eighteen (18) petroleum agreements/contracts (PAs) since 2004 covering its offshore basins**, namely the Accra-Keta cretaceous basin (Eastern), Saltpond (Central) palaeozoic basin and Tano-Cape Three Points cretaceous basin (Western). Of these, three (3) producing fields, namely the Jubilee, Tweneboa-Enyenra-Ntomme (TEN) and Sankofa-Gye Nyame (SGN), account for petroleum revenues as of end-2020. The data shows that **total production from Ghana's three fields peaked in 2020.** Production will **continuously decline if nothing is done through new in-fill developments on these existing fields or new fields coming on-stream**. Peaking is further compounded by **reservoir challenges leading to production losses on some field**s. At the same time, the above-surface issues include FPSO reliability challenges and delayed gas processing infrastructure forcing gas re-injection, which is ultimately negatively impacting well performance.
4. **The energy transition has caused a fundamental re-think of how things are done in the industry, including licensing**. The challenge is attracting new investors to explore Ghana's acreage, given global efforts to move from fossil fuels to renewable energy. There is the **need to consider the changing landscape and evaluate whether competitive bidding remains the best option for now**.
5. **Ghana's upstream petroleum industry is still primarily an enclave with local industries limited mainly to the non-technical aspects of the industry**. The African Continental Free Trade Area (AfCFTA) also has necessitated looking at local content no longer exclusively on the local level but the regional.

Revenue allocation, distribution, and utilisation

6. Cumulatively, **we estimate that about US$31.22 billion of value has been generated from all of Ghana's three producing fields, comprising both entitlements due to the contractor parties and the Ghana Group**. The achieved selling prices of the Ghana Group's crude entitlement was closely aligned to traded Brent prices, reflecting a continuous and commendable effort to generate value for the country.
7. **The Ghana Group has earned US$6.55 billion in total petroleum receipts between 2011 and 2020, equivalent to (9.97% of 2020 GDP**). Regarding the breakdown of petroleum receipts by fiscal instrument, we find that **carried & participating interest (CAPI) has by far generated the highest share for Ghana, accounting for 58% or US$3.81 billion** of the total US$6.55 billion revenue earned. This is followed by royalties at 25% (1.64 billion) and then

corporate income tax at 17% or US$1.08 billion. Other smaller income receipts include gas receipts, income (interest) earned on the PHF, and price differentials/other income. In order to improve revenue contribution from CAPI, there is the need for Ghana to diligently review costs submitted by the operators since this has a direct impact on net proceeds available to the Ghana Group.

8. **Annual Budget Funding Amount (ABFA) has been allocated the highest amount of US$2.6 billion (40%) over the period**. This is followed by Ghana National Petroleum Cooperation (GNPC) receiving US$2.0 billion (30%), representing both equity financing costs (Level A receipts) and other operational expenses (Level B receipts). GNPC's total equity financing costs (Level A receipts) amounted to US$1.14 billion over the period, representing 55% of the total GNPC allocations. Level B receipts for other expenditures such as staffing and other operational costs amounted to US$921 million or 45% of total allocations. Also, the Ghana Stabilisation Fund (GSF) has received US$1.39 billion (21%) of total revenues, whereas the Ghana Heritage Fund (GHF) has received US$586 million (9%) of the total allocation. These allocations are broadly consistent with the PRMA 2011, Act 815 (as amended).
9. ABFA has been a critical financing source for the national budget. Nevertheless, w**hile total benchmark revenue allocations to ABFA amounted to GHS9.41 billion (US$2.61 billion), allocations, on the other hand, amounted to GHS8.51 billion (US$2.28 billion), leaving the balance being swept into the Consolidated Fund** under the government's Treasury Single Account (TSA) policy.
10. In terms of allocations, **we find that the ABFA has been spent on seven (7) out of the twelve (12) priority areas** specified under the PRMA. Accordingly, ABFA allocations have been on the following priority order (scale): (1) Roads, railways, and other infrastructure: 53.51% of total ABFA allocations; (2) Physical Infrastructure and service delivery in education: 21.74%, of which government's flagship programmes such as the Free SHS policy accounts for most of the ABFA education spending; (3) Expenditure on amortisation of loans for oil and gas infrastructure: 10.11%; (4) Agriculture modernisation: 8.02%; (5) Capacity building (including oil and gas): 4.21% of total ABFA allocations; (6) Physical infrastructure and service delivery in health: 1.40% of total ABFA allocations; (7) Ghana Infrastructure Investment Fund (GIIF): 0.52% of total ABFA allocations; (8) Industrialisation: GHS31.80 billion (0.37%) of total ABFA allocations; and (9) Public Interest and Accountability Committee (PIAC): 0.14% of total ABFA allocations.
11. **We find evidence of ABFA allocations being spread across the length and breadth of the country**, thus **partially satisfying** the requirement under Section 21(2)(c) of the PRMA to undertake even and balanced development of the regions. However, **the micro-level evidence base also indicates that the selection of several ABFA-funded projects was not participatory; it was instead imposed top-down from Accra rather than** bottom-up. **In addition, rules governing the selection of spending areas in the PRMA are not consistent with resource allocation structures under the budget,** posing potential risks of non-compliance to efficient prioritisation as required under the PRMA.

12. While the PRMA mandates ABFA project selection to be guided by a medium-term expenditure framework (MTEF) aligned with a long-term national development plan, **a review of most medium-term plans (MTPs) of beneficiary Ministries indicates inadequate analysis and evidenced-based data to back the decisions in these documents**. This is **highly symptomatic of Ghana's underlying political settlements regime** whereby project selection in the national budget is very political, driven by political party manifestos rather than well researched and costed medium-term plans (MTPs) or even a national development plan. Furthermore, our review shows **no coordination and consensus between projects implemented across MDAs under the same ABFA spending area**. Also, there is no mechanism to ensure that ABFA disbursements made across multiple sector MDAs under the selected priority area are well coordinated to generate optimum social returns.
13. In essence, **ABFA investments have yielded some successes, but its overall impacts have been minimal, delayed, or negligible. Many stakeholders believe ABFA has not delivered their expectations in maximising the rate of economic development and enhancing their well-being**. Many of the challenges affecting the effective and efficient utilisation of petroleum revenues, especially the ABFA, are **macro-fiscal in form**. The potential for ABFA to deliver optimal outcomes is hinged on several underlying macro-fiscal factors, including the robustness of the existing public financial management system, efficient budget preparation, implementation, monitoring and accountability system, efficient macroeconomic management systems, among others. **The evidence points to weaknesses in these underlying factors**; hence the implementation of ABFA in the last decade has suffered from broader challenges associated with macro-fiscal management.

Management of the Ghana Petroleum Funds (GPFs)

14. The **lack of a clearly defined investment policy has constrained the ability of Fund Managers to earn higher returns on the GPFs**. These constraints were also **compounded by the non-constitution of the Investment Advisory Committee (IAC)** between 2017-2019, leading to organisations such as PIAC citing breaches of the PRMA. The GPFs' investment policy has been given impetus eight years down the line in the Petroleum Revenue Management Regulations, 2019 (L.I. 2381). The Minister for Finance has approved the policy and is awaiting Parliamentary approval. Another issue that stakeholders have raised over the years is the perceived politicisation of appointments onto the IAC.
15. We find that **74% of the withdrawals from the GSF have been used for debt repayment,** while 21% has been allocated to the Contingency Fund to deal with national emergencies such as the COVID-19 pandemic. Interestingly, only **4% has been utilised to shore up ABFA shortfalls**.
16. These **debt repayments are symptomatic of developments within the Ghanaian economy over the past decade.** Due to low domestic revenue mobilisation, increased interest payments have occasioned excessive borrowing (both domestically and externally) to meet budgetary shortfalls. Ghana's debt

servicing needs have become expensive due to the high coupon rates and volatility of the cedi, the local currency.

17. Given the historically low returns**, there is a need to rethink the GPFs' investment strategy to generate comparable returns to a benchmark portfolio**.

Institutional assessment of petroleum revenue management

18. We find that **The Bank of Ghana, Auditor-General, Public Interest and Accountability Committee and Petroleum Commission have demonstrated satisfactory progress** in implementing the relevant provisions of the PRMA. On the other hand, **the Ministry of Finance, Parliament, The Ghana Revenue Authority,** and **The Ghana National Petroleum Corporation have demonstrated meaningful progress** in implementing the relevant provisions of the PRMA. Lastly, The Investment Advisory Committee has demonstrated inadequate progress in our view.
19. Regarding ABFA utilisation, t**he PRMA falls short of prescribing the exact specifics or definition of these 12 areas**, leaving room for conflation and potential abuse by the political leadership of the day. In addition, there are other lingering questions about the impact of ABFA funded projects and the attainment of outcomes tied to broader national development objectives.
20. The **requirement under 21(2) of the PRMA** (as amended) for the ABFA to be used to (1) maximise the rate of economic development, (2) promote equality of economic opportunity to ensure the well-being of citizens, and (3) undertake even, and balanced development of the regions **is yet to be fully attained**.
21. It is a matter of common knowledge that after ten years since first oil, **there is the need to undertake a special audit of ABFA funds over the past ten years.** The audit could also focus on sectoral allocations in line with requirements of the PRMA and the PFM Act. The Special audit must be a joint institutional effort led by the Auditor General and supported by PIAC.
22. There is a **strong imperative to provide the GRA and other institutions such as the Petroleum Commission, IAC and Ministry of Finance with all the requisite human resources and tools** to undertake their critical mandate of petroleum revenue management more effectively and efficiently.

ES 2 - Overall institutional assessment

Institution	Level of Progress					Direction of Progress
	No Progress	Inadequate	Meaningful	Satisfactory	Beyond	
Ministry of Finance						→
Bank of Ghana						→
Parliament of Ghana						→
Ghana Revenue Authority						→
Investment Advisory Committee						→
Auditor-General						→
Ghana National Petroleum Corporation						→
Public Interest and Accountability Committee						→
Petroleum Commission						→

Source: Authors' construct

Way forward and recommendations

The report outlines policy recommendations to improve petroleum revenue management in Ghana. Recommendations are proposed based on the identified themes and itemised in below.

Recommendation Set 1: Petroleum production, sales, and revenue collection (extracting and taxing the resource wealth)

1. **Stabilisation agreements: The Ghanaian state needs to ensure that a material change has been well-established before changes are made to a petroleum agreement.** As Stephens and Acheampong (2021:21) have argued, *"equilibrium economic balancing clauses, which were enshrined in Section 13 of PNDCL 84 and currently in Section 20 of Act 919, must be able to be triggered by the IOC only where there is demonstrable proof that material changes in circumstances have indeed occurred that adversely affects the economic balance of the agreement and must not*

be used as a backdoor to re-negotiate terms already agreed upon, thus bastardising the licensing process"[1].

2. **Cost monitoring: Ghana must adopt a laser-like approach to cost monitoring as this, along with transfer pricing, are one of the major ways the State loses money in the industry**. There is a strong need for Ghana to fully vet costs provided by the IOCs, as this ultimately goes to the heart of whether the country would get its fair share of revenues. To effectively operationalise this, it is imperative **to provide adequate human resources and technical capacity (access to industry benchmarking software and databases) to the Ghana Revenue Authority (Petroleum and Transfer Pricing Units)** to conduct audits effectively. This includes authenticating shipment documents, verifying crude oil and gas export volumes and values, and establishing arms-length trading transactions involving related IOC entities.

3. **There is also the need for more institutional coordination and collaboration with other petroleum agencies to share data and ideas**. We advocate for the reconstitution and formalisation of the Multi-Agency Petroleum Revenue Committee (MAPERC) to serve as a technical inter-agency coordination committee. MAPERC, chaired by the GRA, would be the forum to resolve issues such as updating petroleum accounting guides, developing a petroleum tax guide, validating IOC tax returns and liabilities, validating IOC costs to calculate CIT and AOE, and setting the scope for specialised audits, among others.

Recommendation Set 2: Revenue allocation, distribution, and utilisation (Spending the resource wealth)

ABFA project prioritisation and project selection

4. **We advocate for official public criteria to guide the technical prioritisation of ABFA projects by beneficiary the Ministry of Finance and beneficiary MDAs.** This criterion should demonstrate how projects will be linked to the desired outcomes for spending ABFA, namely: (1) maximise the rate of economic development; (2) promote equality of economic opportunities to ensure citizens' wellbeing; (3) ensure even and balanced development of the regions; and (4) guided by a medium-term expenditure framework (MTEF). In other words, the **Minister of Finance's selection of ABFA priority areas should have an evidence-based justification and criteria to ensure the selection leads to the intended objectives of ABFA as specified in the law**. To achieve this, the PRMA must be amended correspondingly.

5. **In collaboration with beneficiary ministries and other relevant stakeholders, the Ministry of Finance should collectively develop this criterion for accessing**

[1] See Stephens, T. K., & Acheampong, T. (2021). Does the politics matter? Legal and political economy analysis of contracting decisions in Ghana's upstream oil and gas industry. *The Journal of World Energy Law & Business*.

ABFA funds. The **criteria must be binding** and are expected to ensure that ABFA projects selected by beneficiary Ministries have answered the following questions - projects should be ranked based on four simple criteria:

a. **Rationale:**
    i. Should the public sector do this, or can the private sector adequately undertake the activity?
    ii. Does the project target the poor?
b. **Cost-effectiveness:**
    i. For the output of the project, has the least-cost alternative been identified?
    ii. Are multi-year implications laid out, and is the project likely to be self-financing after completion?
c. **Benefit-cost (including identification of beneficiaries):**
    i. Have benefits (e.g., social, financial) been quantified?
    ii. Do benefits exceed costs?
d. **Risk and mitigation:**
    i. Is the project likely to be completed on time?
    ii. Have allowances been made to address potential physical and financial contingencies?
    iii. Are there institutional/managerial/technical constraints in carrying out the project?
    iv. Are there any environmental risks?
e. **Robust and transparent procurement of projects selected under ABFA**
f. **Clear coordination between national and subnational during project preparation**
g. **Robust monitoring and evaluation framework**
    i. Does the project have robust monitoring and evaluation framework that is well costed?

6. **A more comprehensive and decentralised project preparation, planning and monitoring process is needed to ensure ABFA projects are strictly monitored and delivered on time.** District Assemblies should be actively involved in selecting and implementing projects in their jurisdictions to ensure that projects are priority projects and in line with the medium-term development plans of the Assemblies.

ABFA allocation and disbursement

7. To improve effective disbursements of ABFA, **all beneficiary MDAs must be required to prepare ABFA projects, complete procurements, and ensure clear projects are ready for disbursements** before they qualify to be funded by ABFA
8. **Strengthen internal coordination between the Ministry of Finance (Public Expenditure Management Unit) and beneficiary Ministries** to enhance enforcement of funding allocations between capital expenditures and other expenditures as provided in the Act. Allocation of ABFA funds must be continuous and consistent to see to project completion.

9. **Amend the PRMA to provide a legal requirement for enhanced transparency and effective accountability for unutilised ABFA balances**. Where applicable, create an ABFA fund to ensure unutilised amounts are reverted to that Fund

ABFA implementation

10. **The Ministry of Finance must ensure that ABFA projects are accompanied by a robust monitoring and evaluation plan that includes** disaggregated responsibility between national and subnational structures to enhance supervision and monitoring of projects.

ABFA reporting and audit

11. **ABFA reporting by the Ministry of Finance and PIA must be expanded** to include the share of ABFA allocation to projects, details on other counterpart funding, details of contractors responsible for projects and supervisors responsible for ABFA funded projects
12. **It is trite ten years since first oil to undertake a special audit of ABFA funds.** The audit should also focus on sectoral allocations aligned with the PRMA and the PFM Act. The special audit will be a joint institutional effort led by the Auditor General and supported by PIAC

Recommendation Set 3: Management of the Ghana Petroleum Funds (spending the resource wealth/saving for a rainy day)

13. As a matter of priority, the Minister for Finance should **forward to Parliament for approval the long-delayed investment policy and qualifying instruments** for the overall management of the Ghana Petroleum Funds, which was drafted by the IAC and approved by the Minister in 2020.
14. The **Minister of Finance, in collaboration with the IAC, must prioritise fast-tracking the development of the benchmark portfolio and desired returns and associated risks for the Ghana Petroleum Funds**. The ministry has made commendable efforts to prepare an updated draft Operations Management Agreement (OMA) with the Bank of Ghana (BoG); however, incorporation of the "Business Plan" in the OMA, which would allow BoG (the Fund manager) to move asset allocation from 100% treasuries to a more balanced portfolio that includes equities and alternative assets, is still pending.

Recommendation Set 4: Other specific institutional recommendations

GNPC

15. **There is a need for an amendment to the PRMA to allow the GNPC Body Corporate to borrow commercially using its net share/entitlements of the CAPI (Level B funding) to expand its operations.** However, this may not be the case if the Corporation decides to use any of its commercial affiliates and subsidiaries such as GNPC Explorco to do this. Any commercial borrowing must have a clearly justified and well-laid business case on how the monies will be utilised and appropriate

benchmark returns estimated, including the value at risk (downsides). Also, guidelines and limits on GNPC borrowings to be funded under the Equity Financing Cost must be appropriately established. This should be clearly spelt out in any amendment to the PRMA together with the approval process.

16. **GNPC needs to improve its corporate governance structure if its aspirations to become a world-class operator by 2027 are to be realised.** Currently, there is too much political interference (external influences) in the decision-making, which constrains the body corporate's ability to make optimal choices. These pressures are widely symptomatic of Ghana's prevailing political economy and political settlements whereby senior management and Board are changed with every new government. If nothing serious is done to position the NOC on a firmer footing, operating on sound commercial and technical principles, then it is highly unlikely that Ghana would be able to generate any higher returns or revenues to sustain the economy, especially given the pressures of the looming energy transition. **To do this, we recommend appointment to the GNPC Board based solely on technocratic expertise and which should be clearly defined in an update (amendment) to PNDCL 64)**. Board appointments must include independent institutional representatives, particularly from the Petroleum Commission, EPA, the local supply chain, and academia/civil society. Qualifications to be an independent director must be seasoned professionals with experience in petroleum, legal and financial matters. Furthermore, criteria for evaluating performance should be formally constituted to ensure effective running of the organisation and deepen accountability.
17. **GNPC needs to re-prioritise its investment portfolio.** Our analysis shows that GNPC has stakes in several other ventures which are unprofitable or not aligned with the Corporation's core ethos and strategic intent of becoming a world-class operator by 2027. In this regard, there is a need for a more comprehensive strategic re-prioritisation and re-alignment of the total investment portfolio to ensure value chain benefit maximisation.

PIAC

18. **PIAC could go further in its assessment mandate — detailed value-for-money and impact analysis on ABFA allocations are needed ten years down the line, especially at a sectoral level.** Time constraints and data availability meant that we could not analyse the percentage contributions of ABFA to projects vis-à-vis other Government of Ghana counter-party funding. This disaggregated data can be requested under a Freedom of Information (FOI) request to the Ministry of Finance and beneficiary MDAs for ABFA-funded projects. PIAC should seek to formally write to the Ministry of Finance to provide this data which will allow additional value for money analysis of the impact of ABFA-Funded projects.
19. **PIAC would need to deepen its advocacy to reach other critical voices and stakeholder groups using new media collaborations and channels.** PIAC undertakes an extremely important accountability function in checking what is happening with Ghana's oil and gas industry and revenues. PIAC produces much good work. However, some stakeholders believed that PIAC had not utilised the media to make their case as well as they could have done. The information and output

that PIAC generates need to reach more audiences. In this regard, there is an opportunity for a new PIAC communication strategy. PIAC could partner with selected media organisations and train some media fellows to use the reports and data that they generate. The media would help the wider public understand PIAC's outputs report through, for example, the use of creative infographics.

Investment Advisory Committee

20. The **IAC must update its website with more current information** and reports.

1 Introduction

This section sets out the following:

- Background and introduction to the report.
- Specific objectives and scope of the work.
- The methodology used, limitations and structure of the report.

1.1 Background

Commercial production of oil and gas in Ghana commenced in December 2010 following the discovery of the play-opening Jubilee Field offshore Ghana in 2007 by a consortium of international oil companies (IOCs) in conjunction with the Ghana National Petroleum Corporation (GNPC), Ghana's national oil company. Since then, oil and gas production and exports have provided a critical boost to Ghana's economy over the past ten years. It has become a fundamental component of the country's industrial strategy and transition to a middle-income country, acting as the lever to provide jobs and energy security.

During the period, Ghana has put in place several legislative and regulatory frameworks, including the Petroleum Revenue Management Act (PRMA), 2011 (Act 815 as amended) to ensure effective management of the industry and avoid the so-called 'resource curse' and paradox of plenty which has afflicted several resource-rich countries, including several neighbouring ones. The Act provides the framework for the collection, allocation, and management of petroleum revenues in a responsible, accountable, and sustainable manner for the benefit of citizens, consistent with Article 36 of the 1992 Constitution.

After over a decade of implementation, it is timely to assess Ghana's management and use of petroleum revenues to identify areas of strength and weakness to strategise for the future. This encompasses an assessment of the performance of the institutions assigned duties by the PRMA for the past decade and a thorough evaluation of the socio-economic impact of the management and use of petroleum revenue on the development of Ghana.

The findings from the study will be shared with government institutions, key stakeholders, including the international oil companies (IOCs), civil society organisations (CSOs), development partners, the media, and the public. For example, The Public Interest and Accountability Committee (PIAC), as an accountability body, could also use the findings to engage citizens on the way forward on oil governance. PIAC reports issued semi-annually and annually capture critical governance issues in the oil and gas sector — encompassing processes and mechanisms for production, transportation, sales, revenue generation, revenue sharing and management, and accountability issues, among others. Despite these very positive and informative semi-annual and annual reports, it is necessary to holistically document the happenings in Ghana's oil and gas industry over the past ten years (2011-2020) and distil the practical policy lessons for the phase of the industry in Ghana.

1.2 Specific objectives of the assignment

1.2.1 *Purpose*

This work assesses the performance of the institutions assigned duties by the PRMA for the past decade (2011-2020). It also evaluates the socio-economic impact of the management and use of petroleum revenue on the development of Ghana. Finally, it assesses the extent of implementation and achievement of the objects of the PRMA and the use of petroleum revenues for the past ten years.

1.2.2 *Scope*

Undertaking this assignment ultimately encompasses providing an overview of Ghana's upstream petroleum industry. This includes, among others, the history, policies, regulatory and legal developments.

The report also assesses the performance of relevant institutions in the following thematic areas:

- Petroleum production and sales.
- Revenue collection and management, and revenue distribution.
- Allocation and utilisation, including at the sub-national level.
- Annual budget funding amount (ABFA).
- Management and performance of the Ghana Petroleum Funds (Heritage and Stabilisation Funds).
- Revenues allocated to GNPC and its uses per the NOC's mandate in the Ghana National Petroleum Corporation Act, 1983 (PNDCL 64).

Finally, we proffer recommendations on the management and use of petroleum revenues in Ghana. Figure 1 outlines the broad scope of the report.

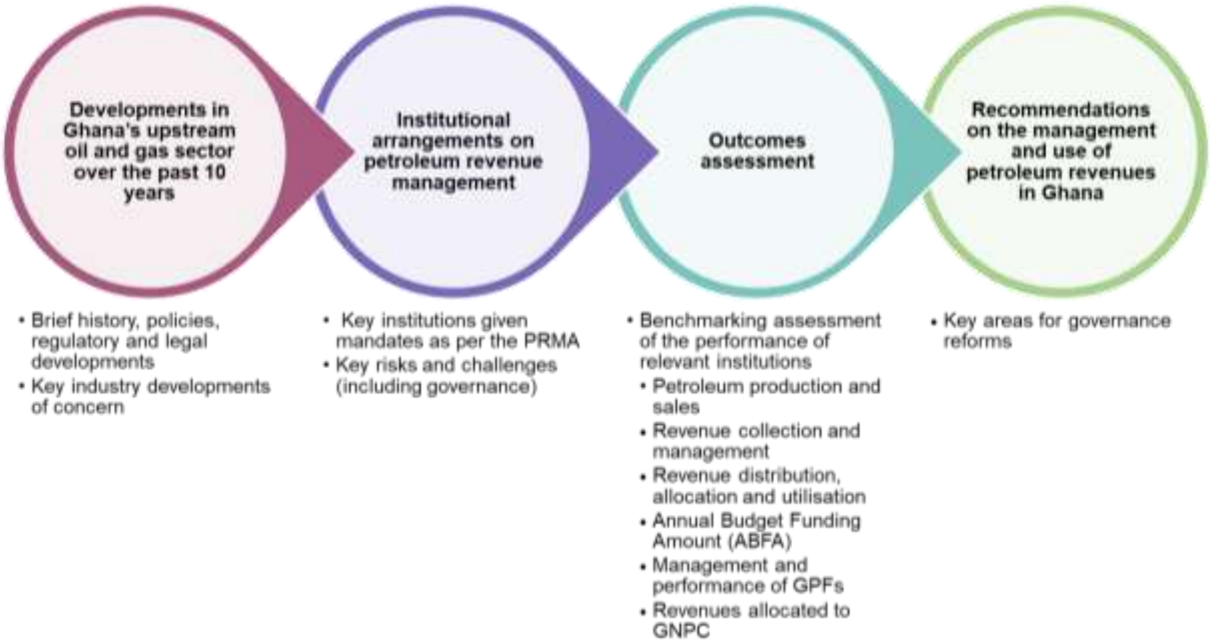


Figure 1: Broad scope of the report

Source: Authors' construct

1.3 Methodology and key issues framing

The methodology used in producing this report encompassed qualitative, quantitative and political economy analysis (see Figures 2 and 3). These are explained in more detail below.

1.3.1 *Qualitative analysis*

- **Desk literature review:** We conducted an extensive literature review covering relevant documents across Ghana's upstream petroleum sector.[2] The literature review aimed to understand the main stakeholders and their responsibilities or mandate concerning petroleum revenue management in Ghana. This was then used to identify the key themes used to develop a scoring system to assess the different agencies involved in petroleum revenue management in Ghana.

- **Stakeholder mapping and analysis:** This involved a deep dive mapping and analysis of the different stakeholders involved in petroleum revenue management in Ghana to understand stakeholder interests and needs and how that has evolved. This was done through administering multiple semi-structured key stakeholder interviews (KIIs) with persons and organisations engaged in the national policy debate on petroleum taxation and revenue management. This exercise also helped identify possible misalignment in stakeholder interests and motivations. It highlighted some social and institutional aspects of petroleum

[2] See Appendix for list of all documents reviewed

revenue management that needs to be addressed, which are captured in the recommendations.

1.3.2 *Quantitative analysis*

- **Analysis and reconciliation of data** collected from relevant stakeholder institutions.
- **Independent verification** of source documents from stakeholders.
- **Spreadsheet-based data triangulation and modelling** were then undertaken to establish the revenues from Ghana's interests in its offshore oil and fields.
- The modelling is extended to forecast **petroleum revenues up to 2035**.

1.3.3 *Political economy analysis*

- The findings from the qualitative and quantitative analyses are further analysed using a **Problem-Driven Political Economy Analysis (PDPEA)** to identify the range of possible intervention areas (Figure 2).

- These are then **synthesised with fishbone (Ishikawa) diagrams** of sector governance or policy problems in the context of revenue management. Ishikawa diagrams are used to identify the root causes of each problem and entry points for each issue in terms of intervention or output areas. Additionally, triangulation helps to identify the consistency of findings from the information provided by stakeholders and validate anecdotal information with available empirical data.

- **A Triple-A (Authority, Acceptance and Ability)** criteria of the different elements required for successful reform are used to stress-test the identified recommendations or reform entry points (Figure 3). Reform entry points are customised for identified stakeholders to use as part of their broader advocacy strategies to improve petroleum revenue management practices in Ghana.

This all-encompassing approach allows for harnessing the underlying data and the views of multiple stakeholders involved in petroleum revenue governance and administration.

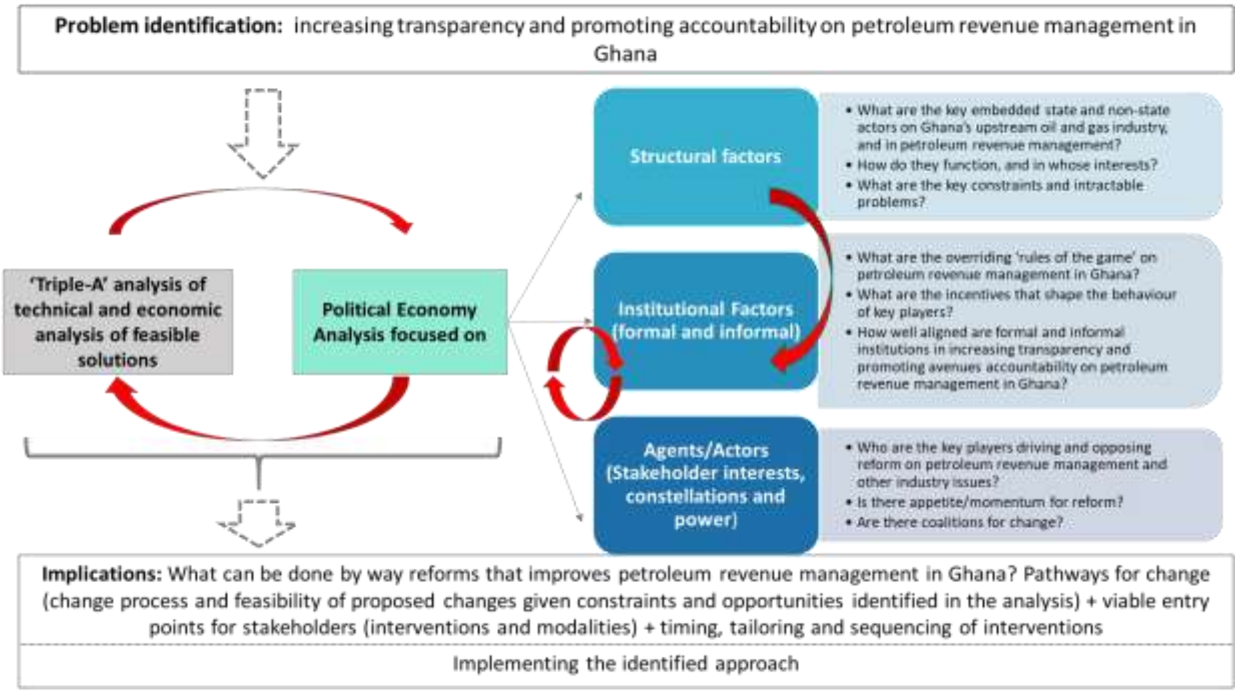


Figure 2: Problem-Driven Political Economy Analysis framework for petroleum revenue management in Ghana

Source: Authors' construct

Figure 3: Triple-A' (Authority, Acceptance and Ability) Criteria

Source: Authors' construct

1.4 Limitations of the report

Despite our best attempts to comprehensively address all the issues related to petroleum revenue management and use over the past ten years, we note a few challenges:

- We could not undertake an analysis showing the percentage contributions of ABFA to projects vis-à-vis other government of Ghana counter-party funding due to data availability and time constraints. However, this disaggregated data can be requested later from the Ministry of Finance and beneficiary MDAs for ABFA-funded projects. Therefore, PIAC should seek to formally write to the Ministry of Finance to provide this data which will significantly allow additional value for money analysis of the impact of ABFA-Funded projects.

- While we have collated over 1,230 data points on ABFA-funded projects, we are yet to produce a visual map of these to show the spatial distribution of the spread of ABFA projects. We have created meta tags for all these data points, including reclassifying them into the main ABFA priority area, sub-area, project description, region, and amounts spent. Nonetheless, the original data lacks exact geographical coordinates of the actual towns or places. Therefore, we are extracting this place information from the project descriptions. We will then produce a high-level map with customisable layers that can be toggled to see the spatial spread of ABFA projects. The expectation is that this map will be hosted on the PIAC website, and the API link provided to other accountability organisations to do the same.
- Due to data availability constraints, we could not undertake the comparative cost benchmarking of Ghana upstream vis-à-vis other regional projects. Undertaking such an exercise will require subscription to industry software packages from platform vendors such as Wood Mackenzie and IHS Markit, among others. The cost provision for this falls outside the scope of this work.
- We could not complete the scope on revenue outlook projection to 2040. While we have the petroleum agreements for the various fields and estimates of production volumes for all current producing fields and yet-to-be commissioned ones, getting good quality cost data significantly delayed this work component. Given that a similar modelling assessment is currently being undertaken as part of a project by NRGI Ghana, we think that this is a duplication of effort, more so given that the NRGI model will be made publicly available once completed. The NRGI model is an update of a prior model developed in 2018 by one of the consultants.[3]

1.5 Structure of the report

The remainder of the report is structured as follows:

- **Section 2** undertakes an overview of Ghana's upstream oil and gas industry
- **Section 3** undertakers hydrocarbon accounting of petroleum production and revenue inflows
- **Section 4** assesses GNPC's mandate and evolution, allocated petroleum revenues and uses, and political economy drivers at the Corporation.
- **Section 5** assesses the impact of petroleum revenues on Ghana's socio-economy and real sector.
- **Section 6** analyses the management of the Ghana Petroleum Funds and associated concerns

[3] See GOGIG (2018). Ghana Petroleum Revenue Forecast Model and Technical Manual. Ghana Oil and Gas for Inclusive Growth/Oxford Policy Management/Ghana Revenue Authority

- **Section 7** assesses the performance of the relevant institutions on petroleum revenue management
- **Section 8** concludes and provides recommendations on strengthening Ghana's upstream oil and gas industry.

2 Overview of Ghana's Upstream Oil and Gas industry

This section examines

- The legal, institutional and regulatory framework governing Ghana's upstream oil and gas industry.
- Specifically, we review the Petroleum Revenue Management (PRMA) Act, 2011 (Act 815 as amended and the related flows.
- We also review the petroleum agreements signed over the years as well discuss some of the major contentious issues that have taken place regarding some of these contracts since 2010.
- We also undertake a diagnostic (SWOT) analysis of broader issues in the industry.

2.1 Legal and regulatory framework

The legal framework governing Ghana's petroleum industry is a melange of constitutional and statutory provisions (Acts and Legislative Instruments). Regarding the constitutional provisions, Article 4(2) of the 1992 Fourth Republican Constitution states that Parliament *"may by law provide for the delimitation of the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf of Ghana."* Article 257(6) of the Constitution also states that *"every mineral in its natural state found in Ghana is the property of the Republic of Ghana and is vested in the President for and on behalf of the people"*. As such, all minerals, including oil and gas, is vested in the President, and it is argued that this constitutional provision mandates for licensing to be done by the Executive via the sector minister, for and on behalf of the President. Article 268(1) requires ratification of all natural resource agreements unless exempted by Parliament under Article 268(2). Article 269(1) mandates for the formation of natural resource commissions for the regulation, management and utilisation of natural resources and the coordination of policies in relation thereto. It is under the aegis of this provision that the Petroleum Commission, the upstream regulator, has constitutional backing.

In respect of the statutory framework, prior to the advent of the large-scale commercial discovery in 2007, the legislation in place directly related to the petroleum industry was the *Ghana National Petroleum Corporation Act,* 1983 (PNDCL 64), the *Petroleum (Exploration and Production) Act,* 1984 (PNDCL 84), and the *Petroleum Income Tax Act*, 1987 (PNDCL 188). The latter two have been repealed, as shown in **Table 1** below.

Table 1: Repealed legislations

Legislation	Repealed By
Petroleum (Exploration and Production) Act, 1984 (PNDCL 84)	*Petroleum (Exploration and Production) Act*, 2016 (Act 919)
Petroleum Income Tax Act, 1987 (PNDCL 188)	*Revenue Administration Act,* 2016 (Act 915)

Source: Authors' construct

The current principal legislation governing the petroleum industry are:

- *Ghana National Petroleum Corporation Act*, 1983 (PNDCL 64)
- *Petroleum Revenue Management Act*, 2011 (Act 815)
- *Petroleum Commission Act*, 2011 (Act 821)
- Part VI of the *Income Tax Act*, 2016 (Act 896) as amended
- *Petroleum (Exploration and Production) Act*, 2016 (Act 919)

Table 2 below shows the subsidiary legislations enacted.

Table 2: Subsidiary legislations governing Ghana's upstream oil and gas industry

Legislation	Legislation Enacted Under
Ghana Maritime Authority (Fees and Charges) Regulations, 2012 (L.I 2009)	*Ghana Maritime Authority Act,* 2002 (Act 630)
Ghana Shipping (Protection of Offshore Operations and Assets) Regulations, 2012 (L.I 2010)	*The Ghana Shipping Act,* 2003 (Act 645)
Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I 2204)	*Petroleum Commission Act,* 2011 (Act 821)
Petroleum Commission (Fees and Charges) Regulations, 2015 (LI 2221)	*Petroleum Commission Act,* 2011 (Act 821)
Petroleum (Exploration and Production)(Measurement) Regulations, 2016 (L.I. 2246)	*Petroleum (Exploration and Production) Act,* 1984 (PNDCL 84)
Petroleum (Exploration and Data) (Data Management) Regulations, 2017 (L.I. 2257)	*Petroleum (Exploration and Production) Act,* 2016 (Act 919)
Petroleum (Exploration and Production)(Health, Safety and Environment) Regulations, 2017 (L.I. 2258)	*Petroleum (Exploration and Production) Act,* 2016 (Act 919)
Petroleum (Exploration and Production)(General) Regulations, 2018 (L.I. 2359) *as amended by the:*	*Petroleum (Exploration and Production) Act,* 2016 (Act 919)
Petroleum (Exploration and Production)(General)(Amendment) Regulations, 2019 (L.I 2390)	*Petroleum (Exploration and Production) Act,* 2016 (Act 919)
Petroleum Revenue Management Regulations, 2019 (L.I. 2381)	*Petroleum Revenue Management Act,* 2015 (Act 815)

Source: Authors' construct

2.2 Institutional framework

Ghana has reviewed, updated and improved its institutional framework for the upstream oil and gas sector over the past ten years to improve governance outcomes — promote transparency and accountability, and reduce bureaucratic red tape (Figure 4). This has been done with a view towards:

i. managing the technical, environmental and social risks within the sector;
ii. maximising the direct (fiscal revenues), indirect and induced (local content, supply chain and wider industrial development) benefits to the country; and
iii. building the capacity to engage effectively with investors (IOCs) and the supply chain.

The institutional capacity to oversee and manage the upstream oil and gas sector rests with various government ministries, commissions and other departments (Figure 5). A few key ones are highlighted and discussed.[4]

- **Ministry of Energy:** The Ministry has mainly policy and oversight functions, and the Minister is in charge of myriad matters, including licensing of acreage. Prior to the formation of the Petroleum Commission, the Ministry was the mandated regulator of the industry. However, in practice, the national oil company, GNPC, engaged in regulation subject to the oversight and approval of the Minister as expertise was within GNPC and not the Ministry. Presently, the Ministry is "responsible for energy policy formulation, implementation, monitoring and evaluation as well as supervision and coordination of activities of Energy Sector Agencies."[5] In line with the natural resources being vested in the President for and on behalf of the people, the Minister as the representative of the Executive is vested with the authority to open an area for petroleum activities,[6] close and redefine an area,[7] grant reconnaissance licenses,[8] license acreage,[9] approve or appoint an Operator where the parties cannot agree on one,[10] grant approval for the assignment of an interest,[11] grant approval for the development plan,[12] grant approval of a decommissioning plan, [13] among others.

- **Ghana National Petroleum Corporation:** The national oil company performs a commercial role and is a party to every petroleum agreement. As noted, prior to the formation of the Petroleum Commission, it acted as the de-facto regulator of the industry and also performed advisory functions to the Minister. With the

[4] The institutional assessment of capacity gaps at the administrative and technical levels is undertaken in Section 7 of this report
[5] Ibid (n 4)
[6] Section 7 of Act 919 – *Opening of an Area*
[7] Section 8 – Closure and Redefinition of An Area
[8] Section 9(1) – Reconnaissance License
[9] Section 10 -Petroleum Agreements
[10] Section 13 - *Operator*
[11] Section 16 - *Assignment*
[12] Section 27 – Plan of Development and Operation
[13] Section 44 – Decision on the Decommissioning Plan

formation of the Petroleum Commission, it was sought to shed it of all vestiges of regulatory powers. Thus, Section 24(3) of the *Petroleum Commission Act*, 2011 (Act 821) titled *Transitional Provisions* stated: "Subject to the other provisions of this Act, a Government agency or authority shall not exercise any function in relation to the regulation and management of the utilisation of petroleum resources and the coordination of policies in relation to that function." The advisory function it also performed was to cease. As such, Section 24(2) stated; "Six months after the commencement of this Act, the Ghana National Petroleum Corporation shall cease to exercise any advisory function in relation to the regulation and management of the utilisation of petroleum resources and the coordination of policy in relation to that function." However, GNPC continues to play a limited advisory role to the sector minister as and when necessary. Its governing Act is the *Ghana National Petroleum Corporation Act,* 1983 (PNDCL 64).

- **Ghana Petroleum Commission:** This is the mandated regulator of the industry and performs managerial, technocratic, and regulatory functions, as well as an advisory role to the Minister. The Ghana Petroleum Commission finds its constitutional grounding in Article 269 of the constitution, which mandates "…for the establishment, within six months after the coming into force of this Constitution, of a Minerals Commission, a Forestry Commission, Fisheries Commission and such other Commissions as Parliament may determine, which shall be responsible for the regulation and management of the utilisation of natural resources concerned and the co-ordination of the policies in relation to them." It was established under the *Petroleum Commission Act,* 2011 (Act 821) "…for the regulation and the management of the utilisation of petroleum resources and to provide for related purposes." The Commission, in practice, functions as an agency under the Ministry of Energy and is not an independent regulatory body. It is the case that even under Section 10 of its governing Act, titled *Ministerial Directives for the Commission*, "The Minister may give directives in writing to the Board on matters of policy and the Board shall comply."

  Thus, this is the core institutional framework for Ghana's upstream petroleum industry, closely resembling the Norwegian institutional framework. Within Ghana's industry, there are also other institutional actors:

- **Ghana National Gas Company:** This is the national gas company and from 2020, per a directive from the Presidency, became the mandated aggregator of the gas in the industry though in practice, GNPC undertakes this role. When the Jubilee Field started producing crude oil in 2010, there was no infrastructure to utilise the gas, which was being realised as a by-product. Gas that could not be utilised within the field, such as for re-injection into the reservoirs, had to be flared. This highlighted the pressing need to put appropriate infrastructure in place to benefit from the gas. The government sanctioned establishing an indigenous company to undertake this project resulting in the establishment of the Ghana National Gas Company (GNGC). GNGC owns and operates infrastructure for gathering, transporting and marketing of natural gas resources in Ghana.[14] GNGC was incorporated in July 2011.[15] However, it started official production in November 2014.[16]

- **Environmental Protection Agency:** It is responsible, in conjunction with the Commission, for matters dealing with Health, Safety and Environment (HSE) and works in conjunction with other bodies. This institution pre-dated the large-scale commercial discovery and was established under the *Environmental Protection Agency Act,* 1994 (Act 490).

- **Public Interest and Accountability Committee (PIAC):** It is a statutory body charged with the monitoring and compliance by the government of the Act that governs petroleum revenue management in Ghana. Its objects are stated as to monitor and evaluate compliance with the *Petroleum Revenue Management Act,* 2011 (Act 815) by government and other relevant institutions, to provide space and platform for public debate, and to provide independent assessments on the management and use of petroleum revenue. It is composed of 13 members who have security of tenure and cannot be removed unless otherwise provided for by law, or for medical reasons. They may not be suspended, retired or removed from office.[17]

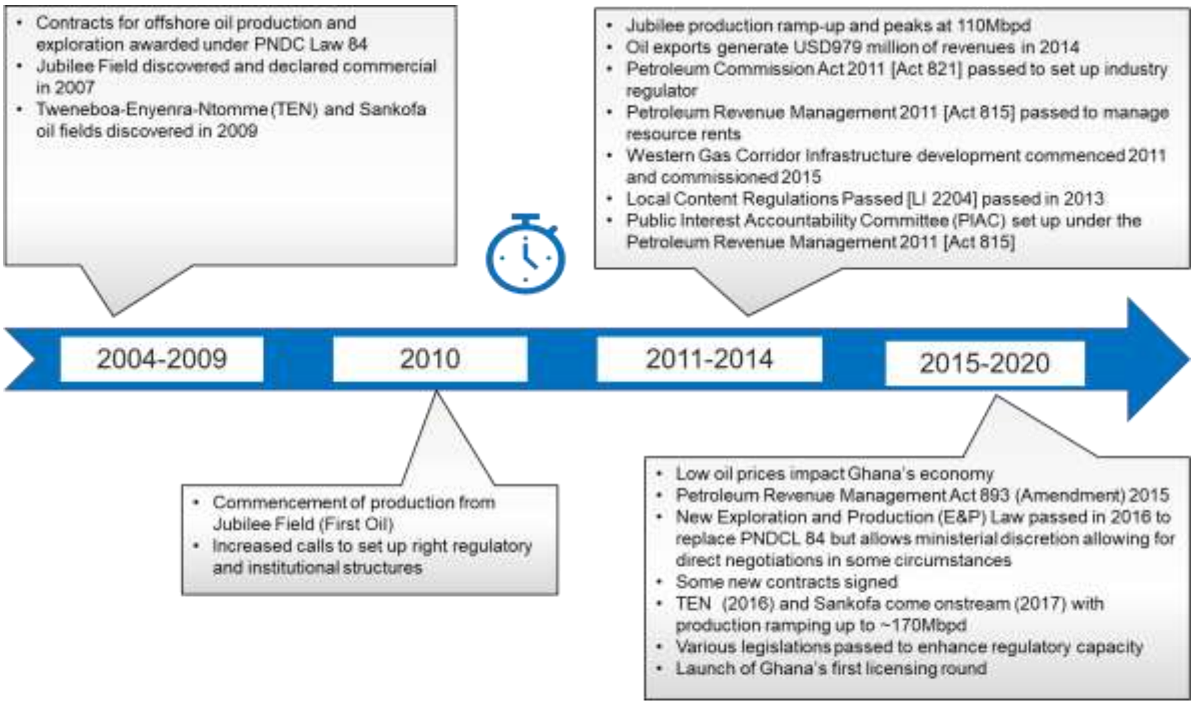


Figure 4: Key milestones in Ghana's upstream oil and gas industry

Source: Authors' construct

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[14] Public Interest and Accountability Committee, "Annual Report on Management of Petroleum Revenues for Year 2020" 68
[15] Ibid (n 14)
[16] Public Interest and Accountability Committee (n 14) 63
[17] Section 55(6) of the *Petroleum Revenue Management Act*, 2011 (Act 815)

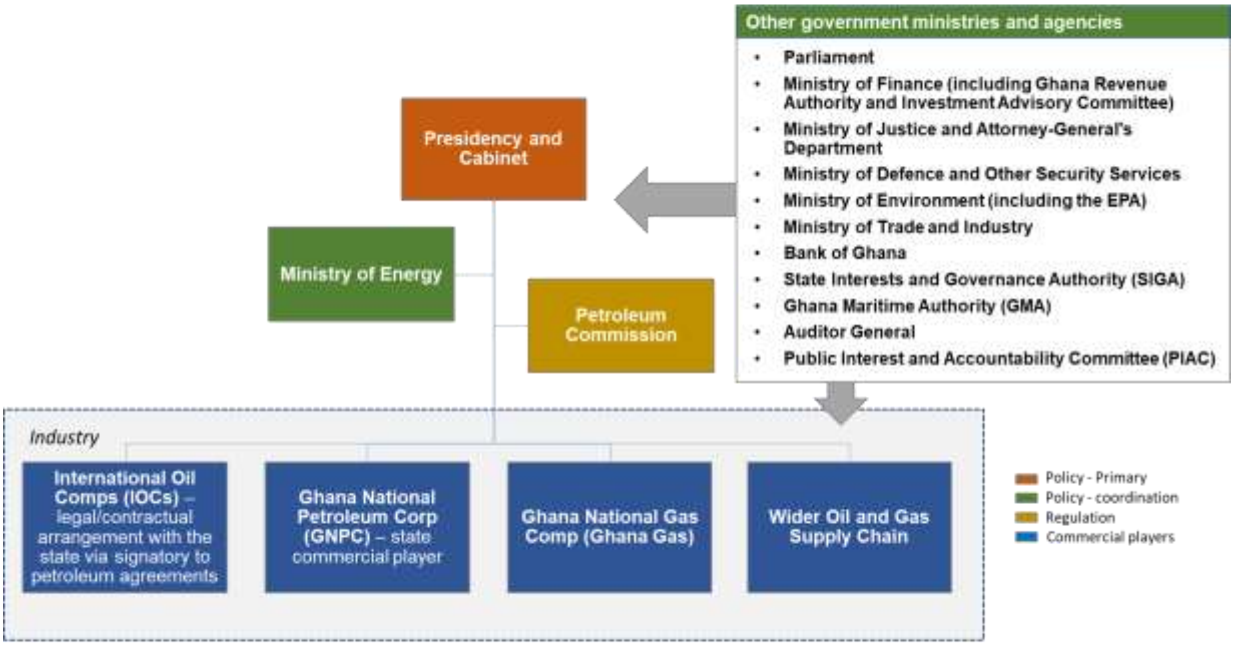

Figure 5: Ghana's oil and gas regulatory architecture

Source: Adadzi et al. (2022; pg.8)[18]

2.3 Petroleum agreements

Before the large-scale commercial discovery, Ghana's petroleum agreements were primarily based on the 2000 Model Petroleum Agreement (MPA). The primary legislation at the time governing the regulation of operations in the industry, the *Petroleum (Exploration and Production) Act*, 1984 (PNDCL 84), was not comprehensive and did not cover several issues. As such, these had to be provided for by insertion of clauses in the petroleum agreement to be entered into with the IOC, and the modifications were maintained in subsequent agreements entered. The MPA kept being modified and enhanced to cater for a variety of issues such as Capital Gains Tax, changes in the institutional framework with the addition of the Petroleum Commission, expunging of obsolete provisions and terminologies, and pre-emption clauses/right of first refusal in the event an IOC attempted to sell its interest.

When the *Petroleum (Exploration and Production) Act,* 2016 (Act 919) was enacted, all these insertions and improvements were considered and incorporated. In 2019, the MPA was modified, and many of these changes over time were now encapsulated in law. The updated MPA referred to the relevant provisions in the *Petroleum Act*, 2016, the *Petroleum (Exploration and Production)(General) Regulations,* 2018 (LI 2359) and the *Petroleum (Exploration and Production)(General) (Amendment) Regulations,* 2019 (LI 2390). The updated MPA, 2019 basically transposes the MPA, 2000 along with its modifications over time, as well as the statutory developments in the *Petroleum Act*,

[18] Adadzi, F.D., Godson-Amamoo, N.S., & Nunoo, J. (2022). The Ghanaian State and Governance of the Upstream Oil and Gas Industry. In: Acheampong, T and Stephen TK. (eds) *Petroleum Resource Management in Africa: Examining the Lessons from Ten Years of Oil and Gas Production in Ghana*. Palgrave MacMillan

2016, and other relevant legislation, and makes direct references to the legislation in the Agreement itself.[19] Table 3 shows the changes between the 2000 and 2019 MPA.

Table 3: Changes between the 2000 and 2019 Model Petroleum Agreement

Model Petroleum Agreement 2000	Model Petroleum Agreement 2019
Sole Risk' was defined as "an operation conducted at the sole cost, risk and expense of GNPC…"[20]	Sole Risk' is defined as "an operation in petroleum activities conducted at the sole cost, risk and expense of the contractor or the Corporation in accordance with the terms of a petroleum agreement."
Defined only gross negligence	"Wilful Misconduct" has been defined alongside the existing Gross Negligence.[21]
Agreements entered into prior to 2016 largely have a carried interest of 10%	Those entered into after this period have a minimum carried interest of 15% as required by Section 10(14) of the *Petroleum Act*, 2016.[22]
Under the MPA, 2000, the Exploration Period was divided into an Initial Exploration, and two (2) separate extension periods, totalling seven (7) years	The Exploration period remains for not more than seven years,[23] but this time divided into an initial exploration period and up to three extension periods within the total exploration period in line with Section 21(2) of the *Petroleum Act*, 2016.
Under the MPA, 2000, the manner of relinquishment could vary from agreement to agreement.	The MPA, 2019, references Section 22 of the *Petroleum Act*, 2016 titled *Relinquishment of Contract Area.* Unlike the MPA, 2000, there are fixed percentage minimums that must be relinquished at specified periods in time. This brings more guidance and certainty in the way and manner in which relinquishment is done, reduces the ad hoc nature that emanates from the absence of clear parameters, and provides some level of uniformity amongst the petroleum agreements entered into. Section 22(6) however states that the Minister may in exceptional cases and in consultation with the Commission determine that the area to be relinquished should be smaller than as set out in the Act.
Article 6 of the MPA, 2000 was titled *Joint Management Committee* and dealt with matters in relation to the JMC.	Article 6, titled *Joint Operating Agreement*, is a new introduction in the MPA, 2019. GNPC was not a party to the Joint Operating Agreements. The *Petroleum Exploration and Production (General) Regulations* sought to vest more power in GNPC by mandatorily making it a party to all Joint Operating Agreements and mandating that decisions to be carried be unanimous. In essence, the State was dictating the contractual arrangements in respect of what was essentially a private arrangement between

[19] See T. Stephens, "The Modified Model Petroleum Agreement, 2019: Developments in Ghana's Contractual Framework" Chamber of Bulk Oil Distributors (CBOD) Annual Report, 2020

[20] Article 1.63

[21] Article 1.46

[22] Section 10(14) – *Petroleum Agreement*

[23] Section 21(1)

	contractor parties. As such, this was repealed by the *Petroleum (General)(Amendment) Regulations,* 2019 (LI 2390), doing away with these provisions and also mandating GNPC only becoming a party where it acquired a commercial interest."[24]
Under the MPA, 2000, a Contractor was required to notify the Minister and GNPC in writing as soon as possible after any discovery was made, but in any event, not later than 30 days after the making of the discovery.	Under the MPA, 2019, this time period has been abridged to forty-eight hours, in line with Section 25(2)(a) of the *Petroleum Act*, 2016, titled *Notification of Petroleum Discovery and Appraisal*.
Under the MPA, 2000, the Article titled, *Measurement and Pricing of Petroleum* provided that in the event that upon the testing or examination of appliances used for the measurement of crude, any was found to be defective, the Contractor was to take immediate steps to repair or replace such appliance;[25] and such error was deemed to have existed for three (3) months or since the date of the last examination and testing, whichever occurred more recently.	The MPA, 2019, makes reference to Section 37 of the *Petroleum Act*, 2016, titled *Measurement of Petroleum Obtained.* The *Petroleum Act,* 2016, makes a change to the date for ascertaining whether the appliance is deemed to have been defective. It stipulates that where a measuring method or calibrated equipment is discovered to be incorrect, "that method or calibrated equipment is considered to have existed in that condition during a period that is represented by half of the period from the last occasion where the method or equipment was tested or examined to the date when the method or equipment was found to be incorrect."[26]
The MPA, 2000 stated thus: "No tax, duty, fee or other impost shall be imposed by the State or any political subdivision on Contractor, its Subcontractors or its Affiliates in respect of activities related to Petroleum Operations and to the sale and export of Petroleum other than as provided in this Article 12. Contractor shall be subject to the following…"[27] As such, this provision was made a one-stop fiscal enclave.	Under the MPA, 2019, Article 13.1 states that the tax, duty, fees and other imposts imposed by the State or any entity or any political sub-division on the Contractor, its sub-contractor or affiliates in respect of petroleum operations and sale and export of petroleum "shall include but not be limited to the following…"
Foreign Exchange Transactions Under the MPA, 2000, a Contractor was entitled to "receive, remit, keep and utilise freely abroad all the foreign currency obtained from the sales of the petroleum…"	**Foreign Exchange Transactions** Under the MPA, 2019, the Contractor, is entitled to receive, remit (with notice to the Bank of Ghana), keep and utilise freely abroad all the foreign currency obtained from the sales of the petroleum assigned to it or purchased under the Agreement, or from transfers, as well as its own capital, receipts from loans and in general, all assets acquired abroad.[28]
Under the MPA, 2000, the Minister and or GNPC had the right of access as well as the right to inspect all buildings and installations	The MPA, 2019, in accordance with the *Petroleum Commission Act*, 2011 (Act 821)[30]

[24] Regulation 4 – Petroleum (Exploration and Production)(General)(Amendment) Regulations, 2019 (L.I. 2390)
[25] Article 11.4(a)
[26] Section 37(7) – Measurement of Petroleum Obtained
[27] Article 12.1 – Taxation and Other Imposts
[28] Article 14.2
[30] Section 3 – Functions of the Commission; Petroleum Commission Act, 2011 (Act 821). "The Commission shall; (e) Monitor petroleum activities and carry out the necessary inspection and audit related to the activities."

used by the Contractor relating to petroleum operations.[29]	and the *Petroleum Act,* 2016,[31] stipulates that it is the Commission that is explicitly mandated to have access to all sites and offices of the Operator and given the right to inspect all buildings and installations used by the Operator.[32]
Accounting and Auditing Under the MPA, 2000, GNPC was the primary entity to whom accounting and auditing functions were vested.	Under the MPA, 2019, the Commission as regulator plays a role in auditing and accounting, even though GNPC still retains auditing and accounting functions from its practical role as a party to every Joint Management Committee, and being party at first hand, to all operations and costs incurred.
The MPA, 2000 provided for the acquisition of physical assets of the Contractor once the full cost thereof had been recovered by the Contractor, or the Agreement had been terminated, and the Contractor had not disposed of such assets prior to termination.	Under the MPA, 2019, title to, and control of physical assets used in petroleum operations by the Contractor is subject to the *Petroleum Act,* 2016 and the *Petroleum (General) Regulations*.[33] Unlike the MPA, 2000 where the opportunity to acquire title to assets crystallised after either full costs had been recovered by the Contractor or the Agreement terminated, the *Petroleum Act*, 2016 provides that where at least fifty per cent (50%) of the cost of a physical asset has been recovered in accordance with the terms of an existing petroleum agreement, GNPC can have the title of that asset transferred to it by the Contractor on payment by GNPC of the unrecovered portion of the asset.
Under the MPA, 2000,[34] flowing from the *Petroleum Act*, 1984,[35] the duration of a petroleum agreement was for a term of thirty (30) years though it could be terminated at an earlier time provided for in the Agreement or in the event that no commercial discovery was made.	Under the *Petroleum Act,* 2016, a petroleum agreement must be for a term not exceeding twenty-five (25) years.[36] This reduction of the period in the agreements is to the advantage of the State as a Field will have more reserves and be further away from being exhausted after twenty-five as opposed to thirty years.
Under the MPA, 2000, the forum when a dispute arose between parties and had to go to arbitration was not spelt out and varied from agreement to agreement.	Under the MPA, 2019, it is settled that in the event of a dispute between the parties, the matter will be settled exclusively "under the auspices of the International Chamber of Commerce (the 'ICC') using the Rules of Arbitration of the International Chamber of Commerce (the 'ICC Rules') in force on the date on which the proceedings were instituted."[37]
Under the MPA, 2000, it was stipulated under Article 25, titled *Assignment,* that the	The wording under the MPA, 2019, is slightly different. It stipulates that no interest in the

[29] Article 17.1
[31] Section 51 – Supervision and Inspection
[32] Article 16.1
[33] Section 19 – Transfer of Assets to the Corporation; Regulation 33 – Title to and Control of Physical Assets
[34] Article 23 – Term and Termination
[35] Section 12 – Period of Validity of Petroleum Agreement
[36] Article 21.1 – Term and Termination; Section 14 - Duration
[37] Ibid (n 36)

Agreement could not be assigned without the "…prior written consent of GNPC, and the Minister…"[38]	Agreement can be assigned without the "…prior written [consent of the Corporation and] the approval of the Minister." The Minister is not bound by GNPC's refusal of consent and can go ahead to unilaterally grant approval if he so wishes. Section 16 of the *Petroleum Act*, 2016,[39] does not make GNPC's consent a *sine qua non*.
Under the MPA, 2000, GNPC did not have a pre-emption right to purchase the interest of a party in the consortium seeking to sell its interest.	That right of pre-emption was incorporated in later petroleum agreements, which manifests as Section 18 of the *Petroleum Act*, 2016, aptly titled, *Pre-emption.*
Stabilisation Clauses In respect of the governing law, the earlier petroleum agreements used the phraseology "governed by and construed with the laws of the Republic of Ghana consistent with such rules of international law as may be applicable, including rules and principles as have been applied by international tribunals."[40]	The later agreements based on modifications in the MPA, 2000, put it thus; "…governed by and construed in accordance with the laws of the Republic of Ghana in effect from time to time."[41]
Additions	
Work Programme and Budget This is a new addition to the MPA, 2019 as a separate Article. It takes into cognisance the formation of the Petroleum Commission and the technocratic and regulatory roles of the institution.	
Rights and Obligations of Contractor and the Corporation The ambit of this Article has been expanded to include GNPC. The MPA, 2000, limited it to the "Rights and Obligations of Contractor." GNPC has been introduced under this Article though its obligations were largely captured elsewhere under the MPA, 2000	

Source: Authors' construct

Ghana has awarded eighteen (18) petroleum agreements/contracts (PAs) since 2004 covering its offshore basins, namely the Accra-Keta cretaceous basin (Eastern), Saltpond (Central) palaeozoic basin and Tano-Cape Three Points cretaceous basin (Western) — Figure 6 and Figure 7. Between July 2004 and July 2016, seventeen (17) new PAs were signed under the *Petroleum (Exploration and Production) Act, 1984 (PNDCL 84)* while another one (1) was signed under the new *Petroleum (Exploration and Production) Ac*t, 2016 (Act 919) in January 2018 (Table 4). Ghana entered into an agreement with Aker Energy and Chemu, an indigenous company. However, the agreement was terminated in 2008 because it did not comply with Section 23(15) of the Petroleum Act, 1984, which mandated that it be the locally incorporated company that should be the signatory to the petroleum agreement. Between 2013-2015, many relatively unknown small oil companies were awarded petroleum licenses with insufficient due diligence done.[42] Also, in 2019, Aker was able to successfully cause

[38] Article 25.1
[39] Section 16 - *Assignment*
[40] Article 26.1 - *Miscellaneous*
[41] Article 24.1 - *Miscellaneous*
[42] Stephens, T. K., & Acheampong, T. (2021). Does the politics matter? Legal and political economy analysis of contracting decisions in Ghana's upstream oil and gas industry. *The Journal of World Energy Law & Business*.

amendments to be made to its petroleum agreement in respect of Deepwater Tano/Cape Three Points Contract Area on the basis that there was "the need to restore the Contractor to economic balance due to change in circumstances,"[43] based on the argument that new laws and regulations had affected the economic balance of the Agreement and secondly, the need to accelerate exploratory activities in line with the Ghana Government's aggressive exploration strategy. In June 2021, ExxonMobil relinquished the entirety of its stake in the Deepwater Cape Three Points Block, which it acquired earlier in January 2018[44] after fulfilling its contractual obligations, which was a blow to the Ghana government as *inter alia*, one of the terms of the contract was for GNPC to understudy ExxonMobil in order to build its capacity to become an Operator.

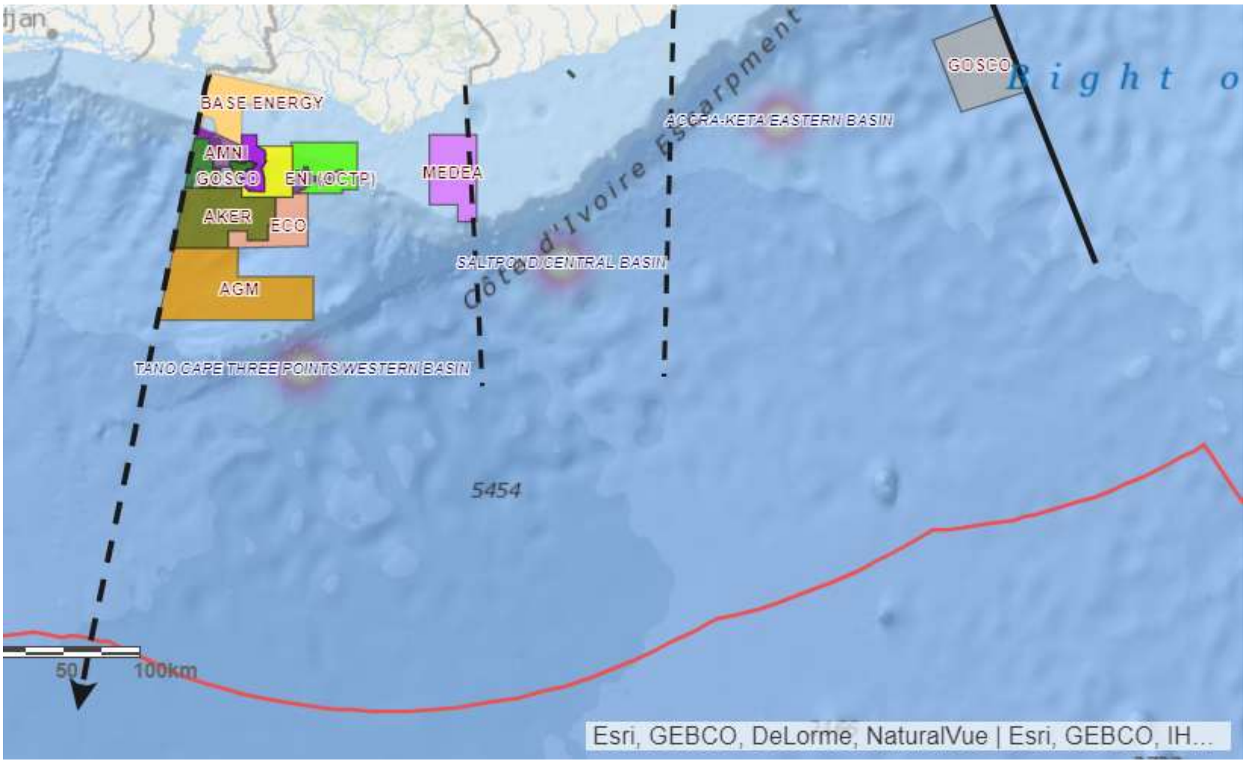

Figure 6: Ghana offshore activity map

Source: Ghana Petroleum Register <https://www.ghanapetroleumregister.com>

[43] Ibid (n 42), par 5

[44] See https://corporate.exxonmobil.com/News/Newsroom/News-releases/2018/0118_ExxonMobil-acquires-exploration-acreage-offshore-Ghana

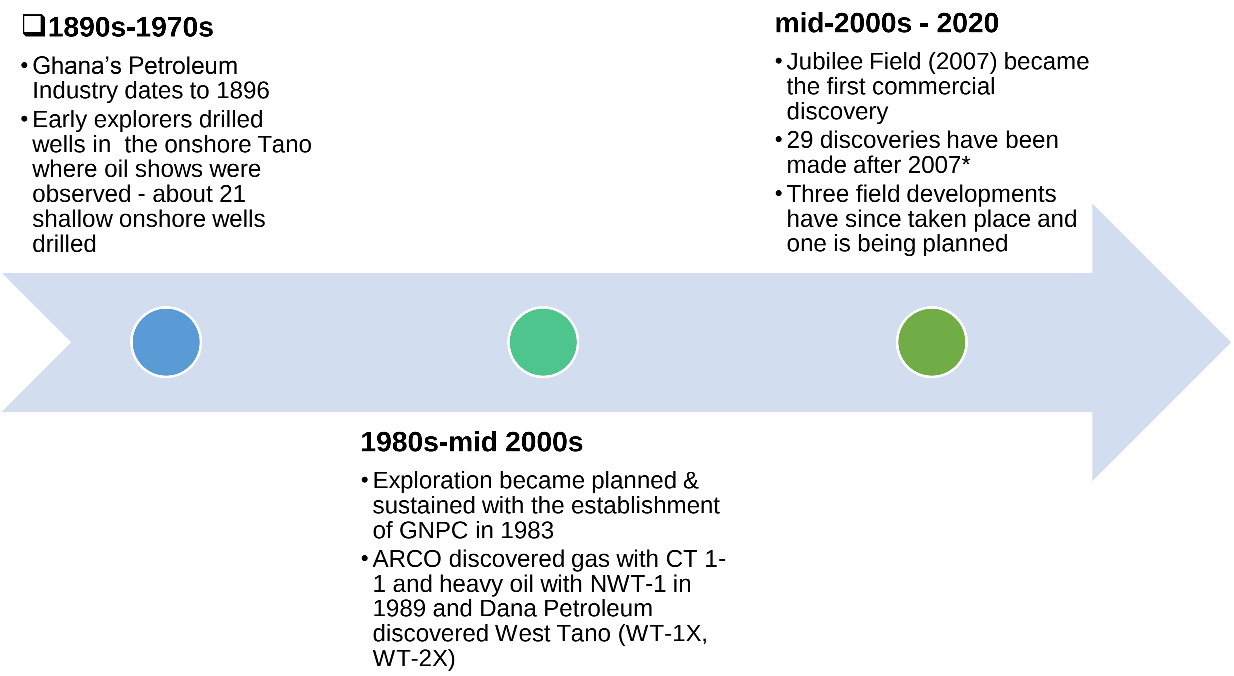

Figure 7: History of exploration in Ghana, 1980s-2020

Source: Authors' construct based on Petroleum Commission data[45]

Table 4: Summary of Ghana's petroleum agreements signed under the Petroleum Act, 1984 and the Petroleum Act, 2016

Agreement/Block	Equity Partners	Date signed
Petroleum Act, 1984		
1. West Cape Three Points (WCTP)	Tullow (Operator) 25.66%; Kosmos 30.02%; Anadarko 30.02%; GNPC 12.50%; Petro SA 1.80%	22-Jul-04
2. Deepwater Tano (DWT)	Tullow (Operator) 35.48%; Anadarko 24.0%; Kosmos Energy 24%, GNPC 14.0%; Petro SA Ghana 2.52%	10-Mar-06
3. Deepwater Tano-Cape Three Points (DTCTP)	Aker Energy Ghana Limited (Operator) 40%, Lukoil Overseas Ghana Limited 38%, FT Exploration and Production Limited 2%, GNPC 10%, GNPC Exploration and Production Company Limited (GNPC Explorco) 10%	19-Jul-06
4. Offshore Cape Three Points (OCTP)	ENI Ghana Exploration & Production Limited (44.44%); Vitol Upstream Ghana Limited (35.56%); GNPC (20%)	05-May-08
5. East Cape Three Points	Medea Development Limited (Operator) (36%), Cola Natural Resources Limited (54%), and GNPC (10%).	04-Dec-13
6. Central Tano	Amni International Petroleum Development Company Limited (Operator) (90%), GNPC (10%)	21-Mar-14
7. South Deepwater Tano	AGM Petroleum Ghana Limited; GNPC, Explorco	24-Jan-14
8. Shallow Water Cape Three Points	Sahara Energy Fields Ghana Limited (Operator) (85%); Sapholda E and P Limited (5%); GNPC 10%	18-Jul-14

[45] Recent discoveries include Akoma-1X [2019] in CTP Block 4 and Afina-1 [2019] in WCTP Block 2 but does not include Eban-1X [2021].

9. South West Saltpond	BRITTANIA-U Ghana (Operator) 76%, Hills Oil Marketing Company 4%, and GNPC 20%.	17-Jul-14
10. Offshore South-West Tano	GNPC (Operator) 12%, Heritage Exploration and Production Ghana Limited 39.60%, Blue Star Exploration Ghana Limited 39.60%, GNPC Explorco (8.8%)	18-Jul-14
11. Offshore Cape Three Points South	UB Resources Limited 70.47% (Operator), Houston Drilling Management Ghana Limited 12.18%, Royalgate Ghana 4.35%, GNPC 13%	18-Jul-14
12. East Keta Block	GNPC (Operator) 11%, Heritage Exploration and Production Company Limited 38.7%, Blue Star Exploration Ghana Limited 38.7%, GNPC Exploration and Production Company Limited (GNPC Explorco) 11.6%	18-Jul-14
13. Expanded Shallow Water Tano	Base Energy Limited (67.5%); GNPC EXPLORCO (22.5%); GNPC (10%)	23-Jan-15
14. Deepwater Cape Three Points West Offshore	Eco Atlantic Oil and Gas (Operator) 50.42%, A-Z Petroleum Products Ghana Limited 27.88%, Petrogulf Limited 4.35%, GNPC Exploration and Production Ghana Limited (GNPC Explorco) 4.35%, Ghana National Petroleum Corporation 13%	22-Mar-15
15. Onshore/Offshore Keta Delta Block	Swiss African Oil Company (Operator) 83%, Pet Volta Investments Ltd 5%, Ghana National Petroleum Corporation 12%	11-Mar-16
16. Cape Three Points Block 4	ENI Ghana Exploration and Production Limited (Operator) 42.47%, Vitol Upstream Tano Limited 33.98%, Woodfields Upstream Limited 9.56%, GNPC 10%, Explorco 4%.	14-Apr-16
17. West Cape Three Points Block 2	Springfield E & P Limited (new Discoveries -84%, Existing Discoveries 82%, Ghana National Petroleum Corporation (New Discoveries 11%, Existing Discoveries 8%), GNPC Exploration and Production Company Limited – GNPC Explorco (New Discoveries – 5%, Existing Discoveries – 10%	26-Jul-16
Petroleum Act 2016, Act (919)		
18. Deepwater Cape Three Points	ExxonMobil Exploration and Production Ghana (Deepwater) Limited (Operator) 80%, GOIL Offshore Ghana Limited 5%, Ghana National Petroleum Corporation 15%	18-Jan-18[46]

Source: Authors' construct based on relevant petroleum agreements published in the Ghana Petroleum Register <https://www.ghanapetroleumregister.com> as of 20 Feb 2022

2.4 The PRMA Act and related flows

The *Petroleum Revenue Management Act,* 2011 (Act 815) as amended by the *Petroleum Revenue Management (Amendment) Act*, 2015 (Act 893) was enacted to *"provide for the framework for the collection, allocation and management of petroleum revenue in a responsible, transparent, accountable and sustainable manner for the benefit of citizens*

[46] ExxonMobil announced relinquishment of its entire stake and resigned as Operator in June 2021.

in Ghana". Figure 8 shows the spending allocation of oil revenues under the PRMA, while Box 1 assesses the approaches adopted under the PRMA to mitigate various risks. The Act sets out a framework for the Management of the Funds thus:

[1] Funds from the industry are paid into a transitory fund known as the Petroleum Holding Fund.[47]

[2] The Fund is then distributed to several areas:

a. Allocation to the **National Oil Company, GNPC,** comes in two broad levels, Level A and Level B. The Level A allocation (equity financing) is for cash calls made on GNPC for Development and Production Costs and is charged on the portion of revenue attributable to Carried and Participating Interest (CAPI). The Level B allocation is charged on the remaining portion of the CAPI amount after deducting Level A, which is not to exceed 55%. Currently, Level A payment to GNPC is 30%.

b. The **Annual Budget Funding Amount (ABFA)** receives no more than 70% of the remainder plus royalty. Out of this 70% allocated to the ABFA, 70% of that ABFA amount is to be expended on public investment expenditure. A maximum of 25% allocated to public investment expenditure is to be allocated to the Ghana Infrastructure Investment Fund (GIIF), which was established under the *Ghana Infrastructure Investment Fund Act,* 2014 (Act 877),[48] for infrastructure development.[49] In addition, per the Supreme Court decision of *Kpodo and another v. Attorney General*[50] in 2019, the District Assemblies Common Fund was added to the recipients of the ABFA to receive 5%.

c. **Allocation to Ghana Petroleum Funds**, which receives not less than 30% of total receipts into PHF and net of NOC allocation.

   i. The **Ghana Stabilisation Fund** receives not more than 70% of the allocation to the Ghana Petroleum Funds.

   ii. The **Ghana Heritage Fund** receives not less than 30% of the allocation to the Ghana Petroleum Funds.

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[47] Section 2 – Establishment of Petroleum Holding Fund

[48] The Ghana Infrastructure Investment Fund (Amendment) Act, 2021 (Act 1063) amended Section 9 of the Ghana Infrastructure Investment Fund Act, 2014 (Act 877), repealing Section 9 of the Earmarked Funds Capping and Realignment Act, 2017(Act 947), allowing a resumption of allocation of ABFA to GIIF.

[49] Section 8 of PRMAA

[50] (J1/03/2018)[2019] GHASC 39 (12 June 2019); 1. Benjamin Komla Kpodo, MP 2. Richard Quashigah, MP v. The Attorney-General

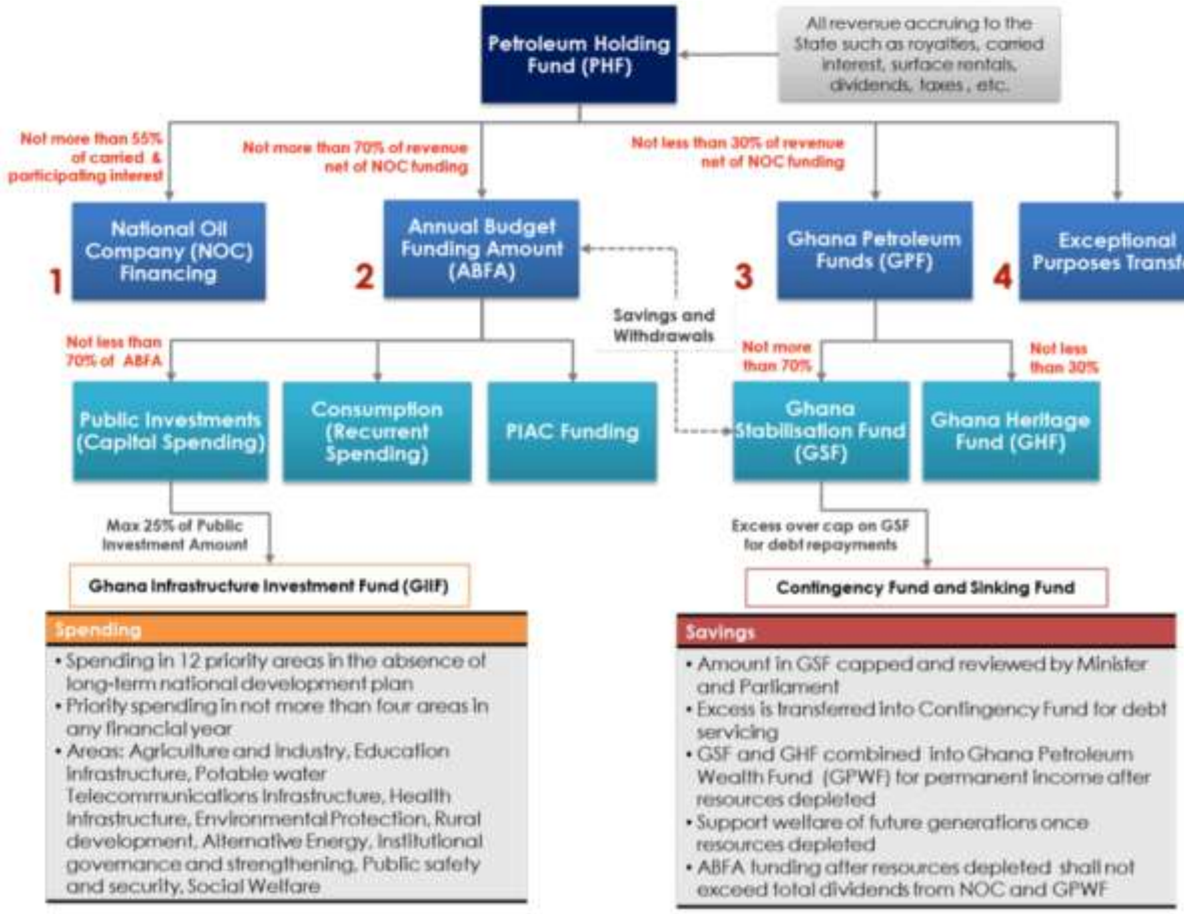

Figure 8: Spending allocation of oil revenues under the PRMA

Source: PIAC (2017)[51]

Box 1 - Ghana's preparations towards inherent risks associated with oil and gas sector

Various literature and international best practices have proven that majority of natural resource rich countries have failed to achieve their expected potential despite their resources. If not well managed, the inherent risks and negative impacts of resource abundance have led to worsening fiscal imbalances, political instability, and overall socioeconomic development. In this box, we assess the approaches that were adopted under the PRMA to mitigate various risks as detailed below.

Risk	Ghana's Approach to Mitigating Risk
Non-renewability: Oil and gas resources are finite and once extracted, it becomes exhaustible. Similarly, revenues from oil and gas is inherently exhaustible and hence underscores the need for its efficient utilization as well as ensure optimal and	The PRMA introduced an Inter-Generational Equity Fund (Ghana Heritage Fund) to save for future generation with the aim to deal with the risk of exhaustibility.

[51] PIAC (2017). Simplified Guide to Petroleum Revenue Management in Ghana. Available: https://www.piacghana.org/portal/files/downloads/simplified_guide_to_ghana's_petroleum.pdf

equitable outcomes for both current and future generation. Further, it usually requires payment for their special oil and gas industry taxes—for example, royalties and resource rent taxes— which depart from the regular tax system and are sometimes administered by non-tax departments.	
Price Volatility: Fluctuations in extractives commodities such as oil and gas present significant risks to the flow of resource rents which has direct impact on the flow of revenues to host countries. Resource-dependent government budgets are susceptible to large and unpredictable commodity price or production fluctuations, which are fairly common. This revenue volatility has two negative impacts on governments. First, it can lead to 'boom-bust' cycles whereby governments spend on legacy projects like airports and monuments when revenues are rising and then must make painful cuts when revenues decline. The result is poor public investment decisions and lack of long-term development planning. Second, improved creditworthiness when revenues are high can lead to over-borrowing, leading to debt crises when revenues decline, as in Mexico, Nigeria and Venezuela in the 1980s. These effects are also felt by the private sector, which can over-invest in boom times and then experience widespread bankruptcies during busts (NRGI Reader, 2016)	The PRMA established a Stabilisation Fund with the aim to reduce price fluctuations risks and thereby revenue volatility risks. The Stabilization Fund is intended to encourage savings in times of boom as well as help smoothen budget expenditure in times of bust.
Excessive, unsustainable public debt and spending (long-term): Since governments in resource-rich countries expect more income in the future, they start running large debts, even as they are receiving natural resource revenues as well. This is encouraged by the Dutch disease: as the exchange rate appreciates, interest payments on the debt become cheaper. In addition, the country's natural resources act as collateral leading to easier access to credit. However, when commodity production begins to fall, which is inevitable given that these are finite resources, a government may have less money with which to pay a more expensive debt.	Under the PRMA, the Petroleum Holding Fund is established to receive all petroleum revenues. To reduce the risk of excessive and unsustainable debt induced by oil and gas revenues, the PRMA prohibits the use of the PHF as credits to the government, public enterprises, private sector entities or any other person or entity. In addition, it prohibit the use of PHF as collateral for debts, guarantees, commitments or other liabilities of any entity.

Price Volatility: Fluctuations in extractives commodities such as oil and gas present significant risks to the flow of resource rents which has direct impact on the flow of revenues to host countries. Resource-dependent government budgets are susceptible to large and unpredictable commodity price or production fluctuations, which are fairly common. This revenue volatility has two negative impacts on governments. First, it can lead to 'boom-bust' cycles whereby governments spend on legacy projects like airports and monuments when revenues are rising and then must make painful cuts when revenues decline. The result is poor public investment decisions and lack of long-term development planning. Second, improved creditworthiness when revenues are high can lead to over-borrowing, leading to debt crises when revenues decline, as in Mexico, Nigeria and Venezuela in the 1980s. These effects are also felt by the private sector, which can over-invest in boom times and then experience widespread bankruptcies during busts (NRGI Reader, 2016)	The PRMA established a Stabilisation Fund with the aim to reduce price fluctuations risks and thereby revenue volatility risks. The Stabilization Fund is intended to encourage savings in times of boom as well as help smoothen budget expenditure in times of bust.
Weaker institutional development: Large single-point sources of revenue are relatively easily captured by powerful elites. As such, elites in natural resource rich countries are less likely to invest in productive enterprises like job-creating manufacturing industries, instead fighting over control of these resources, a process called 'rent-seeking'. In some cases, elites have also purposefully dismantled societal check to get access to these resources, a process nicknamed 'rent-seizing'. Some have argued that elite focus on rent-seeking and rent-seizing promotes corruption and is damaging to institutional development, thereby engendering weak states, low levels of public service provision and low growth.	Under the PRMA, there are clear institutional responsibilities with regards to the overall management of oil and gas revenues. Revenue collection and fiscal terms are clearly defined to avoid potential conflicts in mandates. In addition, the spending pf oil and gas revenues is guided by the PRMA in terms of predetermined processes for project selection and composition of spending in terms of capital expenditure and recurrent expenditure.

2.5 Some emerging issues after ten-plus years of oil and gas production in Ghana

Table 5 highlights some of the emerging issues after ten-plus years of oil and gas production in Ghana. This is based on the literature review and stakeholder interviews. The issues encompass local content and lack of linkages, energy transition, licensing challenges, stabilisation clauses, cost monitoring, among others.

Table 5: Some emerging issues on ten-plus years of oil and gas in Ghana

Area	Commentary
Local content and lack of linkages	• Ghana's upstream petroleum industry is still largely an enclave, with local industries largely limited to the non-technical aspects of the industry. • It has been suggested that the Local Content Regulations may have to factor in the requirements of the African Continental Free Trade Area (AfCFTA). • However, while this may be the case, some sectors such as the extractive sectors are strategic, and there is the need to harmonise AfCFTA with local needs, particularly in respect of people living in communities where the extractive activities take place.
Energy transition	• The emerging energy transition has globally affected the upstream petroleum industry, and Ghana is no exception. • There is a concerted effort on the part of the State to enhance the capacity of GNPC to be an Operator through the acquisition of an interest in the South Deepwater Tano (SDWT) Block (from AGM). While a final decision has not been taken on the acquisition of AGM's interest by GNPC, this begs asking whether it is worthwhile, or even advisable, for GNPC to pay so much public money for the chance to become an operator? • The challenge lies in attracting new investors to explore Ghana's acreage as there is a global effort to move away from fossil fuels to renewable energy.
Licensing challenges	• The energy transition poses real challenges to competitive bidding as the default system of licensing. Hence, there is a need for a fundamental re-look at how licensing is to be done in the future. • Ghana's migration to the competitive bidding system of licensing as the default system has not necessarily brought about the desired results.

	• Discretion given to government actors, particularly politicians, has consistently been the bane of Ghana's industry.[52] • The Petroleum Commission was marginalised in the last licensing round. There is the need for it to play a big enough role in the licensing process, particularly because of rent seeking and because this technocratic process demands a concerted and microscopic approach, which is lacking at the Ministry of Energy. • There have been no new fields brought onstream since 2016, and there must be new producing fields if the industry's tempo is to be maintained.
Stabilisation clauses	• In 2020, Aker Energy successfully triggered its equilibrium economic clause to cause amendments to its petroleum agreement in respect of the Deepwater Tano/Cape Three Points Contract Area, offshore Ghana. It claimed there had been material changes in the circumstances that prevailed at the time the petroleum agreement was executed. The question which arises is whether the reasons proffered for 'opening up' the Agreement indeed and, in fact, qualify as "material changes" which "affect the economic balance of the agreement?"[53] • It is also to be noted that Aker relied substantially on the Freezing Stabilisation Clause contained in the Agreement. Some companies have relied upon the freezing stabilisation clauses contained in their petroleum agreements and refused to comply with some impositions in later enactments, such as the deduction of one percent (1%) contract sum into the Local Content Fund established under the *Petroleum Act*, 2016.
Cost monitoring	**Petroleum Costs** • Under the 2000 MPA, in the event of a commercial discovery, when an IOC conducted operations beyond the minimum work commitment as contained in Article 4, it could deduct whatever further works from the revenue from the commercial discovery even if it made no further discovery. As such, the risk lay on the state. This did not inure to the State's benefit as it simply increased petroleum costs and reduced revenue. Thus, this has been modified, and in the event of a commercial discovery, any additional well drilled will need the approval of the Commission and where approval is not granted, the Contractor can still go ahead and do it but at its sole risk in the sense that, the State does not bear costs incurred in the event that there is no commercial discovery. So the risk is appropriately shifted to the IOC instead of the State. • Petroleum costs incurred with respect to the Contract area have no bearing on costs under any other contract area or Contractor's eligibility or otherwise for deductions in computing its net income from petroleum operations for income tax

[52] Stephens, T.K. & Acheampong, T. (2021). 'Does the Politics Matter? Legal and Political Economy Analysis of Contracting Decisions in Ghana's Upstream Oil and Gas Industry'. *The Journal of World Energy Law & Business*, jwab035, https://doi.org/10.1093/jwelb/jwab035

[53] Article 26.3

	purposes in any other contract area.[54] In a nutshell, costs are ring-fenced. • Ghana has gained further expertise in the industry and is better able to monitor petroleum costs. However, there are still challenges regarding its capacity to monitor petroleum costs efficiently, and the ability to do so is imperative as Corporate Income Tax is levied on profit and not on gross revenue.

Source: Authors' construct

2.5.1 *Successes and challenges of local content implementation*

In this section, we highlight how Ghana has used its local content and local participation policies to maximise economic and social benefits and the challenges thereof. The need for local content and participation has always been an inherent part of most industrial setups.[55] However, it is more poignant for the upstream oil and gas industry because the industry is often an enclave. Thus, there is a need to ensure deepening of linkages (consumption, fiscal and production linkages) to allow broader integration with the wider economy – for example, via manufacturing, agriculture and services (Figure 9). In essence, some of the key levers of local content policies, including among others:

- **Economic diversification and employment opportunities:** Leverage the extractive value chain to generate sustained and inclusive growth through economic diversification and employment opportunities.

- **Reduce aid dependence:** Generate opportunities for regional integration and international trade to gradually reduce country dependence on external aid.

However, the development of linkages does not happen in a vacuum, as this needs to be analysed within a country's broader industrial policy orientation and development framework (Figure 10). Thus, while industrial orientation indicates potential for local content and local participation policies, industrial policies themselves are subject to and involve multi-dimensional processes.

[54] Article 17.9

[55] Acheampong, T., Ashong, M., & Svanikier, V. C. (2016). An assessment of local-content policies in oil and gas producing countries. *The Journal of World Energy Law & Business*, *9*(4), 282-302.

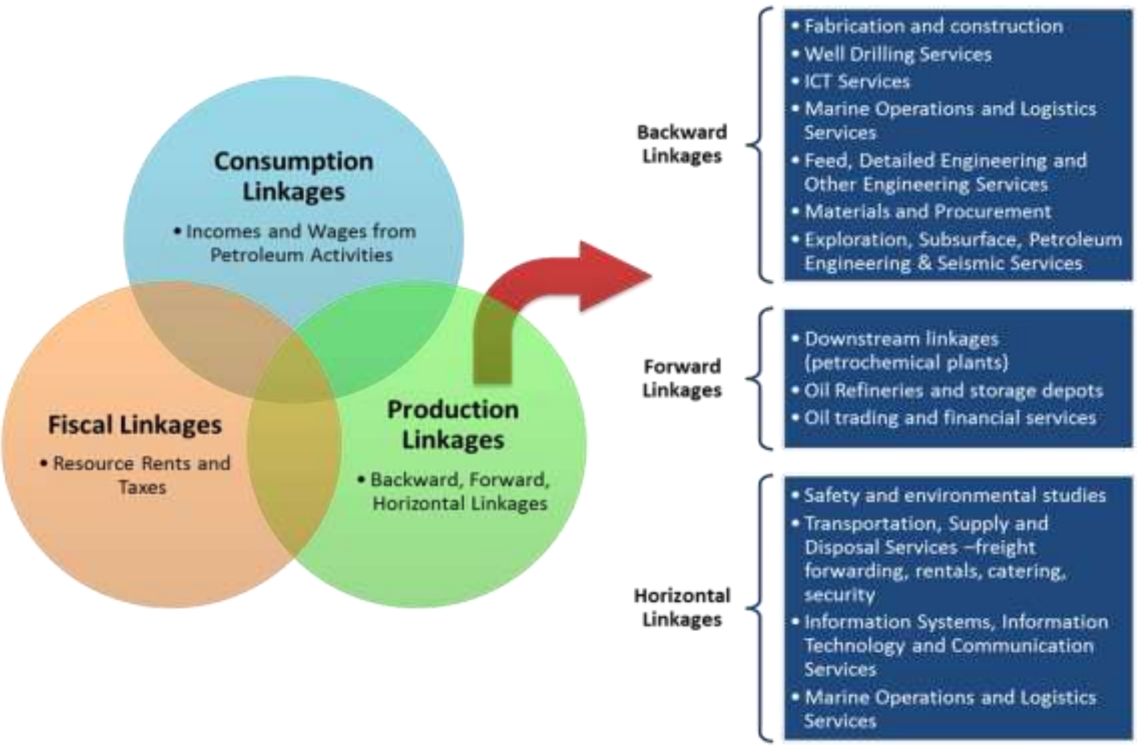

Figure 9: Local content and local participation linkages framework

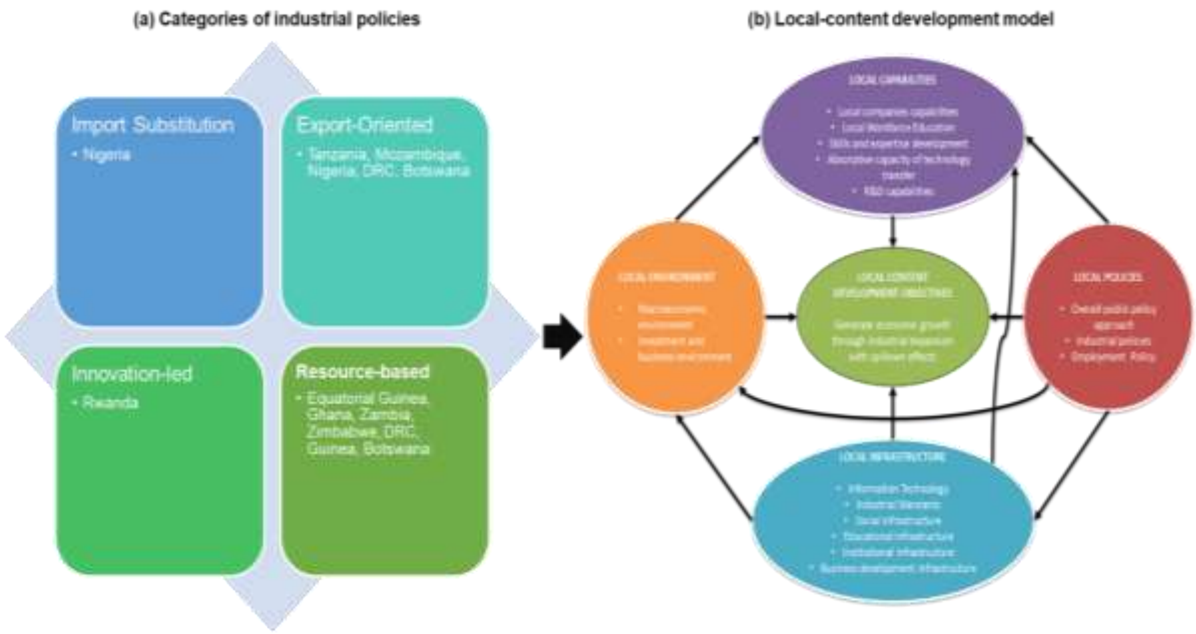

Figure 10: Categories of industrial policies and conceptual model for local content development

Source: (a) Adapted from Ramdoo (2015)[56], and (b) Kazzazi and Nouri (2012)[57]

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[56] Ramdoo, I. (2015). Resource-based industrialisation in Africa: Optimising linkages and value chains in the extractive sector. European Centre for Development Policy Management (ECDPM), Policy Discussion Paper No. 179

[57] Kazzazi, A., & Nouri, B. (2012). A conceptual model for local content development in petroleum industry. *Management Science Letters*, *2*(6), 2165-2174.

Ghana's local content and local participation policies in the upstream oil and gas industry can be traced back to the establishment of Ghana National Petroleum Corporation (GNPC) in 1983 by PNDCL 64 and the *Petroleum Exploration and Production Law, 1984* (PNDCL 84). While both of these legislations provided the legal framework for exploiting Ghana's petroleum resources, they also contained specific local content and local participation policies. This included, for example, the need for contractors to use Ghanaian goods and services, employ Ghanaian nationals and deepen technology transfer.[58] These provisions were given further impetus and translated into respective clauses in the Model Petroleum Agreement (MPA) and subsequent petroleum agreements signed between the State and various oil companies in the early 2000s. However, following the commercial discovery of oil and gas in 2007 and subsequent production in December 2010, there was the need to refine Ghana's legal and regulatory architecture further to optimise the value chain benefits. Hence, in 2011, the Petroleum Commission of Ghana was established by the Petroleum Commission Act, 2011 (Act 821) to regulate the upstream oil and gas industry. The Commission, by Act 821, was also tasked to implement local content and promote local participation in the oil and gas industry value chain. In furtherance of this ambition, the *Petroleum (Local Content and Local Participation) Regulations* 2013 (L.I. 2204) was passed in 2013 to promote the participation by Ghanaians at each level of the oil and gas industry value chain (Table 6 and 7).

Local content is defined in L.I. 2204 as *"the quantum or percentage of locally produced materials, personnel, financing, goods and services rendered in the petroleum industry value chain and which can be measured in monetary terms".*[59] The following pillars broadly underpin Ghana's local content and participation policy[60]:

- Procurement of goods and services/maximisation of the usage of Ghanaian goods and services
- Direct participation in the upstream oil and gas sector by Ghanaians (protection of Ghanaian interest or local participation equity shareholding)
- Direct employment and personnel training (increased employment of Ghanaian citizens)
- Technology transfer and capacity development programmes (research and development, and transfer of technology)

[58] See for example Section 12 of PNDCL 84
[59] Regulation 49 of L.I. 2204
[60] Suleman, S., & Zaato, J. J. (2021). Local content implementation and development in Ghana's upstream oil and gas sector for sustainable development: contemporary issues on policy management. *Discover Sustainability*, *2*(1), 1-15; Acheampong, T., Ashong, M., & Svanikier, V. C. (2016). An assessment of local-content policies in oil and gas producing countries. *The Journal of World Energy Law & Business*, *9*(4), 282-302.; Ablo, A. D. (2015). Local content and participation in Ghana's oil and gas industry: Can enterprise development make a difference?. *The Extractive Industries and Society*, *2*(2), 320-327.

Table 6: Summary of Ghana's local content and local participation provisions

Legal framework	Employment requirements	Procurement requirements	Ownership requirements	Reporting requirements & Penalties for non-compliance
YES	YES	YES	YES	YES
• *Petroleum (Exploration and Production) Act 2016 (Act 919)* • *Petroleum (Local Content and Local Participation) Regulations 2013*, (L.I. 2204) • *Relevant petroleum agreements*			• An IGC shall be given first preference in the grant of a petroleum agreement or a licence • Minimum 5% equity participation of an indigenous Ghanaian company (IGC) other than the GNPC to be qualified to enter into a petroleum agreement • Non-indigenous Ghanaian company that intends to provide goods or services in the petroleum sector shall incorporate a joint venture company with an IGC and afford that IGC equity participation of at least 10%	• Submit a plan before the commencement of petroleum activities to The Local Content Committee (LCC) specifying the role and responsibilities of IGC, the equity participation and strategy for technology transfer • Submission of quarterly forecasts, including purchase orders • Common Qualification System (CQS) as the sole system for the registration and pre-qualification of local content

Source: Authors' construct

Table 7: Local content targets in L.I. 2204

Item	Start (2013)	5 years (2018)	10 years (2023)
Goods and services	10%	50%	60%-90%
Recruitment and training			
a. Management Staff	30%	50%-60%	70%-80%
b. Technical Core Staff	20%	50%-60%	70%-80%
c. Other Staff	80%	90%	100%

Source: L.I. 2204

Together with its partners and other stakeholders, the government sought to put in place the necessary financing, training, and capacity building to deepen the value chain linkages. One of these initiatives was the Enterprise Development Centre (EDC), created in 2013 and initially funded by the Jubilee Partners (Tullow Ghana, Anadarko, Kosmos Energy, Petro SA and GNPC). The US$5 million initial funding to the EDC sought to enhance the capacity of Ghanaian SMEs to meet the exacting standards of the oil and gas industry over five years (2013 to 2018). Furthermore, in November 2017, the new ruling administration launched the Accelerated Oil and Gas Capacity Programme (AOGCP)[61] to address constraints preventing Ghanaian nationals and businesses from fully participating in the oil and gas industry, such as the lack of financial and human resource/technical capacity. Running five years from 2018 to 2022, the AOGCP focusses on four thematic areas to enhance local capacity and participation in the upstream sector, namely:

- Technical, vocational, apprenticeship development and utilisation
- Capacity development of educational institutions
- Capacity building for small and medium enterprises (SMEs)
- Capacity building for public institutions

However, the results of these efforts have been mixed (Tables 8 and 9). While Ghana has made commendable efforts in terms of employment, with a substantial majority of those working in the industry being Ghanaian nationals, **the linkages effect have been minimal. The EDC, for example, could not be sustained beyond 2018 due to significant funding constraints and political interference**.[62] Nevertheless, the EDC did assist several SMEs and built a database of pre-qualified local companies. The few ones that successfully secured contracts with IOCs and major service companies were in freight forwarding services, fabric maintenance and sandblasting, vessel hire and pipeline inspection service, among others. Key in-country fabrication works carried out in Ghana for the industry over the period have included module stools, jumpers, suction

[61] https://thebftonline.com/2017/business/energy/oil-and-gas-capacity-programme-to-train-1000-annually/

[62] Ayanoore, I. (2021). The factors eroding enterprise development in Ghana's oil and gas sector: A critical reflection on why the enterprise development centre failed. *The Extractive Industries and Society*, 100906.; Ablo, A. D. (2020). Enterprise development? Local content, corporate social responsibility and disjunctive linkages in Ghana’s oil and gas industry. *The Extractive Industries and Society*, *7*(2), 321-327.; Ablo, A. D. (2015). Local content and participation in Ghana's oil and gas industry: Can enterprise development make a difference?. *The Extractive Industries and Society*, *2*(2), 320-327.

piles, sleepers, riser base, riser protection framework, manifolds (gas export manifold), mud mats and sealines.[63]

Furthermore, recent empirical evidence shows very little impact of the oil and gas industry on other sectors of the economy, via horizontal, backward and forward linkages not in manufacturing and much less agriculture. Suleman and Zaato (2021:p.12) poignantly note as follows:

> *"IGCs have low to moderate capacity to take up opportunities in the core technical areas where MOCs tend to spend more; these include well-drilling services, Front End Engineering and Design (FEED) services, detailed engineering, and fabrication, among other services. Many local companies tend to focus on the non-technical areas of transportation, supply, and disposal, environmental health and safety, IT, and communications."*

On forward linkages, they also note that:

> *"There could be enormous benefits from it when crude oil is supplied through the Domestic Supply Obligation (DMO) to be refined locally for local consumption and use in petrochemical industries".*

Various industry stakeholders have also raised concerns that the **focus on equity participation and excessive political interference has encouraged the phenomenon of *'fronting'*** whereby foreign companies are put under pressure to form joint ventures with preferred local political elites but who often lack the necessary experience and capacity.[64] The issue of fronting is captured in this stakeholder remark:

> *"The companies we bring in are largely foreign; the expertise is also foreign. The money is foreign. There isn't any transfer of technology; some of the local companies that play are all exploitative companies that are used by politicians to just ride on the fact that they know the people in power to get contracts."*

Some of the other identified[65] major constraints to the growth of the local supply chain, which need to be systematically addressed, include:

- Access to finance and business information
- Stringent technical and quality standards
- Lack of local capacity and high costs of doing business

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[63] See https://www.petrocom.gov.gh/local-content/

[64] Asiago, B. C. (2021). The Inevitability of Legal Flexibility over Certainty-the Case of Local Content Requirements in the Upstream Petroleum Sectors. *Oil, Gas & Energy Law*, *19*(4); Ovadia, J.S., 2016. Local content policies and petro-development in Sub-Saharan Africa: A comparative analysis. *Resources Policy*, *49*, pp.20-30.

[65] IFC (2018). Estimating the Effects of the Development of the Oil and Gas Sector on Growth and Jobs in Ghana (2015-30): A Modelling and Value Chain Analysis. Available at: https://www.commdev.org/wp-content/uploads/pdf/publications/Estimating-OG-Effects-Ghana-Rev.-7-06-17-2018.pdf

- Weaknesses of current industrial policies
- Small size of the domestic oil and gas market.

Table 8: In-country spending of petroleum operations in Ghana, 2011-2020

Year	Foreign companies	Indigenous companies	Joint Ventures (JVs)	Total
	US$ million			
2011	8.83	-	-	8.83
2012	-	29.49	5.00	34.49
2013	2,119.40	15.33	-	2,134.73
2014	10.87	355.15	3,718.50	4,084.52
2015	305.31	55.43	390.34	751.07
2016	124.63	481.42	895.50	1,501.55
2017	28.66	147.05	411.17	586.87
2018	7.75	79.76	219.84	307.34
2019	15.52	101.80	371.21	488.52
2020	7.93	17.87	50.52	76.32
Total	**2,628.89**	**1,283.28**	**6,062.07**	**9,974.24**
Total (%)	**26.36%**	**12.87%**	**60.78%**	**100.00%**

Source: Ablo & Otchere-Darko (2022: p.9)[66]

Table 9: Employment trend in Ghana's oil and gas industry (2017 - 2019)

Year	Area	Local	Expatriate	Total
2019	Management	602	119	711
	Core technical	2,059	655	2,714
	Others	2,463	52	2,515
	Total	**5,124**	**826**	**5,950**
2018	Management	443	202	645
	Core technical	1,824	719	2,543
	Others	1,791	100	1,891
	Total	**4,058**	**1,021**	**5,079**
2017	Management	386	69	455
	Core technical	1,025	350	1,375
	Others	1,272	37	1,309
	Total	**2,683**	**456**	**3,139**

Source: Ablo & Otchere-Darko (2022: p.9)[67]

[66] Ablo, D.A., & Octhere-Darko, W. (2022). Local Content and Local Participation in the Oil and Gas Industry: Has Ghana Gotten It Right? In: Acheampong, T and Stephen TK. (eds) *Petroleum Resource Management in Africa: Examining the Lessons from Ten Years of Oil and Gas Production in Ghana.* Palgrave MacMillan
[67] Ablo, D.A., & Octhere-Darko, W. (2022). Local Content and Local Participation in the Oil and Gas Industry: Has Ghana Gotten It Right? In: Acheampong, T and Stephen TK. (eds) *Petroleum Resource Management in Africa: Examining the Lessons from Ten Years of Oil and Gas Production in Ghana.* Palgrave MacMillan

2.6 Conclusion

Ghana has, as of 2021, put in the necessary legal framework to govern its oil industry even though there remains some still being worked on, such as the Decommissioning Regulations. Issues in recent times have not been due to an absence of legislation or imperfections in the law but the will to implement the laws to the letter and the practical implementation thereof.

Ghana's main institutional framework, which previously comprised GNPC and the Ministry of Energy, has been expanded to include the Petroleum Commission and Ghana National Gas Company. In addition, other actors also play important roles, such as the Environmental Protection Agency (EPA) regarding Health, Safety and Environmental (HSE) matters and PIAC in respect of petroleum revenue management.

The *Petroleum Revenue Management Act*, 2011 (Act 815) mandates how petroleum revenue should be managed and distributed. Per the Supreme Court decision of *Kpodo and another v. Attorney General*[68] in 2019, the District Assemblies Common Fund has been added to the Annual Budget Funding Amount recipients to receive 5%.

Ghana's 2000 Model Petroleum Agreement has been modified over time and culminated in the modified/updated 2019 Model Petroleum Agreement. The latter petroleum agreements do not contain freezing stabilisation clauses, unlike the earlier ones.

The energy transition has caused a fundamental re-think of how things are done in the industry, including how licensing is done. The African Continental Free Trade Area (AfCFTA) has also necessitated the need to look at local content no longer exclusively at the local level but at the Regional but bearing in mind that the extractive industry has linkages to local communities that necessitate certain sensitivities that require that AfCFTA not be applied blindly.

The country has made plodding but conscious efforts to try and increase the revenue that accrues to the State by making changes in legislation to control petroleum costs claimed by the IOCs, statutorily increasing its Carried Interest stake, contractually preventing the petroleum agreement from being a fiscal enclave in respect of taxes and imposts that the State can levy, putting in a more structured and deliberate system in respect of the measurement of petroleum obtained, reducing the term of the petroleum agreements and by doing so potentially increasing its revenue, moving away from the use of freezing stabilisation clauses, among others.

[68] (J1/03/2018)[2019] GHASC 39 (12 June 2019); 1. Benjamin Komla Kpodo, MP 2. Richard Quashigah, MP v. The Attorney-General

3 Hydrocarbon Accounting: Petroleum Production and Revenue Inflows

This section examines

- Annual production and liftings reconciliations from Ghana's producing fields, namely the Jubilee, Tweneboa-Enyenra-Ntomme (TEN) and Sankofa-Gye Nyame (SGN) fields from December 2010 to the end of 2020
- Yearly total revenues by product stream, such as stabilised crude oil, raw gas, condensates from Ghana's producing fields from December 2010 to the end of 2020
- Yearly total revenues by type, such as royalties, corporate income tax, additional oil entitlement, carried and participating interest, surface rentals from the producing fields from December 2010 to June 2021

As highlighted earlier in **Section 2.3,** Ghana has signed eighteen (18) petroleum agreements with various international and local oil companies since the early 2000s. Of these, there are three (3) producing fields, namely: Jubilee, Tweneboa-Enyenra-Ntomme (TEN) and Sankofa-Gye Nyame (SGN) Fields. Various other discoveries such as the Pecan field (operated by Aker Energy Ghana), Nyankom (operated by AGM), Block 4 (operated by Eni), and Afina (operated by Springfield) have not as yet resulted in commercial production. There are, however, plans to bring a number of these fields to production by the mid-2020s.[69] Available information also indicates that several petroleum agreements have limited or no activity as operators have failed to undertake their work programme commitments. Figure 11 shows a high-level summary of the production trends from the three producing fields.

[69] See Section 7 for an outlook of production and production up to 2040

Figure 11: Ghana's producing fields

<table>
<tr><th>Jubilee</th><th>TEN</th><th>SGN</th></tr>
<tr><td>
</td><td>
</td><td>
</td></tr>
<tr><td>• Recoverable reserves: 649 mmbbl and 746 Bcf
• Production from inception to Sept. 2021: 322 mmbbl and 516 Bcf.
• Total Gas export: 171 Bcf (September 2021)
• Average daily oil production in 2021: 73Kbopd
• Average daily gas export in 2021: 192 mmscfd</td><td>• Recoverable reserves: 245 mmbbl and 353 Bcf
• Production from inception to Sept. 2021: 99 mmbbl and 228 Bcf.
• Total Gas export: 17 Bcf (September 2021)
• Average daily oil production in 2021: 35 Kbopd
• Average daily gas production in 2021: 176 mmscfd</td><td>• Recoverable reserves: 175 mmbbl of oil & condensate and 1.13 Tcf of non-associated gas
• Production from inception to Sept. 2021: 64 mmbbl, 135 Bcf associated gas, and 171 BSCF NAG
• Total Gas export: 142 Bcf (September 2021)
• Average daily production in 2021: 44Kbopd
• Average daily gas export: 176 mmscfd of non-associated gas.</td></tr>
</table>

Source: Authors' construct based on Petroleum Commission, PIAC and GNPC data.

3.1 Annual production trends

Figure 12 shows the production output from Jubilee, Tweneboa-Enyenra-Ntomme (TEN) and Sankofa-Gye Nyame (SGN). As can be observed, **Ghana's crude oil output has increased from 3,236 barrels of oil equivalent per day (bopd) with first oil in December 2010 to 183,361 bopd as of December 2020. This represents an average production of 113,081 bopd and a compounded annual growth rate (CAGR) of 44% over the period.** Production for the first five years (2010-2015) came solely from the Jubilee field, followed then by the TEN Field in 2016 and subsequently the SGN field in 2017. Despite oil production commencing in December 2010, it was not until November 2014 (another four years down the line) that gas exports commenced from the Jubilee Field. This was because the processing infrastructure to evacuate the gas for export was not yet completed.[70] Since 2014**, total gas production, comprising associated and non-associated gas, has grown by 23% CAGR from 153 million standard cubic feet per day (mmscfd) to 652 mmscfd**. Whereas all of the gas production from 2010 to 2015

[70] See Section 3.1.1 for more details on the Jubilee gas infrastructure issues

came from the Jubilee field, the production landscape changed in 2016 with new fields coming online. Thus, whereas the Jubilee field (associated gas) accounted for 57% of all gas produced in 2017, this had dwindled to 27% by the end of 2020 (Figure 13). Instead, the SGN Field accounted for 49% of all gas produced in 2020, broken further into 19% associated gas and 30% non-associated. Jubilee follows this at 27% and TEN (associated gas) at 25%.

Overall, four trends can be observed from the oil production data. Firstly, production from the Jubilee Field started declining in 2016 from a peak of 102,498 bopd in 2015. Secondly, production from TEN started declining in 2019 from a peak of 64,541 bopd in 2018. Thirdly, SGN production is also forecast to decline in 2021 from a peak of 51,232 bopd in 2020. Cumulatively, total production from **Ghana's three fields peaked in 2020. This peak is forecast to last for at least three years, after which production will continuously decline if nothing is done by way of new in-fill developments on these existing fields or new fields coming on-stream** – Figure 14. The primary reasons[71] for the decline in overall production over the past few years include:

- Technical challenges such as poor well performance resulting in production losses, for example, from the Jubilee and TEN Fields
- Delayed commissioning of gas processing and export infrastructure (gas management challenges)
- Stalled field developments as no new field has gone into production since 2017 despite the operators of some fields hitherto publicly announcing new production
- Curtailment of investments for new exploration and developments due to the oil price slump (2014-2017; and 2020-2021), the COVID-19 pandemic and the energy transition

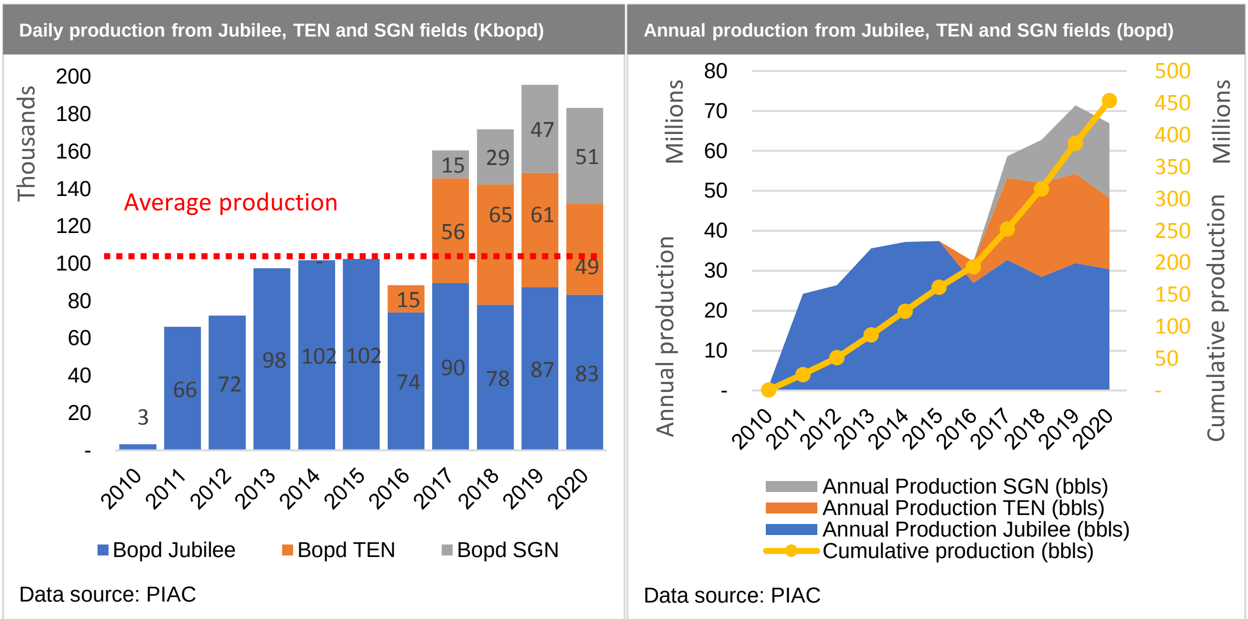

Figure 12: Production from the Jubilee, TEN and SGN Fields (bopd)

[71] The next section undertakes a deep-dive into the factors accounting for these production trends for the respective fields.

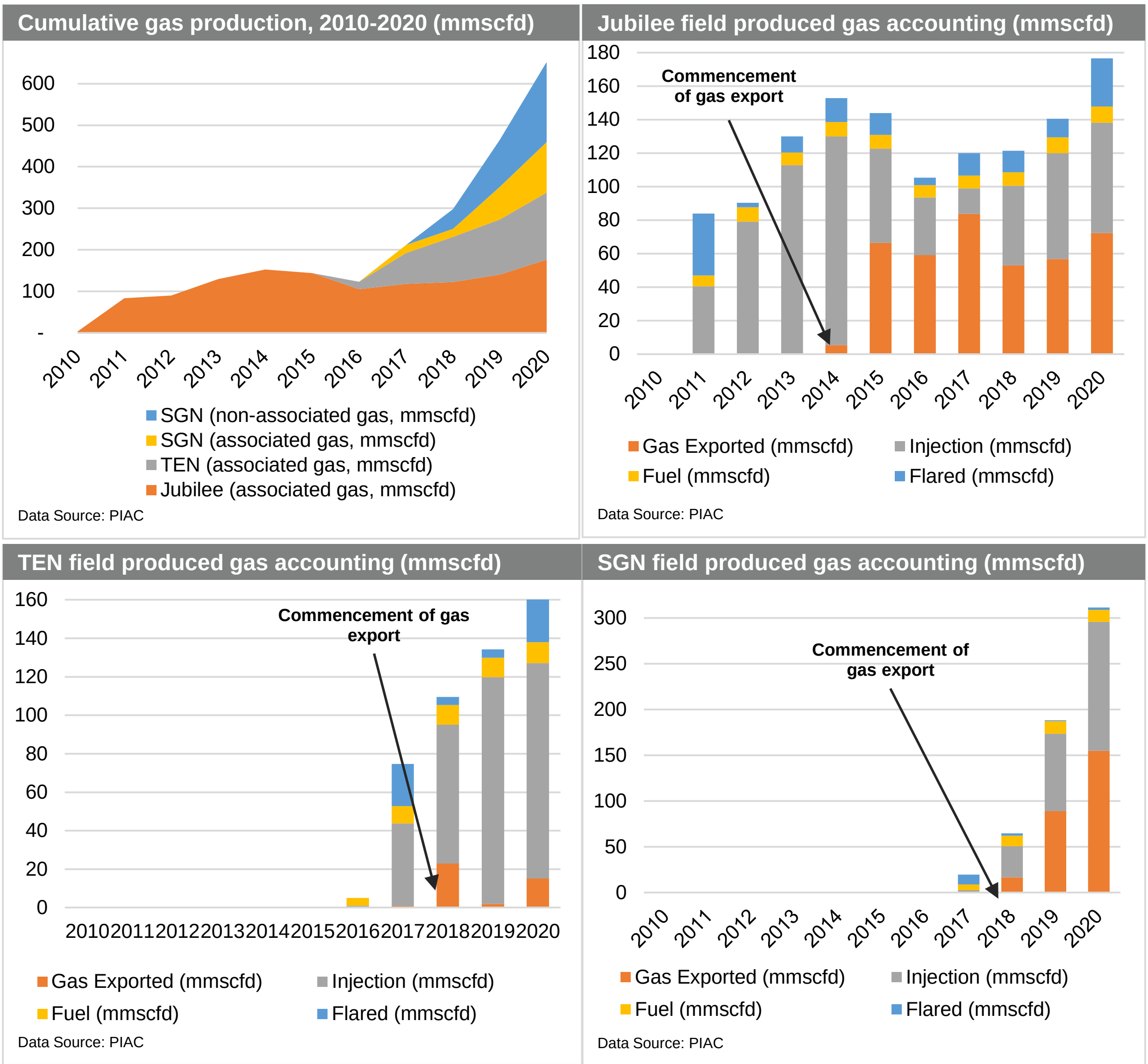

Figure 13: Gas production shares, 2010-2020

Figure 14: Ghana oil production decline in the absence of interventions

Source: GNPC (2021; p.15)[72]

3.1.1 *Jubilee*

The Jubilee Field was discovered in 2007 by a consortium of international oil companies (IOCs) comprising Tullow Ghana Limited, Kosmos Energy Ghana, Anadarko Petroleum Corporation, and Sabre Oil and Gas Holdings Limited. The local partner in the field included the E.O. Group and the Ghana National Petroleum Corporation (GNPC), the national oil company. The Jubilee Field is estimated to have 618 million barrels (mmbbls) of recoverable reserves and 505 billion standard cubic feet (Bcf) of natural gas.[73] Jubilee is a world-class oilfieldwith excellent reservoir properties such as high porosity and good reservoir connectivity.[74] This view is shared by a respondent, who remarked:

"In terms of the asset itself, Jubilee field is one of the best fields that you can have in terms of reservoir qualities and reserves."

Following a fast-tracked development and production programme lasting approximately three years, commercial production started in December 2010. However, compared to the industry standard of five to seven years[75], this rushed approach to developing the field meant that certain decisions came back to bite only a few years into production. These can be classified into (1) sub-surface and (2) above-surface challenges. The sub-surface issues with the Jubilee Field included reservoir challenges and poor well performance leading to production losses, while the above-surface issues included FPSO reliability challenges and delayed gas processing infrastructure forcing re-injection of gas back into the reservoir. The extent of the rushed approach to developing the field is captured by a respondent who remarked:

"You know, Jubilee was a rushed development. I mean, we found oil, and we were in a rush to produce oil. So, Jubilee was rushed, and I think that is a fact known to almost everybody in the industry. And in doing so, some technical mistakes were made. And then I think we are currently bearing the consequences of those challenges or mistakes that were made I mean."

This position is generally corroborated by several other stakeholders, who remarked:

"In our rush to produce the oil to generate cash flow, I think we probably made mistakes that if we have taken our time, those mistakes could have been

[72] GNPC (2021). Acquisition of stakes in Aker and AGM blocks by GNPC EXPLORCO. Presentation to Parliament of Ghana, July 2021, at p.15
[73] PIAC 2016 Annual Report, at p.7
[74] For more on reservoir properties, see Hu, X., Hu, S., Jin, F., & Huang, S. (Eds.). (2017). *Physics of petroleum reservoirs*. Springer Berlin Heidelberg.; Aminzadeh, F., & Dasgupta, S. N. (2013). Chapter 2 - Fundamentals of Petroleum Geology. *Developments in Petroleum Science, 60*, 15-36.
[75] Darko, E. (2014). Short guide summarising the oil and gas industry lifecycle for a non-technical audience. *London: Overseas Development Institute*., at p.4

avoided. So that's really goes to the core of some of the challenges that we have in Jubilee"

"Mistakes were made, and even [for] the operator itself, Jubilee was the first field that they operated. They did not have any prior experience operating any field anywhere. I wouldn't say we were the guinea pigs but, in a sense, I mean, they, they learned the ropes using Jubilee to do that"

Specifically, in 2011, the Jubilee Field partners had to drill new wells at a reported cost of US$1.1 billion in addition to a reported US$400 million remedial acid stimulations.[76] This was after some wells at the field, which had started producing only a few months earlier, failed to produce oil due to sand-control failures — reservoir challenges and poor well performance. The monies spent on these new wells and other remedial works are cost recoverable or count as petroleum cost under the respective petroleum agreements signed with Ghanaian state. This, in part, has partly accounted for Ghana's reduced earnings from the Jubilee Field juxtaposed against earlier rosy projections made by some international organisations such as the World Bank[77]. The 2012 Public Interest and Accountability Committee (PIAC)[78] annual report notes, among others, that:

"There was an increase in the average production costs of the Jubilee partners from US$13.99 per barrel to US$16.11 per barrel as a result of having to correct some technical problems encountered in 2011 and the early part of 2012. These corrections included acid stimulations conducted on the fields of the Jubilee Phase 1."

Also, challenges with managing the Jubilee associated gas contributed to some underlying reservoir performance issues. By the time of the Jubilee Unitisation and Unit Operating Agreement being signed in July 2009[79], Ghana's government had committed to building a gas processing plant — herein called the Western Corridor Gas Infrastructure Development Project (WCGIDP) or also known as the Atuabo Gas Processing facility. There was thus an expectation that by the time of first oil in December 2010 or 2011 at the latest, there would have been in place the infrastructure via Ghana

[76] Offshore Magazine (2012a). *Acid stimulation boosts flow from Jubilee wells* Available at: https://www.offshore-mag.com/production/article/16785795/acid-stimulation-boosts-flow-from-jubilee-wells (Accessed: 18 Sep 2021).; Offshore Energy (2012b). *Record Production at Jubilee Field in Ghana.* Available at: https://www.offshore-energy.biz/record-production-at-jubilee-field-in-ghana (Accessed: 19 Sep 2021).
[77] World Bank (2009). Economy-Wide Impact of Oil Discovery in Ghana. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/18903/473210ESW0P1121IC0disclosed03111101.pdf?sequence=1&isAllowed=y (Accessed: 16 Aug 2021), at pp.1-2
[78] PIAC (2013). Annual report on Petroleum Revenue Management for 2011. Available: http://www.piacghana.org/portal/files/downloads/piac_reports/piac_2012_annual_report.pdf (Accessed: 31 Aug 2021), at p.iii
[79] SEC (2019). UNITISATION AND UNIT OPERATING AGREEMENT. Available: https://www.sec.gov/Archives/edgar/data/1509991/000104746911001716/a2201620zex-10_6.htm (Accessed: 31 Aug 2021)

Gas Company or some other company to evacuate the gas and process it for domestic use such as power generation. However, it took until November 2014, about four years after first oil for gas processing infrastructure to be ready (Figure 13). This meant that in the interim, the contractors had to inject more gas back into the reservoirs than was initially estimated. This constant gas reinjection ultimately had an impact on well productivity, as the two respondent comments below show:

> *"So, you have a well here, for example, J37 and you are expected to produce 10,000 barrels a day. And then in five months, it starts producing a lot of gas. You know, they call it GOR [Gas-Oil Ratio]. You see that the gas is coming more than you expect. And it is because every decision has a consequence."*

> *"We started production before putting in place the infrastructure to deal with gas evacuation. And so, a lot of the gas was reinjected back into the reservoirs because we were against gas flaring. And so that impacted also some of the reservoirs. And we are bearing the consequences of those high gases, actually, to the extent that some of the wells have high Gas Oil Ratio (GOR)."*

Finally, floating production storage and offloading (FPSO) reliability and gas compression issues at the topsides further compounded the production outlook challenges for the field. In April 2016, the turret bearing on the Jubilee FPSO Kwame Nkrumah MV21 failed[80], meaning that it was no longer rotating as originally designed. This led to a significant curtailment of production from about 100,000 bopd to about 70,000 bopd and a temporary engineering solution involving the use of tugboats[81] was implemented. The Jubilee FPSO vessel, which is single-hulled as compared to the traditional double-hulled ones used in the industry, had issues with rust and thus relatively high maintenance costs. The FPSO was eventually repaired and permanently spread moored in November 2018 instead of rotating on a turret.[82] The final phase of the turret remediation work took place in May 2020[83]. According to Tullow Oil[84], the cost of fixing the turret issues were eventually recovered through the hull and machinery insurance and business interruption insurance, which covers consequent loss of production and revenues. However, whereas this was cost-neutral from an operational point of view, the Jubilee FPSO turret issues had a major impact on fiscal policy formulation in Ghana with the opportunity cost of the foregone oil

[80] Offshore Energy (2016). *Tullow confirms damage on Jubilee FPSO turret bearing.* Available at: https://www.offshore-energy.biz/tullow-confirms-damage-on-jubilee-fpso-turret-bearing (Accessed: 25 November 2021).
[81] PIAC 2016 Annual Report, at. p.8
[82] PIAC 2018 Annual report, at p.24
[83] PIAC 2020 Annual report, at p.21
[84] Offshore Energy (2016). *Tullow confirms damage on Jubilee FPSO turret bearing* Available at: https://www.offshore-energy.biz/tullow-confirms-damage-on-jubilee-fpso-turret-bearing (Accessed: 26 November 2021)

revenues and subsequent re-insurance of the revamped FPSO vessel. These views are supported by a respondent who remarked:

> *"Look at what happened with the FPSO Turret… they have to incur nearly a billion dollars, almost equal to the cost of the FPSO, which they have to recover all these costs. Though insurance paid part of it, in the long run, the insurance will also claim part of the payment that they made through an increase in premium, which we have to pay."*

3.1.2 *Tweneboa-Enyenra-Ntomme (TEN)*

In August 2016, the second of Ghana's offshore fields, the TEN Field, came onstream using the FPSO Evans Atta Mills for processing and exports. TEN has estimated recoverable reserves of 240 mmboe and 396 bcf of gas.[85] Despite some initial production challenges with reservoir performance — notably in the Enyenra reservoir — as well as the inability of the operators to drill and complete more wells due to the ITLOS initial ruling[86] of "no drilling", production has steadily risen from 14,565 bopd in 2016 to a peak of 64,541 bopd in 2019. Since 2019, however, production has been declining, driven by reservoir performance challenges, namely high water cut in the Enyenra and Ntomme reservoirs.[87] As a result, the field partners have implemented a range of interventions, including acid stimulations and other enhanced recovery techniques and drilling new producer wells. For example, in 2020, the field partners undertook drilling and completion activities at an estimated US$81 million.[88] While the production outlook for TEN remains uncertain, some respondents also expressed concern about the intermittent well productivity performance.

3.1.3 *Sankofa-Gye-Nyame (SGN)/ Offshore Cape Three Points (OCTP)*

First oil from the SGN field was delivered in May 2017. OCTP is an integrated development project encompassing oil and non-associated gas extraction. The block is estimated to have about 1.4 Tcf of non-associated gas and 500 mmboe of oil.[89] Like the TEN and the Jubilee Field, SGN is developed through wells and subsea systems linked through pipelines to FPSO John Agyekum Kufuor. Oil production from SGN increased from 14,947 bopd in 2017 to 51,232 bopd in 2020. However, this is still below the forecasted peak of 80,000 bopd as of 2019.[90]

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[85] PIAC 2016 Annual report, at p.9

[86] ITLOS (2015). Dispute Concerning Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire).Available at: https://www.itlos.org/en/main/cases/list-of-cases/case-no-23/case-no-23-provisional-measures (Accessed: 26 November 2021).

[87] PIAC 2019 Annual report, at p.25

[88] PIAC 2020 Annual report, at p.22

[89] Eni (n.d.). OCTP: oil and gas off the coast of Ghana. Available at: https://www.eni.com/en-IT/operations/ghana-octp.html (Accessed: 26 November 2021).

[90] Offshore Technology (2021). Offshore Cape Three Points (OCTP) Integrated Oil and Gas Project. Available at: https://www.offshore-technology.com/projects/offshore-cape-three-points-octp-integrated-oil-and-gas-project

Gas production also started in 2017, although it was not until the non-associated gas (NAG) facilities on the FPSO was commissioned in June 2018 that gas exports to the Onshore Receiving Facility (ORF) at Sanzule in the Western Region could commence.[91] Since then, gas exports have quickly ramped up from 17 mmscfd in 2018 to 155 mmscfd as of the end of 2020. Gas from the SGN Field provides more than 50% of the feedstock for thermal power generation in Ghana.[92] The overall investment for the OCTP project was projected at US$7.2 billion, including an additional partial risk guarantee provided by the World Bank. Nevertheless, the negotiated contractual headline gas price of US$9.8 per MMBtu (in 2015 dollars) was reported to have been subsequently restructured downwards to US$7.89 per MMBtu (in 2018 dollars), reflecting project cost savings and lower base commodity prices in line with the indexation provisions in the contract. The reduction was primarily based on a formula in the gas sales agreement (GSA) which allowed a redetermination of the gas price if actual cost turned out to be less than estimated. Public backlash also influenced the momentum to renegotiate the gas price with criticisms from various experts (including political parties and civic groups) that the 2015 agreement was "a bad one"[93] and not in the country's interest[94]. However, the field operator insisted[95] that the deal was best for the country.

3.2 Annual liftings analysis

Figure 15 and **Table 10** **show the summary of liftings from the three producing fields, namely Jubilee, TEN and SGN.** From the first production to the end of 2020, a total of 450.26 million barrels (123,358 bopd average) of crude oil has been sold (lifted) from all fields. This compares with a total production of 454.02 million barrels, meaning that almost 99.17% of all the crude produced since the time has been sold or marketed to various buyers. Of this amount**, the Ghana Group has lifted 78.85 million barrels (17.5% or 21,603 bopd average) while the partner group has lifted 371.41 million barrels (82.49% or 101,755 bopd average) of that sold**.[96]

We observe some small heterogeneity in lifting volumes at the individual field level. For example, the Ghana Group share makes up 18.06% (56.14 mmbbls) of the total lifting of 310.84 mmbbls from the Jubilee Field since first production (Table 10). On the other hand, the Partner or IOC Group share comprises 81.94% or 254.70 mmbbls. Fifty-eight (58) cargoes of Jubilee crude with an average size of 967,873 bbls and average value of US$72.46 million have been lifted by the Ghana Group, with the first lifting

[91] PIAC 2018 Annual report, at p.25

[92] Eni (n.d.). OCTP: oil and gas off the coast of Ghana. Available at: https://www.eni.com/en-IT/operations/ghana-octp.html

[93] Reporting Oil and Gas (2018). *Ghanaians Want Review of ENI Contract …Gas Very Expensive To Be Sold In Ghana*. Available at: http://www.reportingoilandgas.org/ghanaians-want-review-of-eni-contract-gas-very-expensive-to-be-sold-in-ghana

[94] Mohammed A. A. (2015). *Ghana to loose big in ENI gas deal*. Available at: https://www.modernghana.com/news/605172/ghana-to-loose-big-in-eni-gas-deal.html.

[95] MyJoyOnline.com (2021). *Gas purchase agreement: Eni insists deal is best for Ghana*. Available at: https://www.myjoyonline.com/gas-purchase-agreement-eni-insists-deal-is-best-for-ghana

[96] The Ghana Group entitlement or share comprises royalties and the carried and participating interest (CAPI) as per the respective petroleum agreements. It does not include other payments such as surface rentals, corporate income tax (CIT) and income earned from the petroleum holding fund (PHF).

occurring in March 2011 (Figure 16). For the TEN Field, the Ghana Group share makes up 19.01% or 16.92 mmbbls) of the total lifting of 89.04 mmbbls since first production.

On the other hand, the Partner or IOC Group share comprises 80.99% or 72.12 mmbbls. Furthermore, seventeen (17) cargoes of TEN crude with an average size and value of 995,546 bbls and US$57.24 million respectively have been lifted by the Ghana Group, with the first lifting occurring in December 2016 (Figure 17). Lastly, for SGN, the Ghana Group share is 11.49% or 5.79 mmbbls of the total lifting of 50.38 mmbbls since first production. On the other hand, the Partner or IOC Group share comprises 88.51% or 44.59 mmbbls. Here also, six (6) cargoes with an average size of 964,961 bbls and a value of US$52.82 million have been lifted by the Ghana Group, with the first lifting occurring in April 2018 (Figure 18).

In the subsequent analysis, we use annual achieved prices (based on Dated Brent) and volumes marketed to get a fair idea of the revenue share of the marketed crude between the Ghanaian state and its partners in the respective fields. We note that **the achieved selling prices of Ghana's crude traded closely to Dated Brent prices, which reflects a continuous and commendable effort to generate value for the country** (Figure 19a). **Cumulatively, we estimate that about US$31.22 billion of value has been generated from crude oil sales from all of Ghana's three producing fields** (Figure 19b). Of this, US$23.52 billion (75%) comes from the Jubilee Field, US$5.11 billion (17%) from TEN and US$2.60 billion (8%) from SGN. Similar to the volume share, the value of Ghana Group's liftings over the period amounts to US$5.4 billion or 17.30% of the total US$31.22 billion estimated value. This increases marginally to US$6.55 billion or about 21% when surface rentals, corporate income tax and other receipts are also considered. While such numbers raise questions about the effectiveness of the fiscal regime and underlying fiscal instruments, **these need to be juxtaposed against the production costs to get a fairer assessment of the sharing of the revenue pie**. Some recent estimates[97] indicate that about US$19 billion has been invested by the IOCs into all three fields. This comprises US$8.8 billion of investments into the Jubilee Field, US$5 billion in TEN, and US$5.2 billion in the SGN Field.[98]

This implies the vital need for Ghana to diligently review and vet costs provided by the IOCs, as this ultimately goes to the heart of whether the country will get its fair share of revenues, especially for revenue contribution from CAPI. This has a direct impact on how much net proceeds will be available to the Ghana Group. The root causes of this lie in Ghana's hybrid royalty-tax fiscal regime, given that the petroleum (corporate) income tax and additional oil entitlement (AOE), the two fiscal instruments with the highest marginal rates, are all profit dependent. The corporate income tax, for example, is also further applied at a company level and not the field level, meaning several other deductions such as head office and research and development costs count as cost items. Furthermore, interest expenses and losses carried forward for five years are allowed in

[97] Oppong, R., & Kwame Amoni, E. (2021). Assessing Investment in Ghana's Upstream Oil and Gas Industry: The Risk and Returns. In *SPE Nigeria Annual International Conference and Exhibition*. OnePetro.
[98] Ibid (n 97)

the computation of tax in addition to the cost deductions.[99] The need for strong cost monitoring was strongly expressed by several interviewees, both from the public and private sectors. One interviewee remarked:

> *"We also need to have what it takes to monitor costs. Everybody knows that multinationals do transfer pricing. It is an area where a lot of monies have been lost. I mean, many costs for the projects were inflated"*

This view was shared by another stakeholder who remarked:

> *"It doesn't matter whether production sharing or royalty tax. What matters is the fiscal elements in the terms because they can all be engineered to reach the same government take. The other issue I will talk about is the capacity to administer. That has been the challenge; the industry is all about costs and revenue. So, if you can control costs, then even if your percentage take out of the economic rent is 5%, you will be getting higher than if you are not able to control costs in that regard. I will say that the challenge has actually been the cost control and cost management, which the IOCs are taking advantage. But regarding the terms, I will say what we put in is what we are getting.*

Another stakeholder, in a similar manner, also said:

> *"We over-concentrated on figures over the years. So, we say corporate income tax is so-so and so percent. And because we see it as a very high percentage, that was our focus. Corporate income tax is a function of profits, and profit is a function of revenue and cost. If we don't audit their cost, how do we even claim that they've made X profit and have to pay us this. So that overconcentration also cost us."*

[99] See Acheampong, T., & Ali-Nakyea A. (2022). Competitiveness of Ghana's Upstream Petroleum Fiscal Regime: Fit for Purpose? In: Acheampong, T and Stephen TK. (eds) *Petroleum Resource Management in Africa: Examining the Lessons from Ten Years of Oil and Gas Production in Ghana.* Palgrave MacMillan

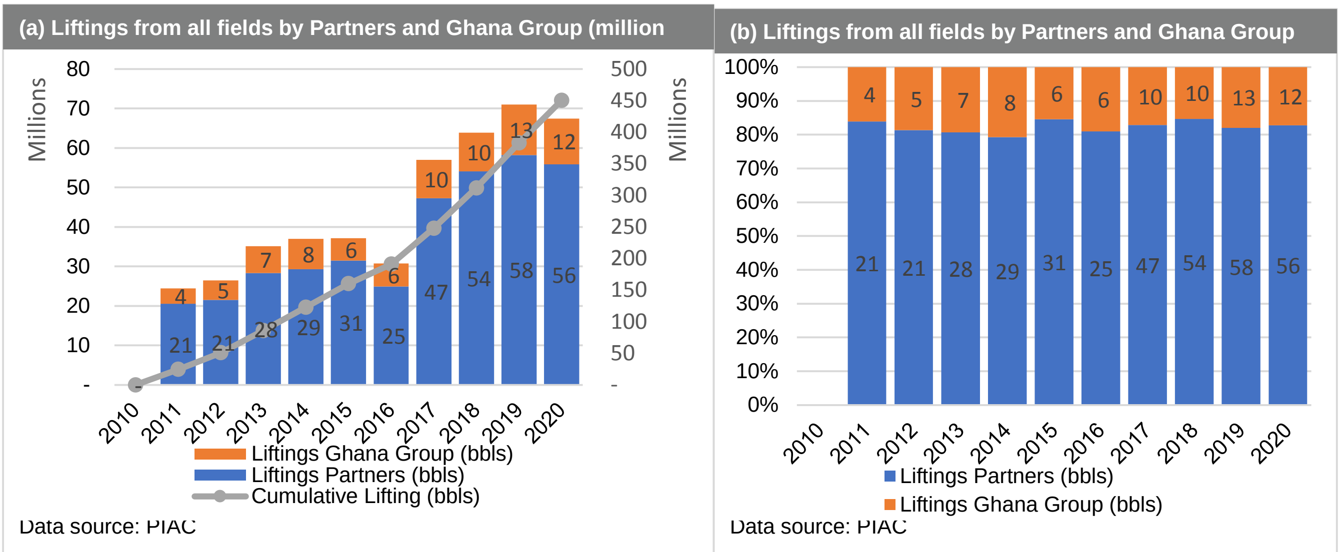


Figure 15: Liftings from all fields by Partners and Ghana Group

Table 10: Ghana Group and partner lifting shares (2010-2020)

Year	Jubilee		TEN		SGN		Overall	
	Partners Lifting (mmbbls)	Ghana Group Lifting (mmbbls)	Partners Lifting (mmbbls)	Ghana Group Lifting (mmbbls)	Partners Lifting (mmbbls)	Ghana Group Lifting (mmbbls)	Partners Lifting (mmbbls)	Ghana Group Lifting (mmbbls)
2010	-	-	-	-	-	-	-	-
2011	20.52	3.93	-	-	-	-	20.52	3.93
2012	21.50	4.93	-	-	-	-	21.50	4.93
2013	28.33	6.79	-	-	-	-	28.33	6.79
2014	29.31	7.68	-	-	-	-	29.31	7.68
2015	31.44	5.73	-	-	-	-	31.44	5.73
2016	21.27	4.86	3.64	1.00	-	-	24.91	5.86
2017	26.57	5.74	16.00	4.04	4.67	-	47.24	9.78
2018	24.98	4.81	19.41	3.98	9.69	1.00	54.09	9.78
2019	25.70	5.87	17.42	4.93	15.12	1.95	58.24	12.74
2020	25.08	5.79	15.64	2.98	15.12	2.85	55.84	11.62
Total	**254.70**	**56.14**	**72.12**	**16.92**	**44.59**	**5.79**	**371.41**	**78.85**
	Jubilee		**TEN**		**SGN**		**Overall**	
Year	**Partners Lifting (%)**	**Ghana Group Lifting (%)**	**Partners Lifting (%)**	**Ghana Group Lifting (%)**	**Partners Lifting (%)**	**Ghana Group Lifting (%)**	**Partners Lifting (mmbbls)**	**Ghana Group Lifting (mmbbls)**
2010	-	-	-	-	-	-	-	-
2011	83.93%	16.07%	-	-	-	-	83.93%	16.07%
2012	81.34%	18.66%	-	-	-	-	81.34%	18.66%
2013	80.66%	19.34%	-	-	-	-	80.66%	19.34%
2014	79.23%	20.77%	-	-	-	-	79.23%	20.77%
2015	84.58%	15.42%	-	-	-	-	84.58%	15.42%
2016	81.40%	18.60%	-	-	-	-	80.96%	19.04%
2017	82.23%	17.77%	79.85%	20.15%	100.00%	0.00%	82.85%	17.15%
2018	83.86%	16.14%	82.99%	17.01%	90.68%	9.32%	84.68%	15.32%
2019	81.40%	18.60%	77.96%	22.04%	88.59%	11.41%	82.05%	17.95%
2020	81.25%	18.75%	83.98%	16.02%	84.15%	15.85%	82.77%	17.23%
Total	**81.94%**	**18.06%**	**80.99%**	**19.01%**	**88.51%**	**11.49%**	**82.49%**	**17.51%**

Source: Authors' construct based on PIAC, Ministry of Finance and Bank of Ghana data

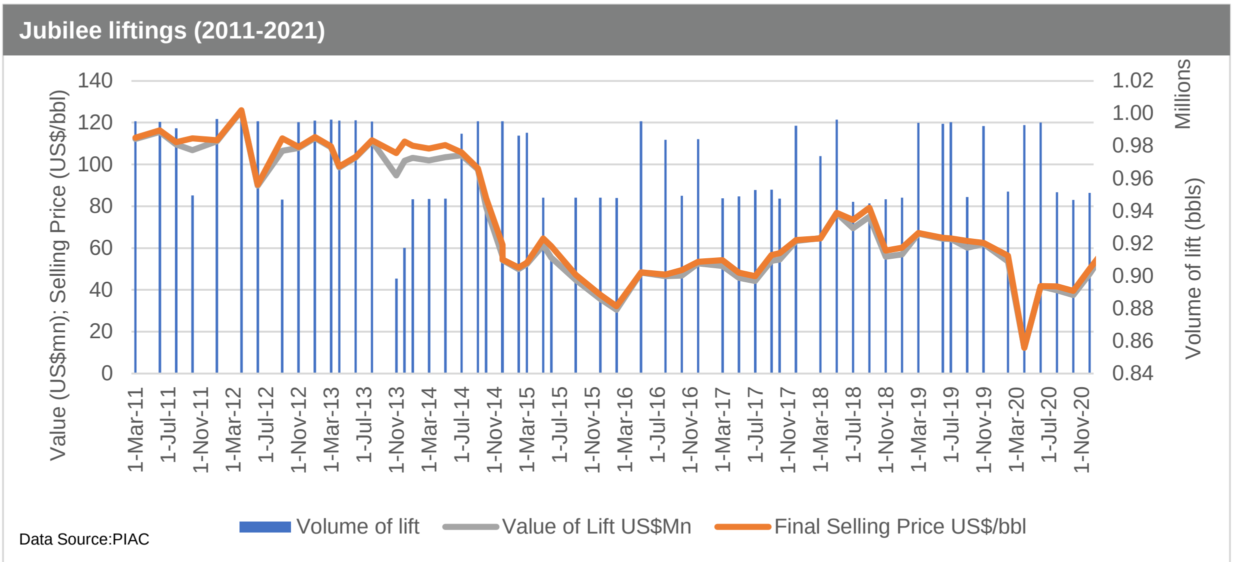


Figure 16: Jubilee liftings (2011-2020)

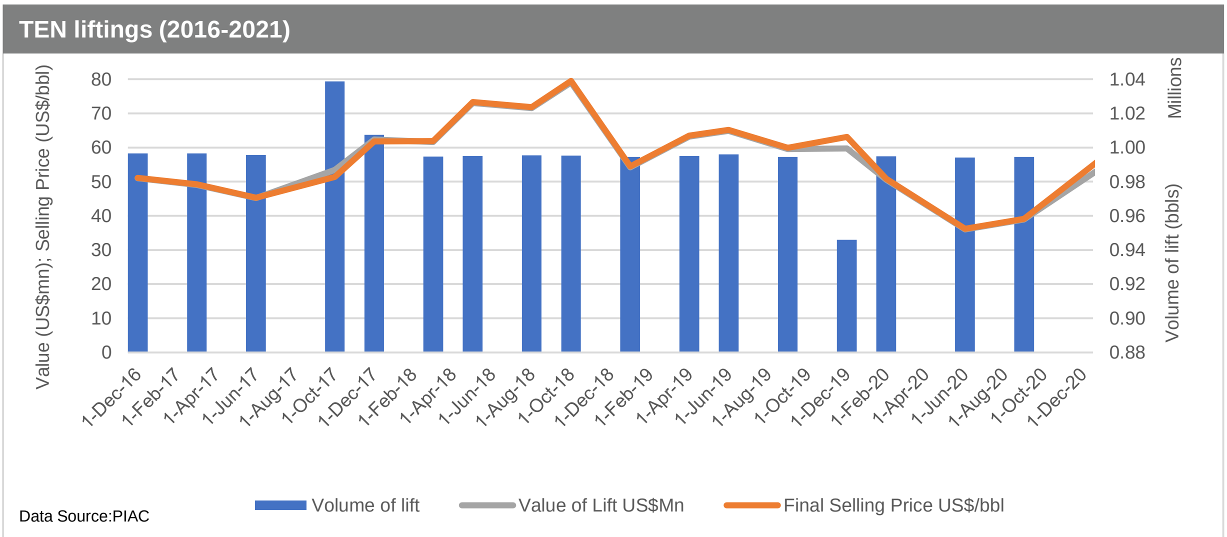


Figure 17: TEN liftings (2016-2020)

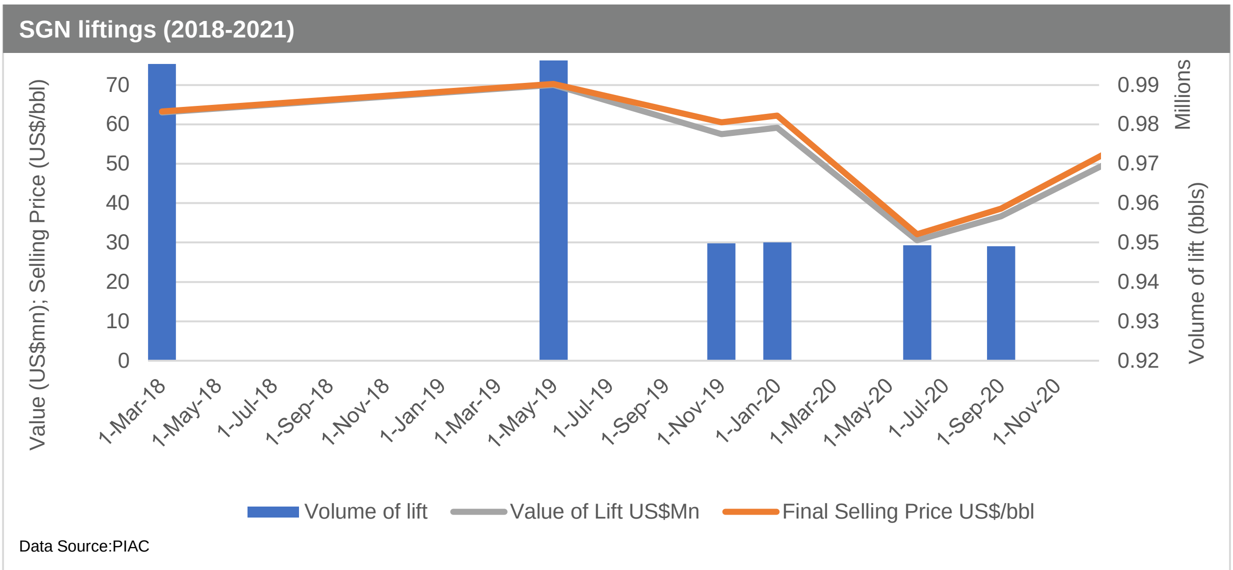
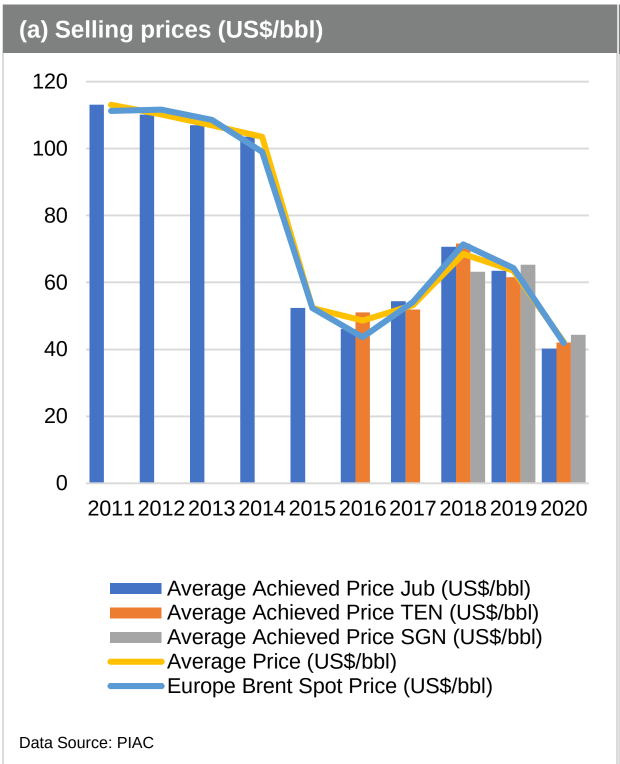


Figure 18: SGN liftings (2018-2020)



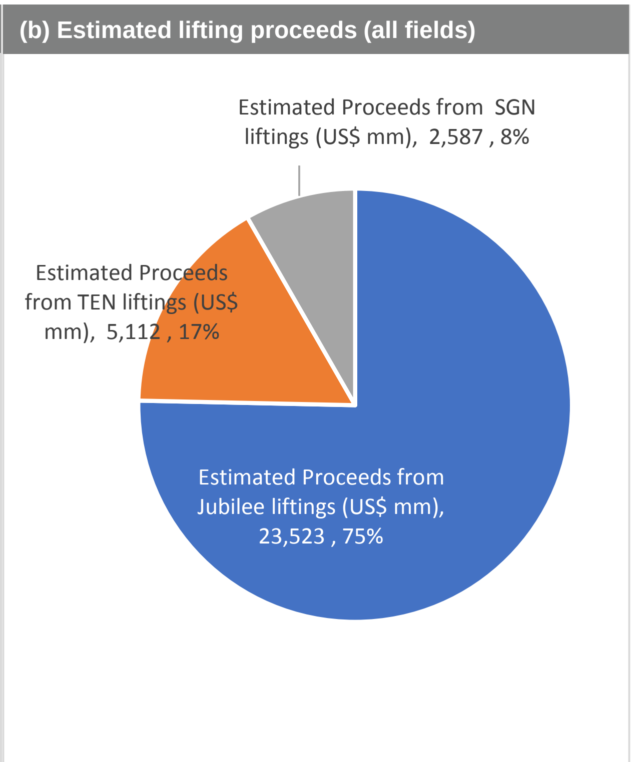


Figure 19: Estimated lifting proceeds and selling prices

3.3 Annual revenue analysis

The following fiscal instruments[100] account for the sources of revenue in Ghana's petroleum contracts:

- Signature Bonus
- Production Bonus
- Royalties
- Carried (Initial) Interest
- Additional Interest
- Petroleum (Corporate) Income Tax
- Additional Oil Entitlement (AOE)
- Surface Rentals
- Training Allowances[101]
- Gas Receipts

These monies are paid first into the Petroleum Holding Fund (PHF), a general account located at the Bank of Ghana, which serves as the initial repository of all petroleum payments due to the State.

As indicated earlier in Section 3.2, Ghana has earned US$6.55 billion in petroleum receipts between 2010 and 2020, equivalent to 9.97% of 2020 GDP (Table 11)**.** Oil and gas rents[102], which capture the difference between the value of crude oil production at regional prices and total production costs, increased from less than 0.5% of GDP before 2010 to an average of 4.5% of GDP between 2011-2014. This then declined to 1.25% of GDP from 2015 to 2016 — commensurate with the commodities price slump over the period – but has picked to 4.1% of GDP since 2017. The latter is due to the recovery in crude oil prices and the coming onstream of new fields, namely TEN and SGN.

Regarding the breakdown of petroleum receipts by fiscal instrument, we find that carried & participating interest (CAPI) has by far generated the highest share, accounting for 58% or US$3.81 billion of the total US$6.55 billion revenue earned (Table 11 and Figure 20). This is followed by royalties at 25% (1.64 billion) and then corporate income tax at 17% or US$1.08 billion. Other smaller income receipts include gas receipts, income (interest) earned on the PHF, and price differentials/other income (Table 11 and Figure 20).

[100] A full discussion of these fiscal instruments is beyond the scope of this report. For interest, see Acheampong, T., & Ali-Nakyea A. (2022). Competitiveness of Ghana's Upstream Petroleum Fiscal Regime: Fit for Purpose? In: Acheampong, T and Stephen TK. (eds) *Petroleum Resource Management in Africa: Examining the Lessons from Ten Years of Oil and Gas Production in Ghana.* Palgrave MacMillan

[101] Training & Technology Allowance is normally paid directly to GNPC or the Petroleum Commission where applicable and not into the PHF.

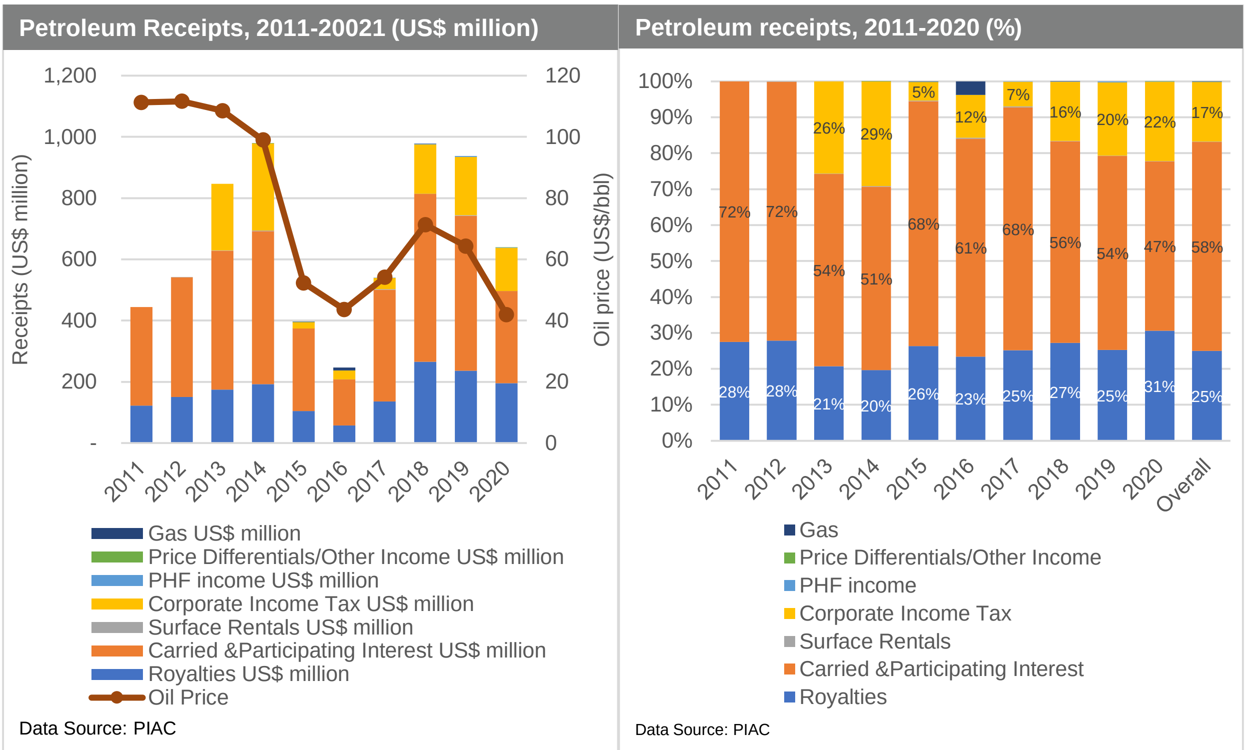
[102] World Development Indicators | DataBank (2021). Available at: https://databank.worldbank.org/reports.aspx?source=2&series=NY.GDP.PETR.RT.ZS&country=GHA

Table 11: Petroleum receipts, 2011-2020 (US$ million)

Item	Royalties	Carried & Participating Interest	Surface Rentals	Corporate Income Tax	PHF income	Price Differentials/Other Income	Gas Receipts	Total Receipts
Unit	US$ million							
2011	122.17	321.95	-	-	-	-	-	444.12
2012	150.98	390.43	0.57	-	-	-	-	541.98
2013	175.18	453.57	0.80	216.99	-	-	-	846.53
2014	192.81	499.33	1.78	284.55	0.12	0.30	-	978.89
2015	104.21	270.08	0.47	20.41	0.03	0.42	0.55	396.17
2016	57.85	149.94	0.47	29.55	0.07	-	9.30	247.18
2017	135.86	365.44	1.57	36.96	0.58	-	-	540.41
2018	265.61	548.33	0.94	160.61	1.61	-	0.03	977.12
2019	236.79	505.99	1.11	191.14	2.55	-	-	937.58
2020	195.34	300.93	0.70	141.14	0.34	0.18	-	638.63
Total	**1,636.80**	**3,806.00**	**8.39**	**1,081.33**	**5.30**	**0.89**	**9.89**	**6,548.61**

Source: Authors' construct based on PIAC, Ministry of Finance and Bank of Ghana data

Figure 20: Petroleum receipts, 2011-2020 (%)



In terms of the distribution of the revenues, **the Annual Budget Funding Amount (ABFA) has been allocated the highest amount of US$2.6 billion (40%) over the period**. This is followed by Ghana National Petroleum Corporation (GNPC) at US$2.0 billion (30%). Also, the Ghana Stabilisation Fund (GSF) has received US$1.39 billion (21%) of total revenues, whereas the Ghana Heritage Fund (GHF) has received US$586 million (9%) of the total allocation. These allocations are broadly consistent with the

PRMA 2011, Act 815 (as amended).[103] Table 12 and Figure 21 below show the distribution of petroleum revenues from 2011 to 2020.

The ABFA is the primary channel for using petroleum revenues to support the budget. The PRMA enjoins ABFA allocations to be guided by a medium-term development strategy aligned with a long term national development plan (NDP). However, given that Ghana lacks a long-term national development plan, the PRMA mandates that the ABFA should prioritise – but not be necessarily limited to – programmes or activities relating to twelve (12) areas.[104] Nevertheless, the government is enjoined not to prioritise more than four (4) areas when submitting a programme of activities to use the petroleum revenue. This is to avoid a situation where a government will attempt to tackle too many of these areas simultaneously, thus spreading revenues too thinly, with minimal transformational impact.[105]

Payments from the PHF to GNPC are made to cover their operations and finance activities pertaining to GNPC's interests in PAs, such as meeting joint venture development and production cash calls. According to Sections 7(1), 7(2) and 7(3) of the PRMA, GNPC is entitled to receive its equity financing costs prior to payment of oil receipts into the PHF. It is also allocated not more than 55% of the receipts of net cash flow from the State's carried and participating interests (CAPI), which can be in cash or equivalent barrels of oil. The amounts allocated to GNPC are reviewed every three years by Parliament, which also approves the programme of activities of GNPC every year. Currently, GNPC receives 30% of the net CAPI revenues.

Given the priority given to both ABFA and GNPC in terms of allocation of petroleum receipts, including ahead of the saving and stabilisation funds, it is not surprising to see the significant interest by various stakeholders, including PIAC and CSOs, with demands for greater transparency and accountability regarding the use of ABFA and GNPC funding. These are discussed more extensively in other sections of this report.[106]

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[103] See Section 2.4 for more details on PRMA flows
[104] See PIAC (2017). Simplified Guide to the PRMA, at p.18
[105] See PIAC (2017). Simplified Guide to the PRMA, at p.18
[106] See Chapter 4 and Chapter 5

Table 12: Distribution of petroleum receipts, 2011-2020 (US$ millions)

Year	Ghana National Petroleum Cooperation (GNPC)	Annual Budget Funding Amount (ABFA)	Ghana Stabilisation Fund (GSF)	Ghana Heritage Fund (GHF)	Total Annual Receipts
Unit	US$ million				
2011	207.96	166.96	54.81	14.40	444.13
2012	230.95	286.55	16.88	7.34	541.72
2013	222.32	273.20	245.73	105.31	846.56
2014	180.71	409.07	271.76	116.47	978.01
2015	126.86	292.98	15.17	6.50	441.51
2016	88.50	98.38	29.51	12.65	229.14
2017	182.04	169.46	142.68	61.15	555.33
2018	286.60	235.00	305.20	131.02	976.49
2019	279.23	395.47	188.30	80.70	925.02
2020	198.65	273.38	116.63	49.98	638.64
Total	**2,003.91**	**2,600.45**	**1,386.67**	**585.52**	**6,576.55**

Source: Authors' construct based on PIAC, Ministry of Finance and Bank of Ghana data

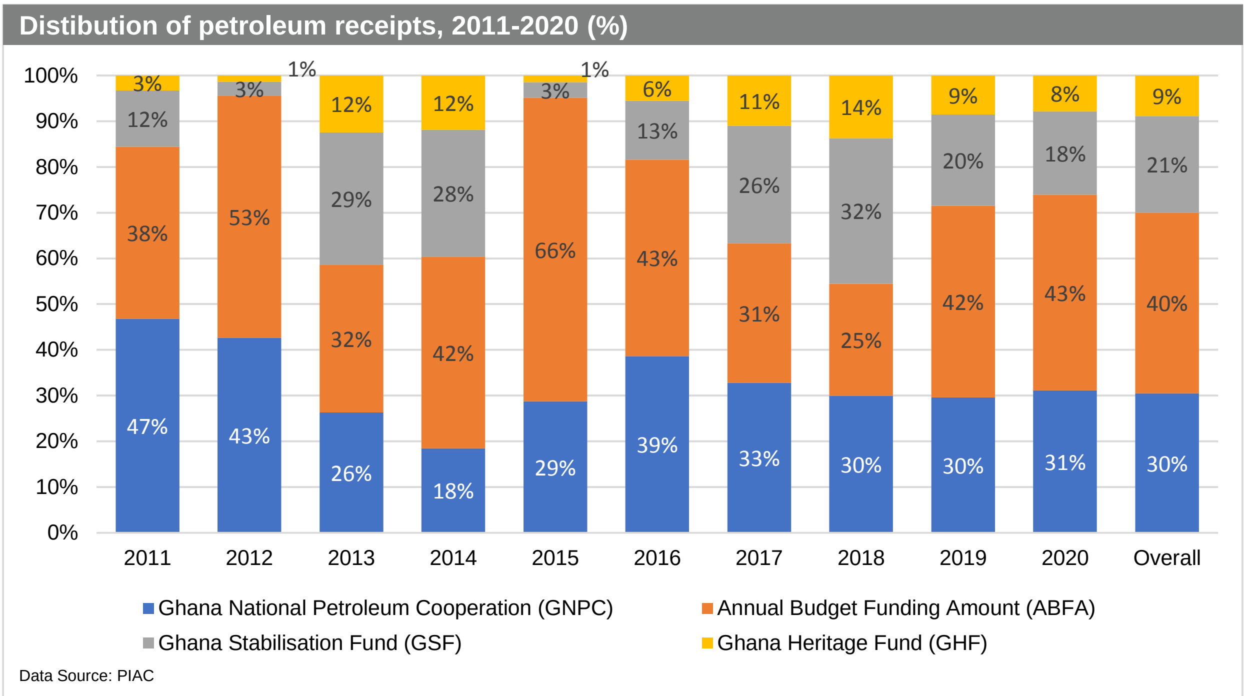

Figure 21: Distribution of petroleum receipts, 2011-2020 (%)

3.4 Conclusion

Ghana has signed eighteen (18) petroleum agreements with various international and local oil companies since the early 2000s. Of these, there are three (3) producing fields, namely the Jubilee, Tweneboa-Enyenra-Ntomme (TEN) and Sankofa-Gye Nyame (SGN). Ghana's crude oil output has increased from 3,236 barrels of oil equivalent per day (bopd) in December 2010 to 183,361 bopd as of December 2020, representing an average production of 113,081 bopd and 44% compounded annual growth rate (CAGR). Likewise, total gas production, comprising associated and non-associated gas, has grown by 23% CAGR from 153 million standard cubic feet per day (mmscfd) to 652 mmscfd.

Nevertheless, the data shows that total production from Ghana's three fields peaked in 2020 and will continue to peak for at least three years, after which it will begin a decline if nothing is done by way of new in-fill developments on these existing fields or new fields coming on-stream. The peaking is further compounded by reservoir challenges on some fields leading to production losses, while the above-surface issues include FPSO reliability challenges and delayed gas processing infrastructure forcing gas re-injection, which is ultimately negatively impacting well performance.

From the first production to the end of 2020, a total of 450.26 million barrels (123,358 bopd average) of crude oil has been sold (lifted) from all fields. The Ghana Group has lifted 78.85 million barrels (17.5% or 21,603 bopd average), while the partner group has lifted 371.41 million barrels (82.49% or 101,755 bopd average) of the crude sold. The achieved selling prices of Ghana's crude traded closely to traded Brent prices, reflecting a continuous and commendable effort to generate value for the country.

Cumulatively, we estimate that about US$31.22 billion of value has been generated from all of Ghana's three producing fields. The value of Ghana Group's liftings over the period amounts to US$5.4 billion or 17.30% of the total US$31.22 billion estimated value. This implies the vital need for Ghana to vet costs provided by the IOCs, as this ultimately goes to the heart of whether the country will get its fair share of revenues.

Regarding the breakdown of petroleum receipts by fiscal instrument, we find that carried & participating interest (CAPI) has by far generated the highest share, accounting for 58% or US$3.81 billion of the total US$6.55 billion revenue earned. This is followed by royalties at 25% (1.64 billion) and then corporate income tax at 17% or US$1.08 billion. Other smaller income receipts include gas receipts, income (interest) earned on the PHF, and price differentials/other income.

4 GNPC's Role in Managing Petroleum Revenues

This section examines

- GNPC's mandate and evolution
- GNPC's use of its allocated portions of petroleum revenues
- Political economy analysis of GNPC and its operations

4.1 GNPC's evolution and mandate

The Ghana National Petroleum Corporation (GNPC) was established in 1983 under the *Ghana National Petroleum Corporation Law,* 1983 (PNDCL 64).[107] As per PNDCL 64, GNPC's primary mandate is to serve as Ghana's national oil company (NOC) to undertake the exploration, development, production and disposal of petroleum.[108] The objects of the Corporation, as defined in Section 2 of PNDCL 64 include:

a. *Promoting the exploration and the orderly and planned development of the petroleum resources of Ghana.*
b. *Ensuring that Ghana obtains the greatest possible benefits from the development of its petroleum resources.*
c. *Obtaining the effective transfer to Ghana of appropriate technology relating to petroleum operations.*
d. *Ensuring the training of citizens of Ghana and the development of national capabilities in all aspects of petroleum operations.*
e. *Ensuring petroleum operations are conducted in such a manner as to prevent adverse effects on the environment, resources and people of Ghana.*

GNPC is also enjoined under Section 3 of PNDCL 64 to, among others:

a. *Advise the Minister of Energy on matters relating to petroleum operations.*
b. *Engage in petroleum exploration and production agreements and other petroleum contracts either alone or in association with others.*
c. *Enter into petroleum exploration and production agreements and other petroleum contracts providing for the assistance, participation, or co-operation of contractors in connection with petroleum operations*
d. *Buy, sell, trade, store, exchange, import or export petroleum and for this purpose, acquire or operate any installations, facilities or means of transportation.*

[107] Per the Laws of Ghana (Revised Edition) Act, 1998 (Act 562), the suffix is now "Act" as opposed to "Law."
[108] Section 2 of PNDCL 64

The requirements of the law under the GNPC Act meant that GNPC was set up with the main mandate of being a commercial player all the while interacting with different categories of stakeholders. In practice however, it also performed de-facto regulatory and managerial functions under the general supervision of the mandated regulator, the Ministry, and served in an advisory capacity to the Ministry as well. These managerial, technocratic, regulatory and advisory functions were in essence transferred to the Petroleum Commission, when the entity was set up in 2011. As such, when the Petroleum Commission was set up in 2011, its governing Act stated in Section 24(1); "Six months after the commencement of this Act, the Ghana National Petroleum Corporation shall cease to exercise any advisory function in relation to the regulation and management of the utilization of petroleum resources and the co-ordination of policy in relation to that function." Section 24(3) also states; "Subject to the provisions of this Act, a Government agency or authority shall not exercise any function in relation to the regulation and management of the utilisation of petroleum resources and the co-ordination of policies in relation to that function."

Regarding its commercial function, GNPC is the Ghanaian state's main commercial strategic vehicle for state participation in the oil and gas industry. By law, that is, per Section 10(1) of the *Petroleum Act,* 2016, GNPC is a partner in all Petroleum Agreements (PA) signed with contractors through its initial carried interest and where applicable, additional participating interest (CAPI). On the other hand, the regulatory/resource management functions of GNPC includes promoting orderly and planned exploration and development of Ghana's petroleum resources, and enforcing compliance with health, safety and environmental (HSE) protocols. Others include promoting local content through technology transfer and human resource development.

GNPC maintains relationships with various parties. Its main stakeholders include the people of Ghana through the government and statutory state institutions such as the Ministry of Energy, Ministry of Finance, Parliament, Petroleum Commission, and State Interest and Governance Authority (SIGA)[109] (Figure 22). Other stakeholders include various accountability institutions such as the Public Interest and Accountability Committee (PIAC) and the Auditor General. Also included are frontline communities where oil and gas activities occur, such as the Western Region, local and foreign partners including the IOCs and service companies, civil society organisations (CSOs), academia, and the media.

[109] Formerly called the State Enterprises Commission (SEC)

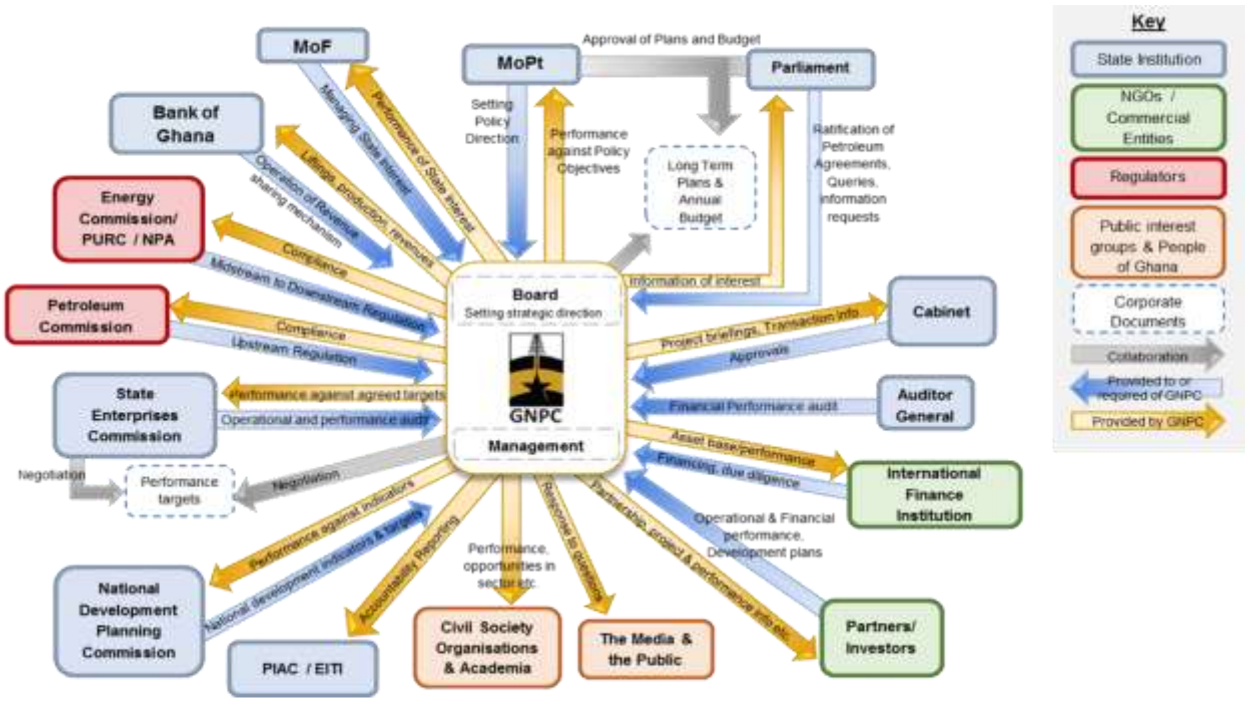

Figure 22: GNPC's Core Stakeholders

Source: GNPC (2018)[110]

GNPC as a commercial player

The State through GNPC is entitled to a minimum of 15% carried interest in Petroleum Agreements consistent with the Petroleum (Exploration and Production) Act, 2016 (Act 919). Carried Interest is defined in the petroleum agreement as an interest held by GNPC in respect of which the contractor pays for the conduct of petroleum operations without any entitlement to reimbursement from GNPC for Exploration and Development operations. The initial participating carried interest is at least 15% for Exploration and Development under the *Petroleum (Exploration and Production) Act,* 2016 (Act 919).[111] It was initially 10% in Petroleum Agreements preceeding the Act 919. Also, GNPC can acquire an additional participating interest within a specified period following the declaration of commercial discovery in each Petroleum Agreement. GNPC pays for the acquisition of this interest as well as all costs incurred in conducting petroleum activities other than exploration costs.[112]

Furthermore, in performing this commercial role, GNPC and its partners (the international oil companies: IOCs) have since the late 1980s funded various seismic data acquisitions, including other exploration and downstream activities (Figure 23). GNPC, in 1994, purchased[113] the *Discoverer 511 drillship* from Houston-based Transocean Offshore to undertake extensive exploration activities in Ghana

[110] GNPC (2018). Stakeholder Reporting Requirements Presentation.
[111] Section 10(14) of Act 919
[112] Section 14(b)(ii) of Act 919
[113] See https://www.africaintelligence.com/oil--gas/1997/01/08/gnpc-ship-in-us-gulf,41130-art

following several minor oil and gas discoveries in parts of the Tano Basin in the Western Region. GNPC had earlier in 1991, planned a two well offshore drilling program in the South Tano field close to the boundary with Cote d'Ivoire.[114] The North and South Tano fields had earlier been discovered in 1978 but relinquished by Phillips Petroleum Corp — South Tano flowed 1,614 barrels per day of oil and 8.2 MMcfd of gas.[115] Also, in 1996, GNPC entered into a derivatives contract with French bank Société Générale to manage oil price risk in anticipation of production of oil from the Tano Fields. Nevertheless, the contract became embroiled in a dispute[116], exacerbated by the non-commerciality of the Tano discoveries.

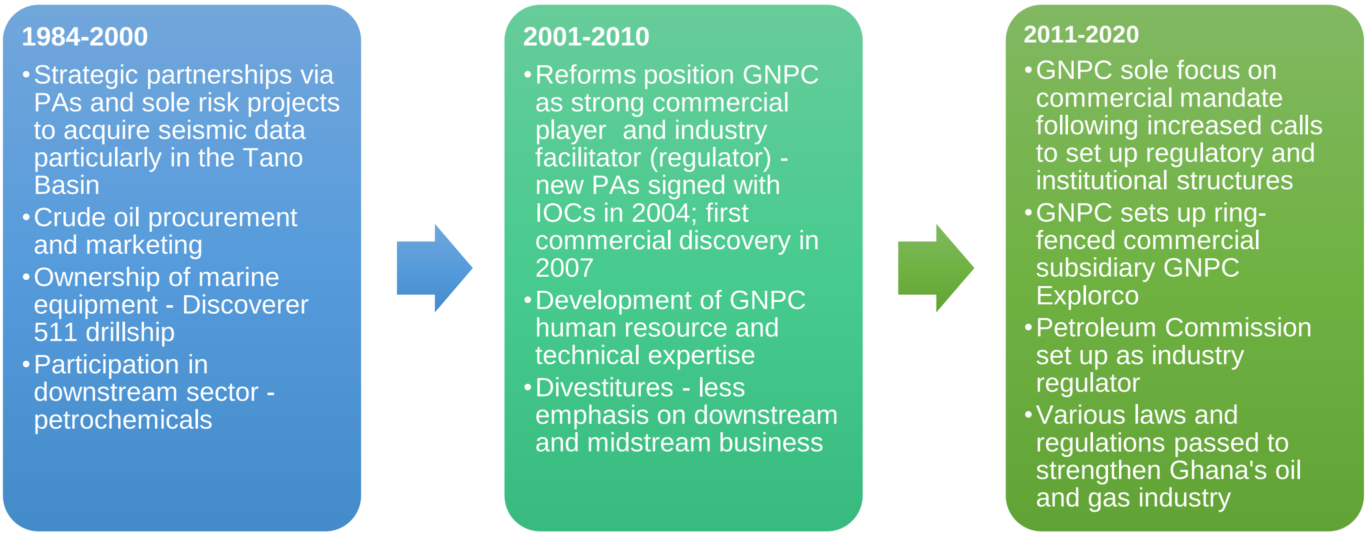

Figure 23: Evolution of GNPC's activities

Source: Authors' construct

Most recently, GNPC has sought to maintain a sole focus on this commercial mandate by forming joint ventures and other forms of cooperation with international or local partners, particularly with IOCs and major supply chain companies. GNPC in November 2012, set up GNPC Exploration and Production Company (GNPC Explorco) as a fully-owned subsidiary, in line with GNPC's strategic ambition "of building stand-alone operatorship capacity".

Additionally, as part of Ghana's first competitive licensing and bidding round in 2018, GNPC was allocated one (Block 1) out of the six oil blocks to explore on a sole risk basis or in partnership with a strategic partner "with a view to grow and replace overall reserves

[114] See https://www.ogj.com/drilling-production/production-operations/article/17239033/ghana-seeks-to-resume-offshore-production

[115] Ibid (n 114)

[116] Stephens, T. K. (2019). Framework for petroleum revenue management in Ghana: current problems and challenges. *Journal of Energy & Natural Resources Law*, *37*(1), 119-143. See also https://www.ghanaweb.com/GhanaHomePage/NewsArchive/24m-GNPC-drillship-palaver-Gov-t-s-3-5m-traced-to-New-York-288831; https://www.modernghana.com/news/490118/the-sale-of-gnpcs-drill-shipthe-story-according.html; https://allafrica.com/stories/201309180112.html

consistent with its core mandate. Most recently, GNPC has also sought to increase its share of reserves through acquisitions. GNPC is in negotiations with Aker Energy, operator of the Deepwater Tano Cape Three Points (DWTCTP) block and AGM Petroleum, operator of the South Deepwater Tano (SDWT) block to acquire commercial interests (see Box 2). The negotiations are ongoing, and Government has appointed consultants including Bank of America to carry out due diligence and make recommendations on the percentage stake that would deliver value for money for the nation. While GNPC officials and government functionaries hailed the proposed acquisition as ground-breaking and value-adding, it was criticised by Civil Society Organisations (CSOs) as not being in the best interests of the nation.[117] Primary objections raised included the valuation assumptions including overoptimistic oil prices, lack of independent certification of the reserves and contingent resources from the fields, historical cost recoveries, among others.

In its response, GNPC praised the deal, saying among others, that the proposed acquisition in the two blocks would add an extra 200,000 bopd to Ghana's output, save the NOC US$700 million and also allow it to inherit US$1.2 billion in capital allowances.[118] Senior officials of the Corporation in subsequent media engagements indicated that there was a lack of understanding of the deal by CSO groups.[119] Furthermore, in addressing a letter of concern written by Lukoil, one of the main partners in the DWTCTP block with Aker Energy, the Ministry of Energy also gave its backing to the deal by stating among others that *"GNPC has the necessary financial backing and technical competence to acquire the stakes under discussion and to participate in the operator company which will remain unchanged"*[120].

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[117] See https://www.myjoyonline.com/dr-theo-acheampong-8-public-interest-questions-on-proposed-1-65bn-aker-energy-agm-gnpc-farm-out-deal-for-dwt-ctp-and-sdwt-blocks/; https://www.myjoyonline.com/gnpc-aker-agm-deal-energy-minister-couldve-been-saved-from-lukoil-embarrassment-if-we-were-engaged-csos/ ; https://www.modernghana.com/news/1101854/asepa-14-csos-urge-parliament-to-scrutinize-gnpc.html; https://africaneyereport.com/piac-to-speak-on-aker-gnpc-deal-meets-gnpc-csos-this-week/

[118] See https://www.ghanaweb.com/GhanaHomePage/business/We-will-save-US-700-million-with-Aker-AGM-stake-acquisition-GNPC-to-CSOs-1328692

[119] See https://asaaseradio.com/k-k-sarpong-theres-lack-of-understanding-over-gnpc-and-aker-agm-deal/

[120] See https://thebftonline.com/2021/09/10/gnpc-has-expertise-to-acquire-stake-in-aker-agm-bloc-energy-minister

Box 2 – GNPC's Proposal to Acquire Additional Stakes in Existing Oilfields

In a memo dated 30 July 2021 to Parliament by the Minister of Energy and headed "**GNPC's Acquisition of Significant Stakes in the Deepwater Tano Cape Three Points and South Deepwater Tano"**, the Minister sought the approval of the House to consider and approve the following:

i. Acquisition by GNPC, through GNPC Explorco, of the following stakes:
   - 37% interest in Deep Water Tano/Cape Three Points (DWT/CTP) operated by Aker Energy Ghana Limited; and
   - 70% stake in the South Deep Water Tano (SDWT) operated by AGM Petroleum Ghana Limited.

ii. Establishment of a **joint operating company** between Aker Energy and AGM, and GNPC Explorco;

iii. Mandate the Minister for Energy and the Minister for Finance to a**gree on a purchase price with Aker Energy/AGM.**

iv. Provision of a loan not exceeding US$1.65 billion to finance the acquisition at a price to be **negotiated which might not exceed $1.3 billion** and **GNPC Explorco share of capital expenditure (CAPEX) to Pecan Phase 1 First Oil of $350 million**."

Primary reasons given for the deal included "Ghana faces the risk of stranded assets and dwindling proven reserves if GNPC is unable to undertake exploration, development and production alone. A declining
industry undermines growth, diminishes revenue expectations for Ghana, and makes redundant the stock of skilled labour in the industry, which Ghana has rapidly bult over the decade… This partnership has the potential to add more than 200,000 barrels of crude oil to Ghana's current production within the next 4 to 5 years."

The benefits of the proposed deal include, among others:

- "GNPC gets to build operator capacity at a critical time in history to ensure that the hydrocarbon resources in the country can be fully developed."
- "Ghana's crude oil production will increase by 140,000 to 200,000 bpd within 3 to 9 years."
- "A GNPC with operator capabilities will provide enhanced value creation for Ghana."
- "GNPC Explorco will recoup the capital expenditure as part of petroleum costs."
- "Loan offered to GNPC Explorco for the transaction can be repaid at First Oil through securitisation of crude oil entitlements."

Besides GNPC's primary exploration and production investments, the Corporation participates in various supply chain joint ventures (JVs) and data acquisition agreements.[121] This includes, for example, GNPC-TechnipFMC JV in engineering, procurement and construction (EPC) services in addition to other incorporated non-petroleum investments, such as mining, telecoms, hospitality and farming (Figure 24).

[121] See https://www.gnpcghana.com/investment.html

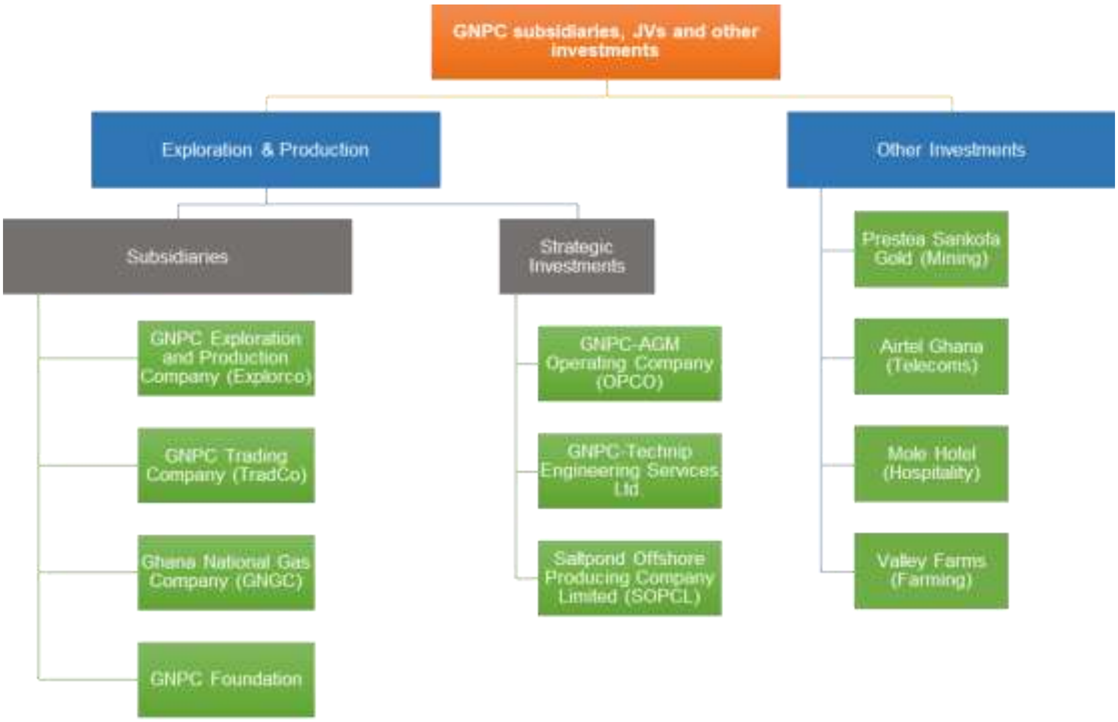

Figure 24: GNPC Subsidiaries and Joint Ventures

Source: Authors' construct based on GNPC Annual Reports

GNPC as a regulator (Pre-Petroleum Commission)

Before 2011, GNPC had the administrative responsibility for monitoring and regulating the industry on behalf of the Minister of Energy, the mandated regulator.[122] This was done through active resource management in promoting orderly and planned exploration and development of Ghana's petroleum resources, enforcing compliance to health, safety and environmental (HSE) protocols, and promoting local content through technology transfer and human resource development.

Various institutional reforms dealing with the realignment of mandates, laws and regulations were enacted to strengthen Ghana's oil and gas industry following the discovery of the Jubilee Field offshore Ghana in 2007 and the commercial production of oil and gas in Ghana in December 2010. Thus, with the passage of the *Petroleum Commission Act,* 2011 (Act 821), GNPC has been relieved of the de-facto responsibility for managing and regulating the exploitation of petroleum resources and coordinating related policies. Managing Ghana's upstream petroleum sector has been transferred to the Petroleum Commission.

[122] Stephens, Thomas Kojo. "In Their Name and for Their Welfare: Rethinking Ghana's Constitutional Provisions for the Natural Resource Sector in the Light of Ghana's Upstream Petroleum Industry." *U. Ghana LJ* 28 (2015): 159.; Stephens, T. Kojo. "Start, Proceed, Recalibrate: The Evolution and Evolvement of Ghana's National Petroleum Corporation." *Oil, Gas & Energy Law* 19, no. 3 (2021).; Tsatsu, T. (2022). Role and Contribution of The Ghana National Petroleum Corporation (GNPC) as a National Oil Company: A Reflection. In: Acheampong, T and Stephen TK. (eds) *Petroleum Resource Management in Africa: Examining the Lessons from Ten Years of Oil and Gas Production in Ghana*. Palgrave MacMillan (Forthcoming, 2022).

Together with the Ministry of Energy, the Commission handles all matters relating to the grant of licenses and permits, formulation of policies including HSE, local content and local participation and compliance monitoring.[123] Given such clarification of roles, GNPC's sole focus is acting as the Ghanaian State's representative in Petroleum Agreements, having free-carried and participating interests in all contracts and engaging in other joint ventures, as highlighted earlier.

4.2 GNPC petroleum revenue allocations analysis

According to Act 815 (as amended), all petroleum receipts, including royalties, carried interest, surface rentals, additional oil entitlement, dividends, corporate income tax, and other taxes must be first paid into the Petroleum Holding Fund (PHF), held at the Bank of Ghana. They are then disbursed based on the formula provided in the law in the following order of priority (Figure 25).[124]

- GNPC (NOC) Financing
- Annual Budget Funding Amount (ABFA)
- Ghana Petroleum Funds (GPF), namely comprising the Ghana Stabilisation Fund (GSF) and Ghana Heritage Fund (GHF)
- Exceptional Purposes Transfer

Payments from the PHF to GNPC are made to cover the operations and finance activities pertaining to GNPC's interests in PAs, such as meeting JV cash calls during production or paying for crude lifting costs. The PRMA assigns two levels of state funding (subvention) to GNPC:

- **Level A** – **Equity Financing Cost** from the payment of oil receipts into the PHF.

- **Level B** – **Operational Expenditure** (maximum of 55% of receipts of net cash flow from the CAPI); this can be ceded in cash or equivalent barrels of oil. In reality, the amounts allocated to GNPC as Level B funding has been at 30% of CAPI.

The amounts allocated to GNPC are reviewed every three years by the Parliament, which also approves the yearly programme of activities. As highlighted earlier in **Section 3.3**, Ghana's total oil revenues entitlements since the commencement of oil exports from 2011 to the end of 2020 is US$6.55 billion. Of these, GNPC has received 30% (US$2 billion) of this amount while the ABFA has been allocated 40% of the total. Also, the GSF has received 21% of total revenues, whereas the GHF has received 9%

[123] See http://www.petrocom.gov.gh/

[124] The PHF is the main account into which all petroleum revenues due to the State, which is assessed and collected by the Ghana Revenue Authority, are first lodged. The fund is located at the Bank of Ghana and monies paid into PHF are not kept there permanently but are disbursed according as per the rules in the PRMA. See pages 16 and 17: The Public Interest & Accountability Committee (2017) Simplified Guide to Petroleum Revenue Management in Ghana, June. Available online: http://www.piacghana.org/portal/files/downloads/simplified_guide_to_ghana's_petroleum.pdf

of the total allocation. Figure 26 shows the distribution of petroleum revenues from 2011 to 2020.

Given the priority allocated to GNPC in terms of allocation of petroleum receipts, including ahead of the saving and stabilisation funds, it is not surprising that stakeholders demand greater transparency and accountability regarding the use of petroleum receipts to fund its activities.

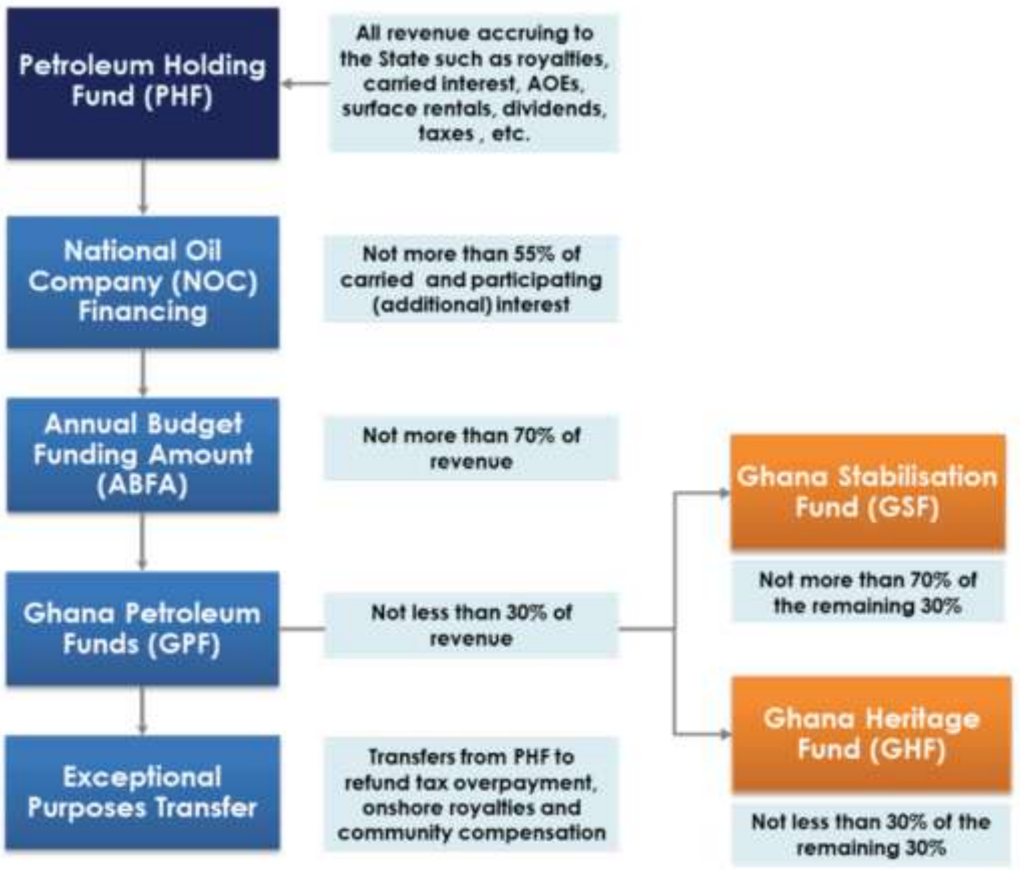

Figure 25: Outward Flows from the PHF

Source: PIAC, 2017

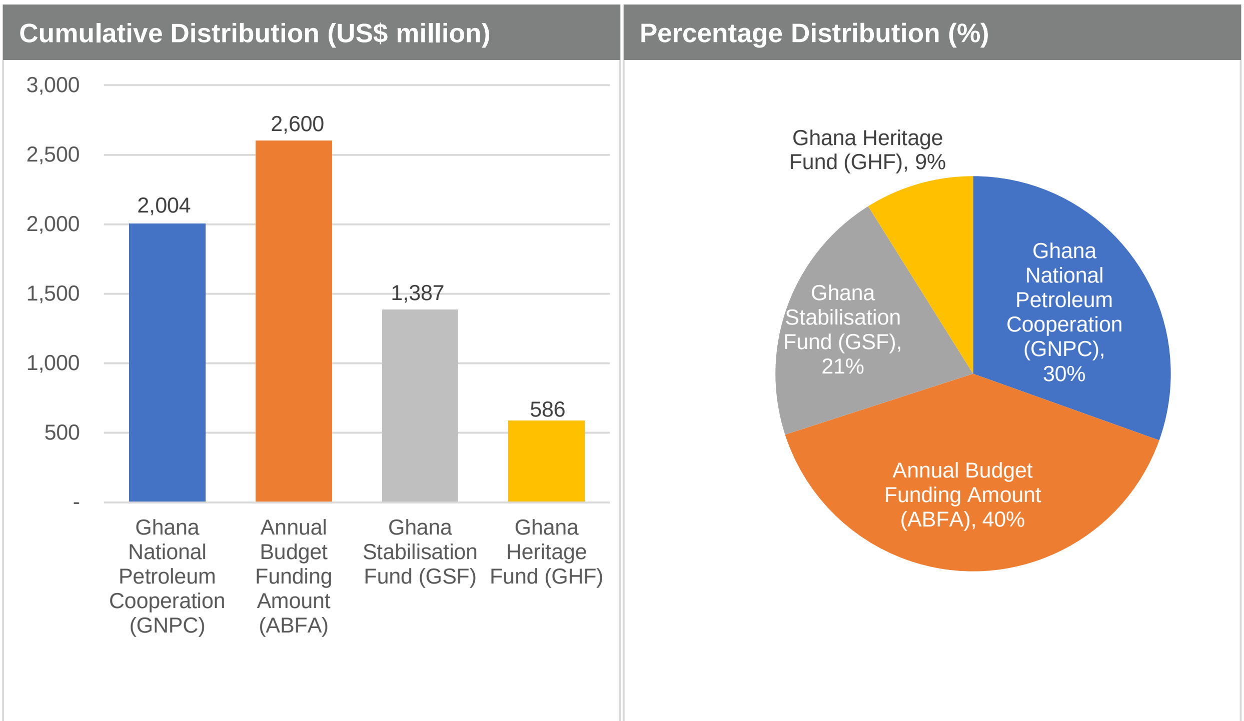

Figure 26: Distribution of petroleum receipts, 2011-2020

Source: Authors construct

4.2.1 *Funding analysis*

Transfers to the GNPC over the past ten years since the implementation of the PRMA has covered the Corporation's equity financing cost and a percentage of the net cash flow from CAPI, as provided for in Section 7(2) of Act 815 as amended. Accordingly, **GNPC's total equity financing costs (Level A receipts) amounted to US$1.14 billion over the period**, representing 55% of the total GNPC allocations (Table 13 and Figure 27). **Level B receipts for other expenditures such as staffing and other operational costs amounted to US$921 million** or 45% of total allocations (Table 13 and Figure 27).

Besides the equity financing costs, GNPC has utilised Level B funding for expenses (Table 14) such as:

- Exploration and development projects
- Staff costs
- Admin capital expenditure
- Capital projects
- General operational and administrative expenditure
- Gas project related costs
- Downstream project
- GOG Gas related payments-enclave roads
- Western Corridor Roads Payment
- Trafigura product trading payment
- Saltpond Offshore Producing Company Limited (SOPCL)

- Mid-Stream and other projects
- Repayment of loan for Karpower barge movement
- Sustainability and Stakeholder Relations and GNPC Foundation
- Subsidiary expenditure
- Loan advances to the Ministry of Finance
- Acquisition, processing and interpretation of 2,612 km2 of 3D Seismic Data for the South West Deep Tano Block
- Reservoir characterisation, Voltaian basin project, South Deepwater Tano projects, North & South Tano project expenses, ICT upgrade, organizational development
- TEN Project Cost
- Petroleum Projects Other than Jubilee (TEN, Sankofa Gye Nyame Projects)

In terms of the breakdown by field, Jubilee, by its longer production timespan, has generated the highest Levels A and B receipts, followed by TEN and SGN, respectively (Figure 28).

Table 13: GNPC equity financing costs and other expenditures (2011-2020)

Item	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Overall
Total Equity Financing Costs (Level A) (US$ million)	132.5	125.8	76.3	47.4	93.5	67.2	103.8	204.8	167.4	119.9	1,138.5
Total Other Expenditures (Level B) (US$ million)	75.5	43.4	66.1	87.8	96.5	77.3	67.3	145.6	111.1	150.5	921.2
Total (US$ million)	**208.0**	**169.3**	**142.4**	**135.2**	**190.0**	**144.5**	**171.0**	**350.5**	**278.5**	**270.4**	**2,059.8**
Total Equity Financing Costs (Level A) %	64%	74%	54%	35%	49%	47%	61%	58%	60%	44%	55%
Total Other Expenditures (Level B) %	36%	26%	46%	65%	51%	53%	39%	42%	40%	56%	45%
Total (%)	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Authors' construct, based on PIAC Annual Reports, and Ministry of Finance Annual Petroleum Reconciliation Reports

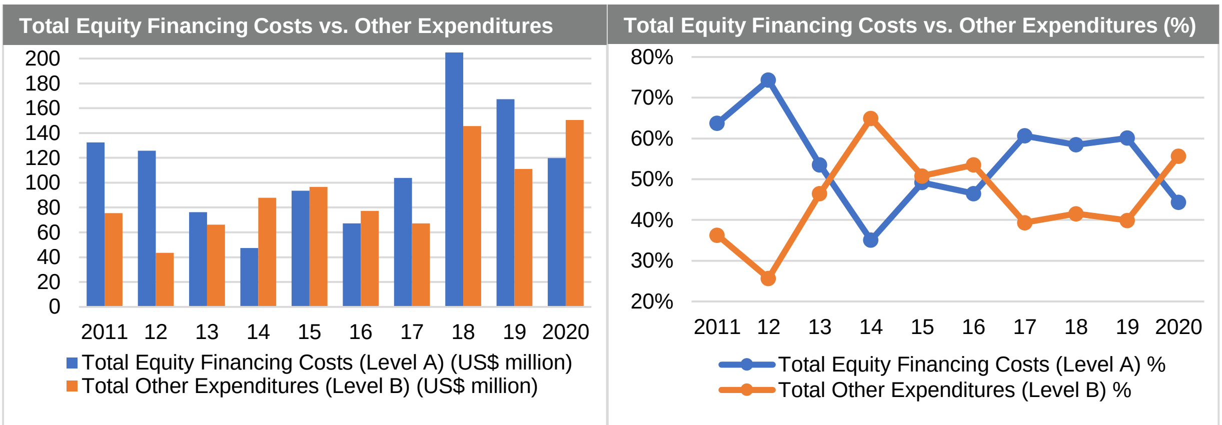

Figure 27: Total Equity Financing Costs vs Other Expenditures (US$ million and percent)

Source: Authors' construct, based on PIAC Annual Reports, and Ministry of Finance Annual Petroleum Reconciliation Reports

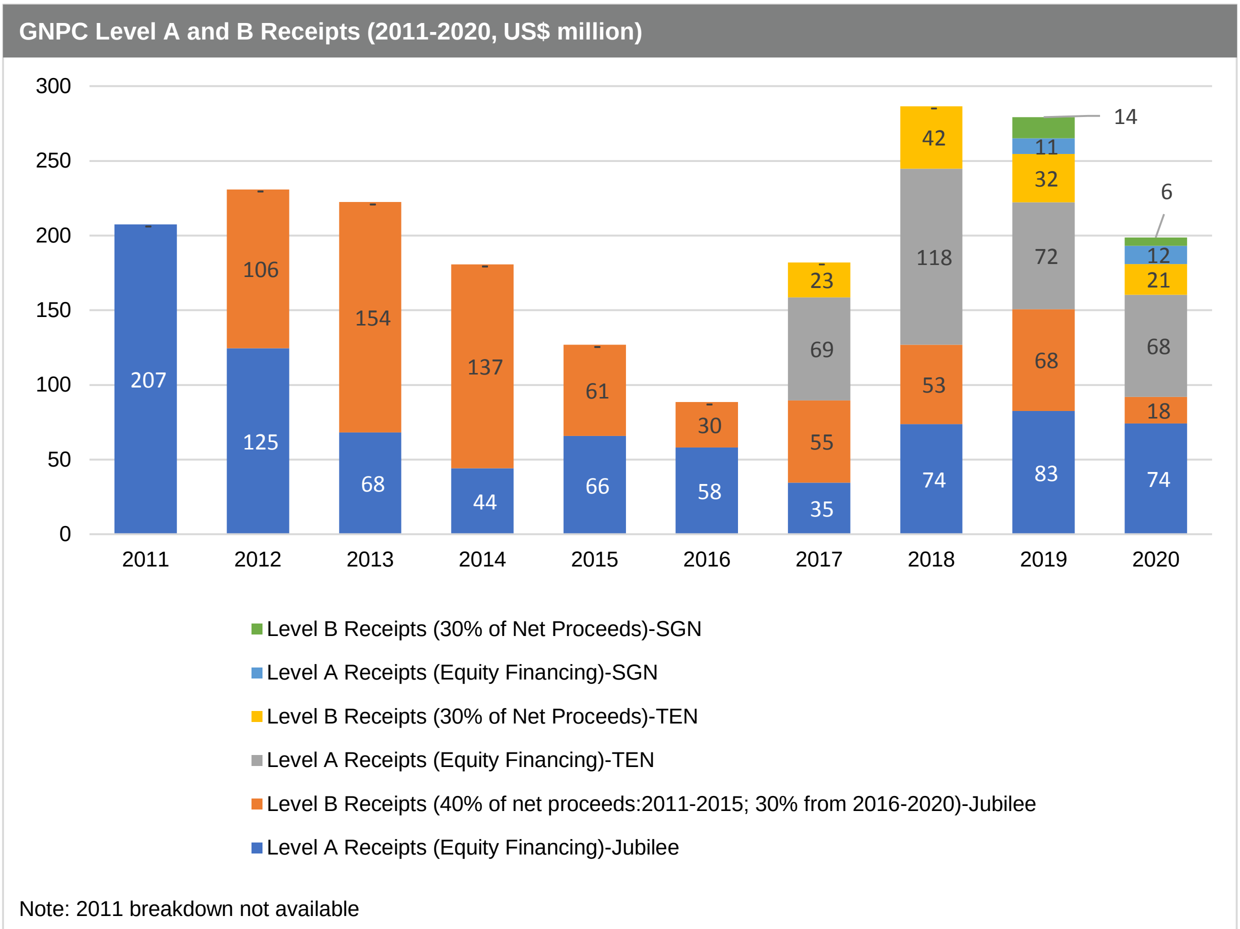

Figure 28: GNPC Level A and B Receipts (2011-2020, US$ million)

Table 14: Utilisation of GNPC's Share (US$ million)

#	Year=>	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1	Level A Receipts (Equity Financing)-Jubilee		124.63	68.32	44.16	65.91	58.11	34.61	73.80	82.62	74.23
2	Level B Receipts (40% of net proceeds:2011-2015; 30% from 2016-2020)-Jubilee		106.32	154.10	136.55	60.94	30.38	55.13	53.11	68.16	17.72
3	Level A Receipts (Equity Financing)-TEN	-	-	-	-	-	-	68.83	117.89	71.59	68.39
4	Level B Receipts (30% of Net Proceeds)-TEN	-	-	-	-	-	-	23.47	41.80	32.22	20.60
5	Level A Receipts (Equity Financing)-SGN	-	-	-	-	-	-	-	-	10.58	12.19
6	Level B Receipts (30% of Net Proceeds)-SGN	-	-	-	-	-	-	-	-	14.07	5.51
7	**Total Amounts Received (A)**	**-**	**230.95**	**222.42**	**180.71**	**126.86**	**88.50**	**182.04**	**286.60**	**279.23**	**198.65**
SRN	**Uses of Amounts Remitted**										
8	Jubilee Equity financing cost (Level A)	132.48	125.82	76.27	47.41	93.48	67.21	40.39	73.68	71.00	48.49
9	TEN Equity Financing Cost (Level A)							63.36	131.16	79.57	64.32
10	SGN Equity Financing Cost (Level A)									16.78	7.09
11	Exploration & Development Projects					17.32	25.58	19.07	47.47	28.70	17.15
12	Staff costs	7.66	9.01	9.70	8.81	10.23	16.40	13.92	24.29	21.70	22.94
13	Admin capital expenditure					4.77	2.22	0.68	6.69	1.21	1.20

14	Capital Projects					1.76	12.64	7.91	13.01	6.79	17.20
15	General operational and administrative expenditure	9.38	16.27	9.82	12.94	16.67	12.45	13.91	43.91	35.25	10.55
16	Gas project related costs	28.12	5.59								
17	Downstream project							4.85	4.70	14.20	
18	GOG Gas related payments-enclave roads							6.76	4.14	2.25	11.72
19	Western Corridor Roads Payment					25.98	7.58				
20	Trafigura product trading payment					18.75					
21	SOPCL					0.43	0.44	0.17	1.42	1.03	1.40
22	Mid-Stream & Other Projects										5.71
23	Repayment of loan for Karpower Barge Movement										14.56
24	Sustainability & Stakeholder Relations and GNPC Foundation										44.48
25	Subsidiary Expenditure										3.58
26	Amount Advanced to Ministry of Finance				50.00						
27	Acquisition, processing and interpretation of 2,612 km 2 of 3D Seismic Data for the South West Deep Tano Block	30.32									
28	Reservoir Characterization, Voltaian basin project, South Deep water Tano projects, North & South Tano		10.78								

	project expenses, ICT upgrade, organizational development										
29	TEN Project Cost			3.03							
30	Petroleum Projects Other than Jubilee (TEN, Sankofa Gye Nyame Projects)			9.92	14.23						
31	BNP Paribas			31.34							
32	Amount appropriated by Bank of Ghana as charges		1.80	2.32	1.81	0.63					
33	**Total Expenditure (B)**	**207.96**	**169.27**	**142.39**	**135.20**	**190.02**	**144.52**	**171.04**	**350.48**	**278.48**	**270.39**
34	**Total Cash on Hand (Committed to Projects/Deficit) (C=A-B)**		**61.68**	**80.03**	**45.52**	**-63.16**	**-56.03**	**11.00**	**-63.88**	**0.75**	**-71.74**
35	Add: Cash Brought Forward (D)			61.67	141.70	187.22	124.06	68.03	79.03	15.15	15.90
	Add: Internally Generated Funds (IGF)										58.02
36	**Total Cash-Available: (E=C+D)**		**61.68**	**141.70**	**187.22**	**124.06**	**68.03**	**79.03**	**15.15**	**15.90**	**2.18**

Source: Authors' construct, based on PIAC Annual Reports, and Ministry of Finance Annual Petroleum Reconciliation Reports

4.3 GNPC political economy analysis

This section of the report elaborates more on the political economy factors that drive GNPC's operations and outcomes. The Problem-Driven Political Economy Analysis (PDPEA) is used to understand the root causes of the issues and identify the range of possible intervention areas. For this analysis, we focus on the following:

- GNPC quasi-fiscal expenditures
- GNPC capacity building initiatives
- GNPC corporate management
- GNPC staffing

To further contextualise the findings, one needs to understand the nature of State-NOC relationships within the existing political settlements system. Ghana's political settlements regime, which is "how the balance of power between different groups in a geographic setting shapes the types of institutions that arise, and how such institutions function in practice"[125], has been characterised as 'competitive clientelist' involving intense electoral competition between the NPP and NDC, Ghana's two dominant parties in the Fourth Republic (1993-date)[126]. Such competition has fostered a 'winner takes all' mentality to governance whereby both parties are ultimately interested in capturing Executive Power (the Presidency) and all allied state institutions to perpetuate clientelist privileges, which includes the distribution of patronage to reward local elites and other actors.[127] Such politics of resource-patronage has manifested in all strata of Ghanaian society, including at GNPC, the national oil company, leading overall to sub-optimal governance and resource management outcomes such as in licensing.[128]

Ghana can broadly be classified as an allocation state whereby state stability is maintained primarily through the distribution of rents from cocoa, gold, and oil exports (Figure 29). However, compared to an extraction state, government attempts to channel its spending for development, although this also enriches the political and business elite. Within this context, GNPC also operates as a Statist Bureaucracy by contributing to the development of oil and gas assets while delivering revenues and patronage for the State and the elites.

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[125] MH Khan, 'Political Settlements and the Analysis of Institutions' (2018) 117(469) African Affairs 636–55
[126] G Mohan and K Asante, 'Transnational Capital and the Political Settlement of Ghana's Oil Economy'; A Bebbington and others, *Governing Extractive Industries: Politics, Histories, Ideas* (OUP 2018) 304.; L Whitfield, 'Competitive Clientelism, Easy Financing and Weak Capitalists: The Contemporary Political Settlement in Ghana', DIIS Working paper No 2011: 27
[127] Stephens, T. K., & Acheampong, T. (2021). Does the politics matter? Legal and political economy analysis of contracting decisions in Ghana's upstream oil and gas industry. *The Journal of World Energy Law & Business*.
[128] Ibid (n 127)

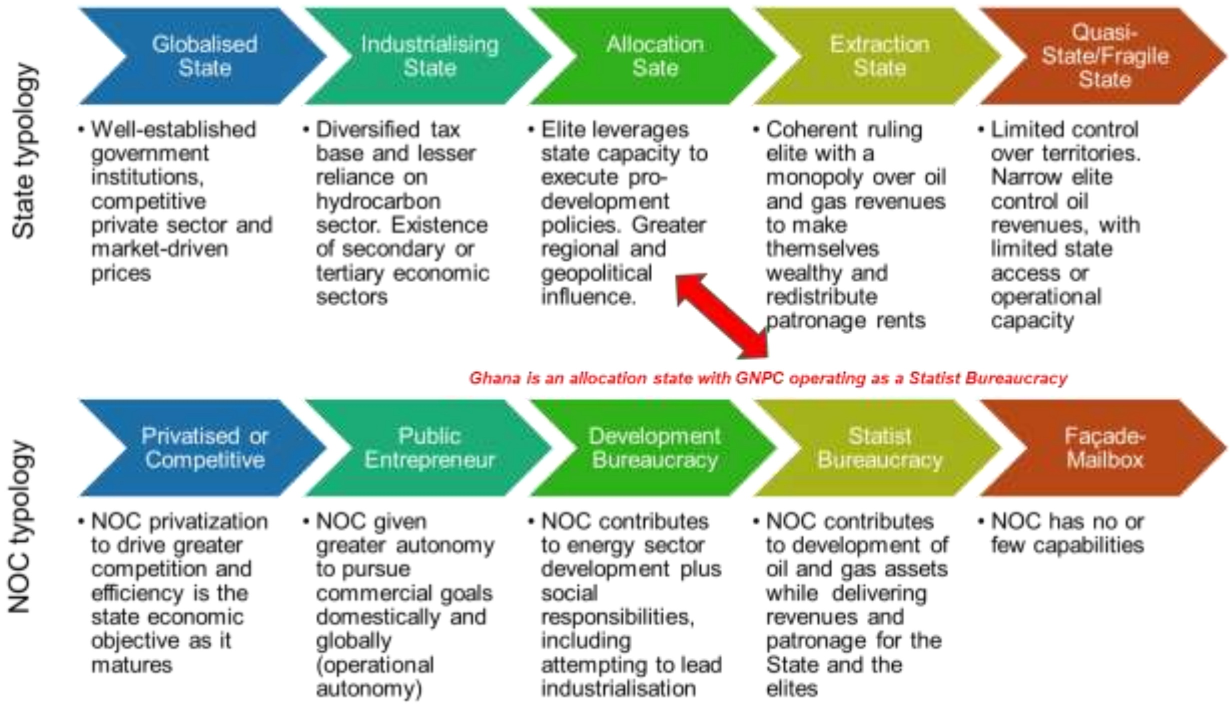

Figure 29: State-NOC relationship

Source: Adapted from IHS Markit

4.3.1 *GNPC quasi-fiscal expenditures*

The fiscal relationship between an NOC and the State encompasses the payment of royalties and taxes from a nation's oil entitlements as well as dividends and other transfers from the NOC to the Government Treasury (Figure 30). The State subsequently also allows transfers from the Treasury to fund the NOCs operations, including even bailouts when needed. The NOC, with its strategic position, has a national mission that includes seeking to secure a greater share of local content, employment for locals, domestic supply obligations, among others.[129]

[129] Tordo, S. (2011). *National oil companies and value creation*. World Bank Publications.

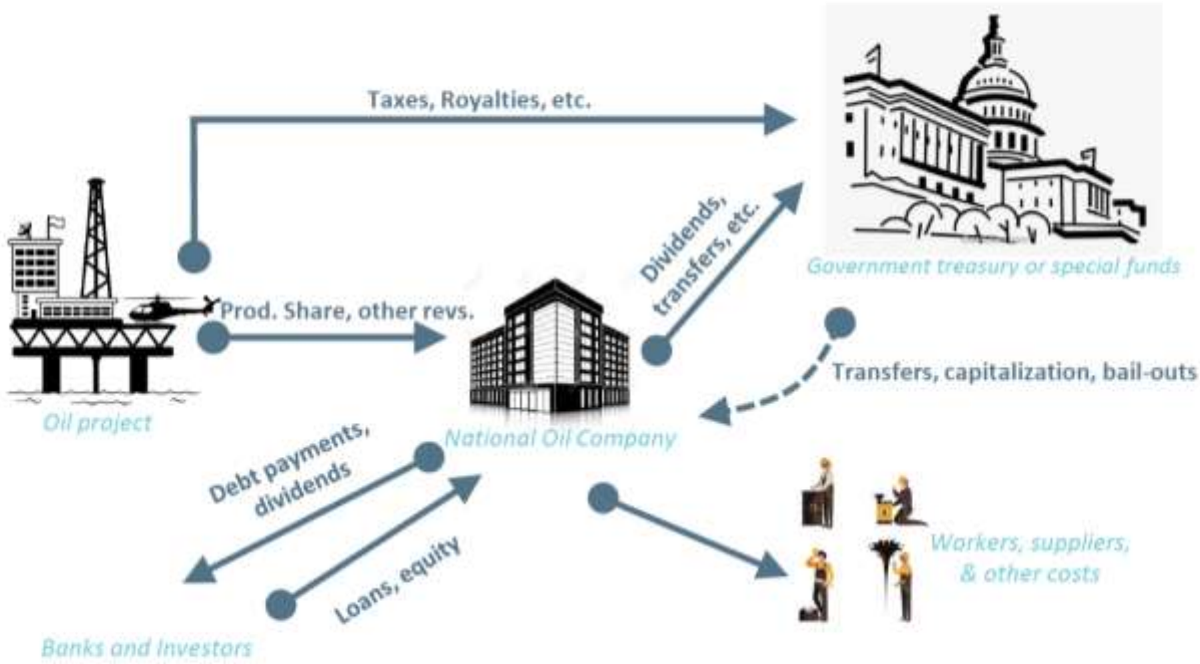

Figure 30: The Fiscal Relationship between NOCs and the State

Source: Heller (2021: p.18)[130]

Analysing the data and trends over the past ten years reveals that GNPC has been used to meet other government priorities/needs/programmes, which are not aligned with the letter and spirit of the NOC's mandate as defined in PNDCL 64. For example, GNPC has over the years been used to make payments and guarantees made on behalf of other agencies, national and local infrastructure projects, as illustrated in Table 15. **In essence, the Corporation is subject to external interference or political capture, which often compels it to undertake quasi-fiscal expenditures and advances to other parastatals**. For example, between 2015 and 2020, GNPC provided a reported US$17.19 million and GHS25.90 million to fund various enclave roads in the Western Region under the purview of the Ministry of Finance. The Corporation also provided payment of US$200 million of guarantees in respect of heavy fuel oil (HFO) supply commitments from Litasco, a trading firm, to the Electricity Company of Ghana (ECG). Furthermore, the government through GNPC took a loan facility from Litasco on behalf of the Bulk Oil Storage and Transportation Company Limited (BOST) for USD100 million at 3-months LIBOR plus 4%, which is being serviced at eight equal instalments of US$14 million on every due date.[131] As of 2020, the US$21.30 million outstanding balance on this transaction was reported as "MoF BOST Under-recoveries".[132]

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[130] Heller, P. (2020). Evolving trends: COVID 19, energy transition and national oil company strategy. National Stakeholder Conversation on the Ghana National Petroleum Corporation.

[131] Malden, A. and Gyeyir, D. (2020). Ghana's Oil Sales: Using Commodity Trading Data for Accountability. Available: https://resourcegovernance.org/sites/default/files/documents/ghana-oil-sales-using-commodity-trading-data-for-accountability.pdf; See also https://www.ghanaweb.com/GhanaHomePage/business/We-did-nothing-wrong-GNPC-683605

[132] See PIAC 2020 Annual Report: pg. 97

Other examples include a 2016 PIAC investigation that revealed that the TEN crude oil was being undersold. This followed public displeasure regarding the persistent lower than average achieved prices for TEN crude compared to others. While there were initial denials, it was later established that other transactions (namely, Karpowership Guarantee and HFO supply deal) had been comingled with the negotiations around the pricing options. The Ministry of Finance, in July 2018, queried GNPC as to how it reportedly lost US$34 million of oil revenues from under-pricing TEN crude sold via Litasco. GNPC explained that the discounts were reasonable more so within the context that it "*presented Ghana with **significant benefits** which far exceed any perceived losses from sale of the TEN crude oil as portrayed*"[133]. This was because Litasco had other business dealings with the Ghanaian government, which involves the company providing other financial services such as advanced loan payments and repayment guarantees highlighted above.

Table 15: Payments and guarantees made on behalf of other agencies, government national and local infrastructure projects

AGENCY	OUTSTANDING BALANCE (US$)	DATE RECEIVABLE CRYSTALISED
Government of Ghana	23,217,406.00	
MoF Enclave Roads (GHS)	26,901,979.64	2015 to Date
MoF Enclave Roads (US$)	17,188,682.54	2015 to Date
Advance to Ministry of Finance	50,000,000.00	2014
Tema Oil Refinery	58,404,875.00	2011
ECG - BG Related Charges	4,966,027.40	2015-2017
GNGC - 14km Offshore Pipeline	37,913,333.00	2010
MOE Current Account (GCB Bank Loan)	14,557,168.12	2018/19
*OCTP Escrow	100,000,000.00	
ECG HFO Commitment (Litasco)	200,000,000.00	Secured August 2020**
MoF BOST Under-recoveries	21,300,000.00	2015
Sub-Total	**554,449,471.70**	
Volta River Authority	253,503,285.68	Ongoing
*** Total Outstanding Receivables form GNGC	564,126,696.02	Ongoing
Sub-Total	**817,629,981.70**	
****Karpower Guarantees	145,500,000.00	
Sub-Total	**145,500,000.00**	
GRAND TOTAL	**1,517,579,453.40**	

Notes:
*OCTP Escrow – Represents funds put in an escrow for security that contractors have utilised because of non-payment by users
** Date financing procured for a 3-year tenor
*** The figures are being reconciled
****The Karpower Guarantees are Contingent Liabilities. The Issuance Fees are paid by GoG when they fall due.

Source: PIAC 2020 Annual Report; pg. 97 & Feedback from GNPC

[133] See https://citinewsroom.com/2018/09/discounted-crude-oil-sales-justified-finance-ministry-erred-gnpc/

Other concerns that have been raised by various stakeholders, including PIAC, regarding GNPC's other expenditures include the **NOC's increasing corporate social responsibility (CSR) investments —** such as the US$3 million funding of Ghana's national football team (The Black Stars) and US$44.48 million on Sustainability & Stakeholder Relations and GNPC Foundation in 2020.

The diversion of these funds into other quasi-fiscal expenditures have impacted the ability of GNPC to meet its core business needs in some of the years under review. For example, PIAC, in its 2017 and 2018 report, expressed concern about GNPC's inability to meet SGN cash calls, leading to a suspension of lifting rights in respect of CAPI under the JOA and lifting agreements. As a result, the other Partners lifted Ghana Group's share of 1,853,785 bbls of crude oil worth US$141.32 million to offset unpaid cash calls.[134] PIAC went further to note that:

> *"The offset is done on a monthly basis. As of 31st December 2018, the quantity of crude oil applied to amortise both Production Cost (OPEX) and Development Cost (CAPEX) amounted to 2,685,772 barrels. This is two (2) liftings, worth approximately US$191.53 million. The outstanding balance at the end of the year was US$41.15 million."*

In its defence, GNPC argues that these extra expenditures conform with its broader developmental mandate as a national oil company specified under Sections 2 and 3 of PNDCL64. This includes the mandate to (1) "ensure that Ghana obtains the greatest possible benefits from the development of its petroleum resources"; (2) "ensure the training of citizens of Ghana and the development of national capabilities in all aspects of petroleum operations"; and (3) "engage in such other activities, either alone or in association with others, as may be necessary or desirable for the carrying out of petroleum operations", among others.

Under this broader developmental mandate, GNPC in 2018 created and funded US$1-million professorial chairs for research and development in four public universities in Ghana.[135] These are:

- Chair in Petroleum Engineering at The Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi.[136]
- Chair in Mining Engineering at The University of Mines and Technology (UMaT) in Tarkwa[137]

[134] PIAC 2018 Annual Report: pg. 13
[135] See https://www.graphic.com.gh/news/general-news/gnpc-sets-up-professorial-chairs-in-4-universities.html; https://www.ghanaweb.com/GhanaHomePage/NewsArchive/GNPC-commits-1million-dollars-to-professorial-chair-643691
[136] See https://www.modernghana.com/news/869159/professorial-research-chair-in-petroleum-engineeri.html
[137] See https://umat.edu.gh/index.php/media-press/happenings/news-events/738-gnpc-ghana-foundation-presents-cheque-of-$250,000-for-umat-chair-in-mining-engineering

- Chair in Petroleum Geoscience at The University of Ghana, Legon, Accra.[138]
- Chair in Petroleum Commerce at The University of Cape Coast (UCC) in Cape Coast.[139]

Most recently, in August 2020, GNPC further announced its commitment to finance a new US$5 million GNPC Institute of Law and Governance at the University of Cape Coast.[140]

Nevertheless, interviews with various respondents also remarked that the above positives pale compared to the broader issue of quasi-fiscal expenditures, leading most to remark that GNPC has not demonstrated much prudence in its investments over the years. The national oil company maintains a considerable portfolio of non-performing assets on its books, and the rationale for doing so is still unclear. These include Sankofa Goldfields, Airtel, Mole Motel, among others.

In this regard, there is a strong recommendation for an amendment to the GNPC Act to control its other expenditures (Level B funding), as highlighted in the comment below:

> *"Parliament can probably tighten the GNPC law. The expenditures GNPC has to spend need to be tightened. Parliament should push GNPC to create a fund for its routine oil expenditures. Another radical way of doing it is for parliament to say, as it has been done now with CSOs and the rest, you cannot spend more than 2.5% of the budget on administrative expenses or so much percentage. I think that Parliament should put a cap on the amount because it is alarming the amount taken under the "other category" in 2020."*

4.3.2 *GNPC capacity building initiatives (becoming a world-class operator)*

GNPC has, since the commencement of oil production, advertised its strategic intent of seeking to grow reserves and specifically become an operator. Specifically, in 2016, the Corporation launched a new strategic vision (Figure 31) dubbed "the accelerated growth strategy" based on four pillars, namely:

i. ***Building capacity and expanding activities –*** Investing systematically and prudently in building operating capability to manage a wider portfolio of producing assets.
ii. ***Replacing and growing reserves –*** Investing in high impact initiatives for the replacement and growth of reserves.
iii. ***Efficient capitalisation and optimum participation –*** Securing capital at the lowest possible cost to maintain an optimum level of participation in petroleum operations.

[138] See https://www.ug.edu.gh/news/gnpc-presents-us25000000-research-chair-petroleum-geoscience
[139] See https://ucc.edu.gh/press-release/prof-omowumi-o-iledare-gnpc-professorial-chair-oil-and-gas-ucc
[140] See https://www.ghanaweb.com/GhanaHomePage/NewsArchive/GNPC-building-US-5-million-Institute-of-Law-and-Governance-at-UCC-1340503

iv. ***Catalysing local content development –*** Expediting the creation of an appropriate environment for Ghanaian participation in the upstream sector of the petroleum industry.

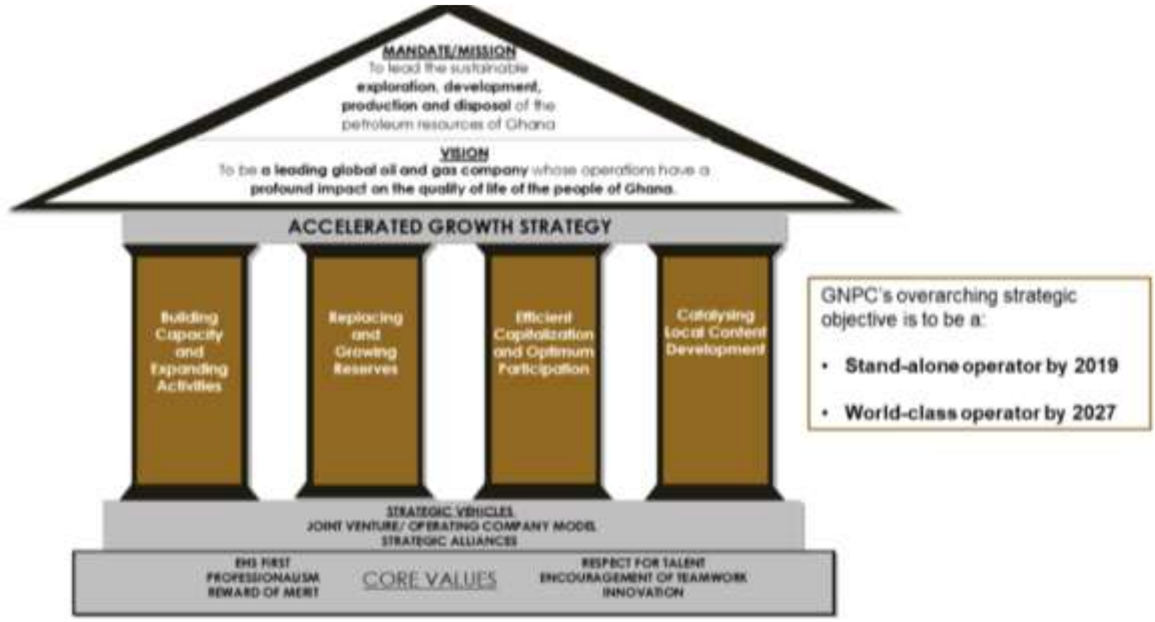

Figure 31: GNPC Accelerated Growth Strategy

Source: GNPC Corporate Presentation (2016)

These moves are also driven by the fact that after 2026, GNPC's finances are likely to be further constrained by the dictates of the PRMA (as amended). Section 7(3) of the PRMA states that "for a period not **exceeding fifteen years** after the commencement of the PRMA, the cash or the equivalent in barrels of oil ceded to GNPC shall not be more than 55% of the net cash flow from the carried and participating interests (CAPI) after deducting the equity financing cost and be reviewed every three years by Parliament". This makes 2026 the earliest date for reviewing the upper limit for funding the national oil company. In this regard, there could be limited or moderate government support to GNPC or none at all. Thus, the national oil company will be required to stand on its own and do some of the things it wants to, albeit still maximising revenue generation to the State.

Given the foregoing, GNPC "aspires to be a standalone operator by 2019 and a world-class operator by 2027". To accomplish the above, the focus has shifted in the past few years on becoming an operator and also controlling producing assets, as Figure 32 shows. These sentiments are echoed in the interview remarks from the Corporation below:

> *"I don't think we [GNPC] can become an operator just holding to carried interest because the carried is held on behalf of the state and is one reason why GNPC is pushing to take commercial interest in some of the other blocks/fields with higher prospectivity. And so, what we [GNPC] did recently with Jubilee and TEN is part of the strategy; the broad strategy that we have in mapping our commercial interest as far as our participation in some of these fields are concerned."*

> *"We need to ring-fence the commercial interests that we [GNPC] take. They should not be treated as business as usual as part of the carried interest. They need to be seen and managed separately. In that sense GNPC should not act any different from the IOCs. Any commercial interest that are taken also needs to be treated differently. So, in that case, we could borrow against it [securitise it] as the other IOCs do with reserve-based lending. Once we do that, we will have a very good platform to raise money to finance our operations and be more operationally independent."*

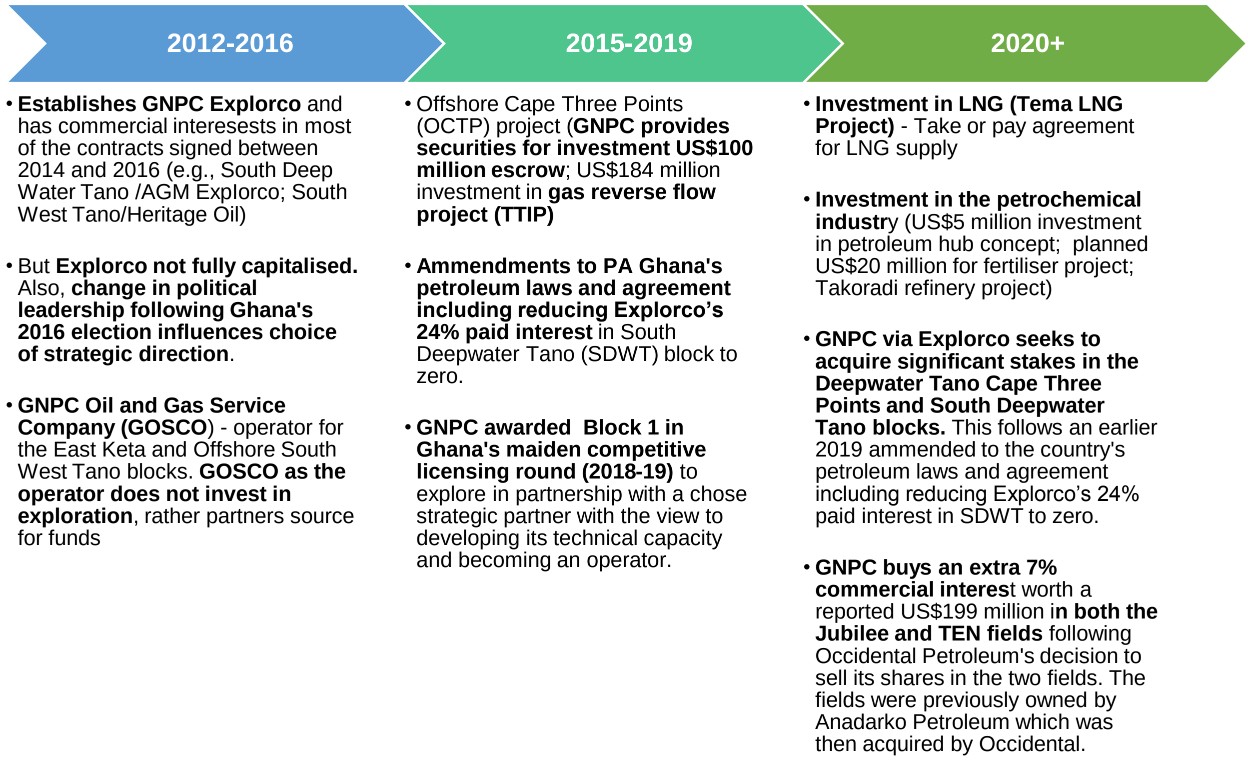

Figure 32: GNPC Roadmap to becoming a standalone and world-class operator

Source: Adapted from Boakye (2021)[141] and Manteaw (2021)[142]

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[141] Boakye, B. (2020). The GNPC Now and the Future: Reflection on the Corporation's economic performance, strategic choices and trade-offs, policy recommendations for sustainability. Africa Centre for Energy Policy (ACEP)
[142] Manteaw, S. (2021). Trade Offs and Strategic Choices for Sustaining GNPC Beyond 2026: An Evaluation of the Corporation's Allocations and Efficiency of Spending. ISODEC/GHEITI

Nevertheless, the ability of the Corporation to prudently manage its finances will determine whether the national oil company will be able to meet these lofty ambitions and thus fend for itself beyond 2026. The evidence base (see Table 14 and 15 above) after ten years of oil and gas production and exports shows that GNPC's financial solvency, which used to be relatively sound (better cash reserves) in the first few years of post-commercial oil production, has significantly dwindled in the past few years. The Corporation requested a bailout from the government in 2020.[143]

4.3.3 *GNPC corporate governance*

Appointment to the GNPC Board is governed by Sections 5 and 6 of PNDCL 64, which stipulates that GNPC's Board of Directors shall include the Chief Executive Officer and six (6) other persons, one of whom acts as Board Chair. These persons are **all appointed by the President on the advice of the Minister of Energy.** The reality is that persons often affiliated with the ruling administration are appointed to the Board. Under Section 8 of PNDCL 64, the Board of Directors has overall control of the business, management, property and funds of the Corporation. Board members are mandated to hold office for two successive three (3) year periods.

This is further compounded by the fact that PNDCL 64 does not provide enough details on qualifying criteria to include technical competency in the extractives industry for Board appointments (Table 16)**.** Section 3 of PNDCL 64 only states that "The Chairman and the other members to be appointed under subsection (l) (c) of this section shall be appointed from among persons who by **virtue of their careers in the government or public service or of their specialised knowledge** are capable of contributing to the work of the Board of Directors". Regarding the qualifying criteria, Section 6 of PNDCL 64 only provides for a requirement to be a citizen of Ghana, not have a criminal conviction (sentenced to death or to a term of imprisonment exceeding twelve months without the option of a fine), nor have been convicted of an offence involving dishonesty or declared an insolvent or a bankrupt, among others.

Hence, the law is often used as an avenue by the ruling administration to ensure the Board is filled by persons with strong allegiances to the party. For example, **Freddie Blay**, the current GNPC Board Chair, is also the Chairman of the ruling National Patriotic Party (NPP).[144] Similarly, during the previous National Democratic Congress (NDC) regime from 2009-2016, Board Chairs and members included **Joe Oteng-Adjei** (former energy minister) and **Cadman Mills** (brother of the late former President John Atta-Mills).

The governance challenges at the NOC is captured in this stakeholder remark:

> *"If you look at places like Malaysia, where they've had state owned, or state interested oil companies that have been used as channels for transformative*

[143] Ibid (n 142)
[144] https://www.gnpcghana.com/board_members.html

development. Unfortunately, that is not the case with Ghana's parastatals, including GNPC. Political cronies are often sent there, and they don't account to anybody. For example, many at times the GNPC Boss may be more powerful than the Minister of Energy and this can create conflict… So clearly, the GNPC is seen as a big reward to somebody who obviously contributes to party financing or something. The NOC is not treated like we want to strategically use this GNPC thing to drive development".

Another factor is that the GNPC Board does not have any institutional representation. In contrast, the Petroleum Commission Board has representation from the Environmental Protection Agency, the Institution of Geoscientists, and three other persons, one of whom must be a woman.[145]

The Ministry of Finance, with IMF support, has commenced corporate governance reforms at the Corporation (and other parastatals). However, results are yet to be fully manifested in the organisation's financial and other governance metrics. Nevertheless, the Corporation is of the view that these reforms are already yielding some positive results, as the remark below shows:

"There are a series of programs that the Ministry of Finance are doing for Board members, including board evaluations. Also, certain targets and key governance indicators are being regulated, such as how much a board member can take as a sitting allowance and honorarium. We welcome such regulations and such calls to be accountable to the people of Ghana."

In going further to recommend institutionalisation of these programmes, another external respondent remarked:

"The most critical part is that PIAC and other such governance institutions can also liaise with the Ministry of Finance and the appointing bodies to set up the criteria or template for which institutions get what type of Boards and the means of evaluating said Board performance."

[145] Section 4 of Act 821

Table 16: GNPC internal governance structure

Independent Directors & Expertise	Structure & Appointment Authority	Duties of the Board	Board Committees	Term of Service
6 — Current independent directors (6) have experience in legal, broadcasting and chieftaincy matters.	• Board of Directors include the Board Chairman, Chief Executive Officer and six (6) other persons • The President appoints all the Board of Directors on the advice of the Minister of Energy	• The Board of Directors have general control of the management, property, business and funds of the Corporation and any other affairs and concerns thereof. • This includes submitting to the Minister of Energy the annual report and the annual balance sheet, and the profit and loss statement of the Corporation • Submitting to the Minister of Energy the terms and conditions for the sale, distribution and export of crude oil and petroleum products • Preparing budget and work programme for the succeeding financial year • Approve income and expenditure in the budget, among others	• Governance and Legal • Finance and Commerce • Brand, Communication and CSR • Human Resource and Administration • Audit, Compliance and Risk • Technical Operations	Two successive three (3) year periods each

Source: Authors' construct, based on PNDCL 64

4.3.4 *GNPC staffing*

Another area for which GNPC has often been criticised is the Corporation's overheads, particularly staff costs. As Figure 33 shows, GNPC's staff costs have increased by 11.59% annually (CAGR) from US$7.66 million in 2011 to US$22.94 million in 2020. Staff costs in the period 2011-2016 averaged US$10.30 million while averaging US$20.72 million from 2017-2020. Staff costs saw a significant spike, especially after 2018, where they have consistently been over US$20 million (Figure 33).

A likely reason for the astronomical increase in payroll costs is the Corporation's staff increment over the years. Available reports indicate that staff levels have increased almost two-fold in the past decade, rising from a total staff strength of 207 people in 2011 to 530 staff as of end-2020 (Table 17). This increase in staff strength means that unit staff costs have increased by 17% from US$37,010 per person in 2011 to US$43,288 per person as of 2020 (Table 17). The average unit staff cost from 2011-2020 was US$42,042.

The obvious question this raises is whether this is indicative of over-bloating at the Corporation and if this is having a resultant effect on bottom-line productivity and efficiency. In other words: are there too many idle hands at the Corporation?

Table 17: GNPC Staffing (2011-2020)

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total number of employees [A]	207	227	251	263	288	296	344	450	506	530
Disaggregated by occupational rank										
Management staff	10	11	14	15	17	22	26	38	33	30
Senior staff	168	186	207	217	240	252	294	386	435	463
Junior Staff	29	30	30	31	31	22	24	26	38	37
Disaggregated by gender										
Male	164	173	192	200	212	214	238	305	345	359
Female	43	54	59	63	76	82	106	145	161	171
Total staff costs [B] (US$ million)	7.66	9.01	9.70	8.81	10.23	16.40	13.92	24.29	21.70	22.94
Cost per staff [C = B/A], US$ per year	37,010	39,705	38,625	33,503	35,531	55,416	40,470	53,987	42,891	43,288

Source: GNPC 2022

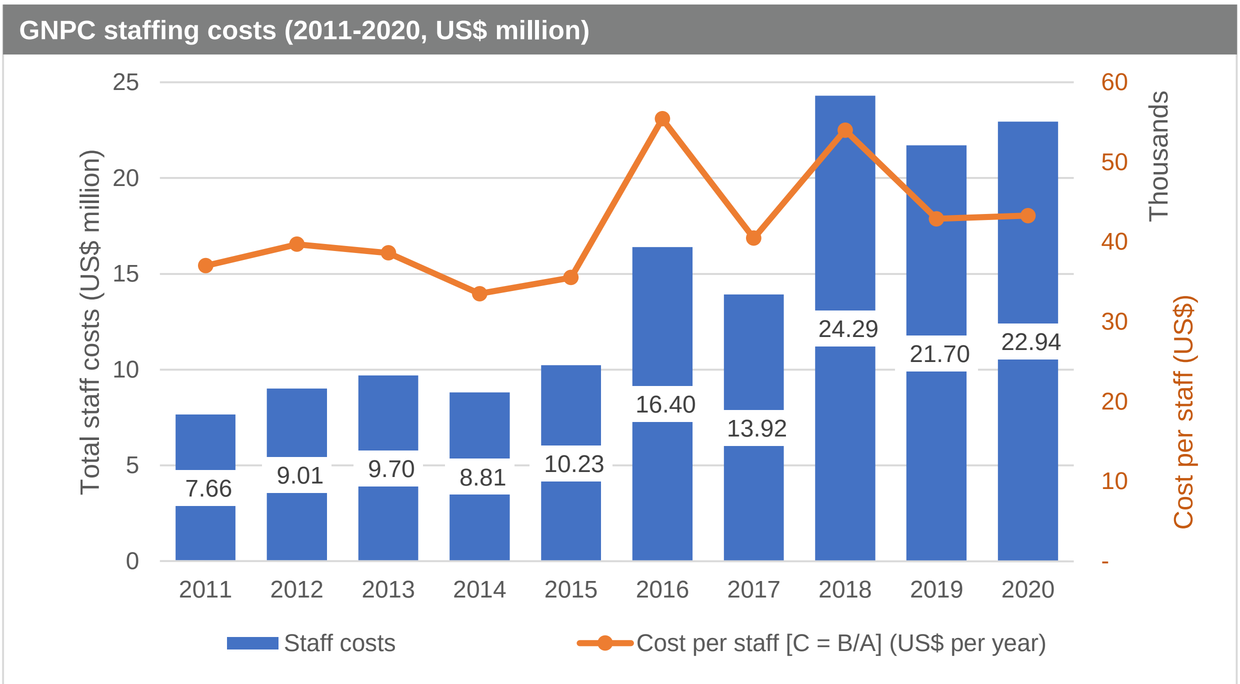

Figure 33: GNPC staff costs (2011-2020, US$ million)

4.4 Conclusion

The Ghana National Petroleum Corporation was established in 1983 under the *Ghana National Petroleum Corporation Act,* 1983 (PNDCL 64). The requirements of the law meant that GNPC operated as a commercial entity, but the realities of the time also necessitated that GNPC also performed some de-facto regulatory functions under the control of the mandated regulator, the Ministry, as well as advisory functions to the Ministry. With the formation of the Petroleum Commission, GNPC is to focus primarily on its commercial role.

GNPC maintains relationships with various parties, including the people of Ghana through the government and statutory state institutions such as the Ministry of Energy, Ministry of Finance, Parliament, Petroleum Commission and SIGA. Other stakeholders include various accountability institutions such as the Public Accountability Committee (PIAC), the Auditor General, local and foreign partners, including the IOCs and service companies.

Most recently, over the past ten-plus years, GNPC has sought to maintain a sole focus on this commercial mandate by forming joint ventures and other forms of cooperation with international or local partners, particularly with IOCs and major supply chain companies.

Of Ghana's US$6.55 billion total oil revenue entitlements since the commencement of oil exports from 2011 to 2020, GNPC has received 30% (US$2 billion) of this amount, representing both equity financing costs (Level A receipts) and other operational expenses (Level B receipts). GNPC's total equity financing costs (Level A receipts) amounted to US$1.14 billion over the period, representing 55% of the total GNPC allocations. Level B receipts for other expenditures such as staffing and other operational costs amounted to US$921 million or 45% of total allocations.

Almost everywhere globally, States see their NOCs as vehicles for national development. So, in that sense, there are things that the NOCs end up doing that may not necessarily be perceived as really core to their operations – that is, outside of its core mandate. This political economy dynamic means that sometimes NOCs do not have much of a choice if the State wants them to undertake certain initiatives, which sometimes runs against the organisational core mandate. This certainly has been the case at GNPC, which has over the past ten years, funded various quasi-fiscal expenditures — such as payment guarantees for power procurement and MoF enclave roads — at the behest of the State. As a respondent poignantly remarked: *your very existence and survival depends on the State. So, if the State wants you to do something, can anybody then say that they will not do it?*

In essence, the Corporation is subject to external interference or political capture, which often compels it to undertake quasi-fiscal expenditures and make financial advances to other parastatals; these are not aligned with the letter and spirit of the NOC's mandate as defined in PNDCL 64. The diversion of these funds into other quasi-fiscal expenditures have impacted on the ability of GNPC to meets its core business needs in some of the years under review. Section 4(2) of the GNPC Act enjoins the Corporation to operate in a profitable manner to generate sufficient "net operating income" to meet interest payments on loans and borrowings, increase its working capital, replace fixed assets and equipment, and contribute to any welfare or provident fund established by the Corporation, among others.

Despite GNPC being allocated the second-highest share of petroleum revenues over the period, several respondents indicated that the Corporation has not demonstrated much prudence in its investments over the years. GNPC used to be more financially sound in the first few years of post-commercial oil production with better cash reserves, but this strength has been eroded in recent years, as the data shows. This has and can further hurt the Corporation's aspirations of becoming an independent and world-class operator by 2027. There is thus the need for the Corporation to streamline its portfolio of investments against its receivables and undertake other corporate governance reforms.

5 Impact of Petroleum Revenues on Ghana's Socio-Economy and Real Sector

This section covers

- Analysis of the disbursement and utilisation of the ABFA including the three core themes of public investments, consumption (recurrent spending) and PIAC Funding
- ABFA spending analysis in priority areas
- Political economy analysis of the macro and spatial impact of ABFA spending
- Impact multiplier commentary and summary of findings from comprehensive literature review of published works on the impact of petroleum revenues on Ghana's real sector.

This section combines both a review of the base data, survey responses, and systematic literature review of published works to assess the impact of oil and gas on Ghana's socio-economy. It addresses the following, as per the allocation criteria defined under the PRMA:

- Has ABFA maximised the rate of economic development?
- Has ABFA promoted equality of economic opportunity?
- Has ABFA been used to undertake an even and balanced development of the regions?
- Have ABFA allocations and disbursements been guided by a medium term expenditure framework (MTEF) aligned with a long term national development plan?

5.1 Economic context before and after first oil

Before oil and gas discovery in 2007, Ghana's Macroeconomic fundamentals were mending, after six years into the implementation of the IMF's Enhanced HIPC Initiative[146]. The economy grew at an average of 6% between 2004 and 2008 (Figure 34), inflation averaged 13.6% marking a significant reduction compared to late 1990s, overall gross international reserves increased from US$1.7 billion in 2004 to US$2.8 billion in 2007, even though its overall import cover reduced from 3 months to 1.8 months. The overall economic outlook was promising especially after the implementation of HIPC as macroeconomic indicators remained positive. International Credit Rating Agencies affirmed Ghana's outlook and increased their ratings to B+. The country was inching

[146] IMF's Press Release on Ghana's Admission into Enhanced HIPC Initiative (2002). Accessed on https://www.imf.org/en/News/Articles/2015/09/14/01/49/pr0211

towards IMF and World Bank's Lower Middle-Income category. In fact, the positive outlook led to Ghana's first Eurobond transaction in 2007, an amount of US$750 million for a 10-year tenure.

The positive economic outlook, coupled with the discovery of oil and gas in 2007, heightened public expectations, donor partners and investor confidence in the economy even though the necessary legal and systematic measures had not been established to ensure benefits of oil and gas were efficiently managed and distributed. It is understood from interviewees that Ghana was likened to the Asian Tigers and posted as the Star of Africa. Indeed, Ghana's Former President, John Agyekum Kufuor, at the formal announcement of the first commercial oil discovery in the country on 19 June 2007, famously remarked in a BBC interview[147] that:

> *"Even without oil, we are doing so well... With oil as a shot in the arm, we're going to fly… We're going to really zoom… you come back in five years, and you'll see that Ghana truly is the African tiger, in economic terms for development… Oil is money, and we need money to do the schools, the roads, the hospitals… I assure you that if others failed, Ghana will succeed because this is our destiny to set the good pace for where we are. So, we're going to use it well."*

Between 2009 and 2010, the World Bank projected Ghana earning over a billion dollars of revenues from just the Jubilee Field along from 2011 onwards.[148] A 2009 report stated, among others that:

> *"Based on the fiscal regime in place, and a price assumption of US$75 per barrel the World Bank's central estimate puts potential government revenue at US$1.0 billion on average per year between 2011 and 2029….At US$50 per barrel, government revenue would go down to an average of US$0.4 billion per year; at US$100 per barrel, government revenue would conversely go up to an average of US$1.6 billion per year. Besides, higher cost of extraction could also significantly impact revenue."*

Indeed, initial investments in the oil and gas sector contributed significantly to GDP growth between 2009 and 2013; however, the slump in crude oil prices from 2014 led to a negative oil induced growth in 2016 (Figure 34). Also, the suggested minimum US$1 billion of government revenues from 2011 onwards never materialised

[147] See http://news.bbc.co.uk/1/hi/world/africa/6766527.stm

[148] World Bank (2009). Economy-Wide Impact of Oil Discovery in Ghana. https://documents1.worldbank.org/curated/en/752921468030343049/pdf/473210ESW0P1121IC0disclosed03111101.pdf; and World Bank (2010). Project Appraisal Document on a Proposed Credit in the Amount Of SDR 24.2 Million (Us$38 Million Equivalent) to The Republic Of Ghana for a Oil and Gas Capacity Building Project. Available at:https://documents1.worldbank.org/curated/en/752921468030343049/pdf/473210ESW0P1121IC0disclosed03111101.pdf

due to the oil price slump and significant cost recoveries associated with the Jubilee remedial works, as explained earlier in Section 3.1.1. In fact, the closest Ghana got to was US$978 million in 2014 when oil prices traded around US$98 per barrel (Figure 35). Thus, the World Bank's central scenario of average government revenues of US$1.4 billion per annum between 2011 and 2018 never happened.[149]

In other words, the heightened expectations or sense of euphoria of Ghana "zooming" and becoming the "*African tiger*" is still yet to happen, ten years down the line. Ghana, like other emerging prospective petroleum producers mostly in Africa, fell victim to the presource curse, whereby the elation of potential oil revenues being used for development is often met with significant disappointment.[150] Arguably, oil induced growth has not been inclusive as initially anticipated. For example, Ghana's human Development Indicators have been relatively stagnant in the ten years post-oil (Figure 36); poverty and inequality in both rural and urban areas is rising.[151]

Some stakeholder views also capture the narrative of Ghana becoming victim to the ***presource course***:

> *"Oil and gas was presented as Ghana entering some golden age of transformation. Everybody started doing oil and gas master's degree. There was a lot of talk about Ghana becoming an African tiger, among others. However, when you look at what we were going to produce, it was not even 20% of Nigeria's output even with the most optimistic projections. So where from that optimism? Once expectations are heightened, you over promise, you're going to have a certain feeling of disappointment."*

> *"There was a supposed migration to Takoradi, leading to some level of property boom and all of that. Because we overhyped the thing, basically people who live in and close to the oil enclaves in the Western Region have probably been made poorer, because you can't even rent a house in some parts of Takoradi any longer because the 'oil and gas people' are coming. I feel particularly in the first few years, expectations were poorly managed"*

> *"Ghana and the whole world got excited in 2007 with the Jubilee discovery; We should ask ourselves what has happened? We are supposed to be moving*

[149] Mihalyi, D., & Scurfield, T. (2021). How Africa's prospective petroleum producers fell victim to the presource curse. *The Extractive Industries and Society*, *8*(1), 220-232.

[150] Bauer, A. and Mihalyi, D., 2018. Premature Funds: How Overenthusiasm and Bad Advice Can Leave Countries Poorer. NRGI; Frynas, J.G. and Buur, L., 2020. The presource curse in Africa: Economic and political effects of anticipating natural resource revenues. *The Extractive Industries and Society*, *7*(4), pp.1257-1270.; Cust, J. and Mihalyi, D., 2017. The presource curse: Oil discoveries can lead first to jubilation then to economic jeopardy. *Finance & Development*, *54*(004).

[151] UNICEF (2016)The Ghana poverty and Inequality Report, 2016. https://www.unicef.org/ghana/media/531/file/The%20Ghana%20Poverty%20and%20Inequality%20Report.pdf

forward, we were supposed to be making impressive strides. But it's not happening.”

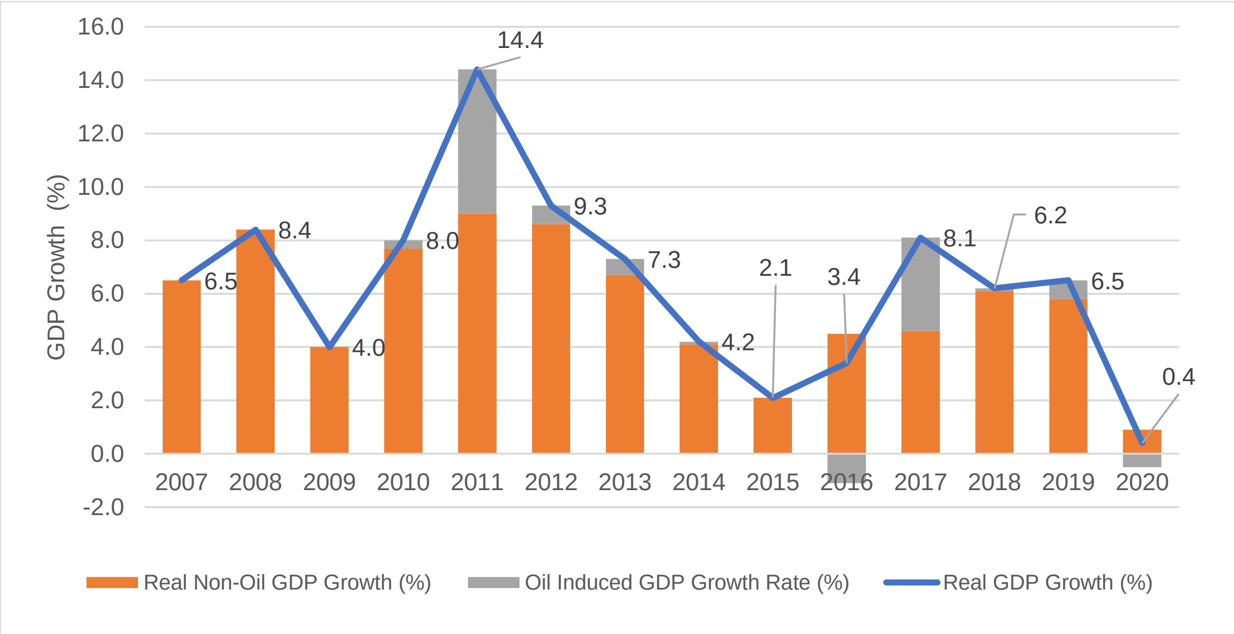

Figure 34: Oil Induced GDP Growth vs Non-Oil GDP Growth (2007 -2020)

Source: Author’s construct based on data extracted from Bank of Ghana Reports

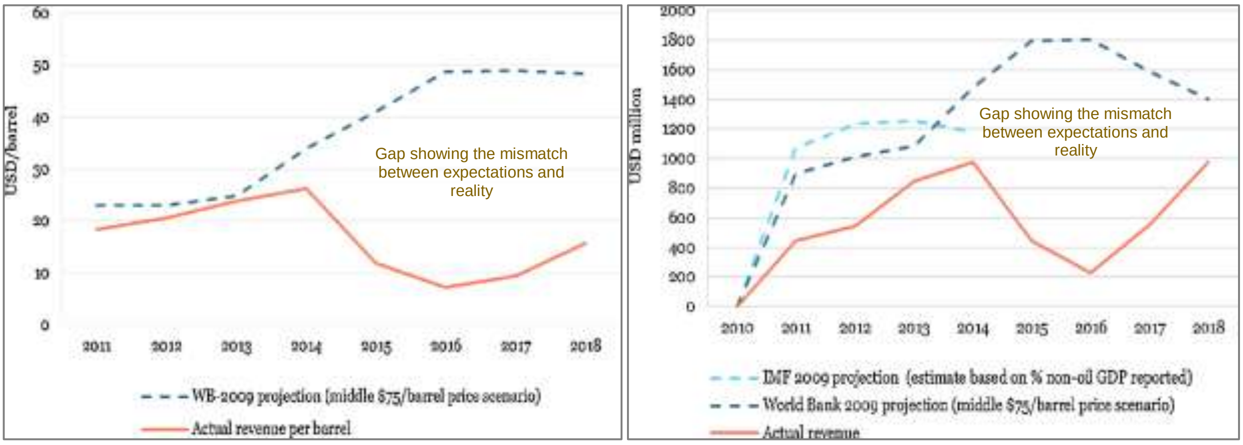

Figure 35: Ghana oil revenues: projected versus actual, per barrel and US$ million

Source: Mihalyi & Scurfield (2021: p.226)[152]

[152] Mihalyi, D., & Scurfield, T. (2021). How Africa's prospective petroleum producers fell victim to the presource curse. *The Extractive Industries and Society*, *8*(1), 220-232.

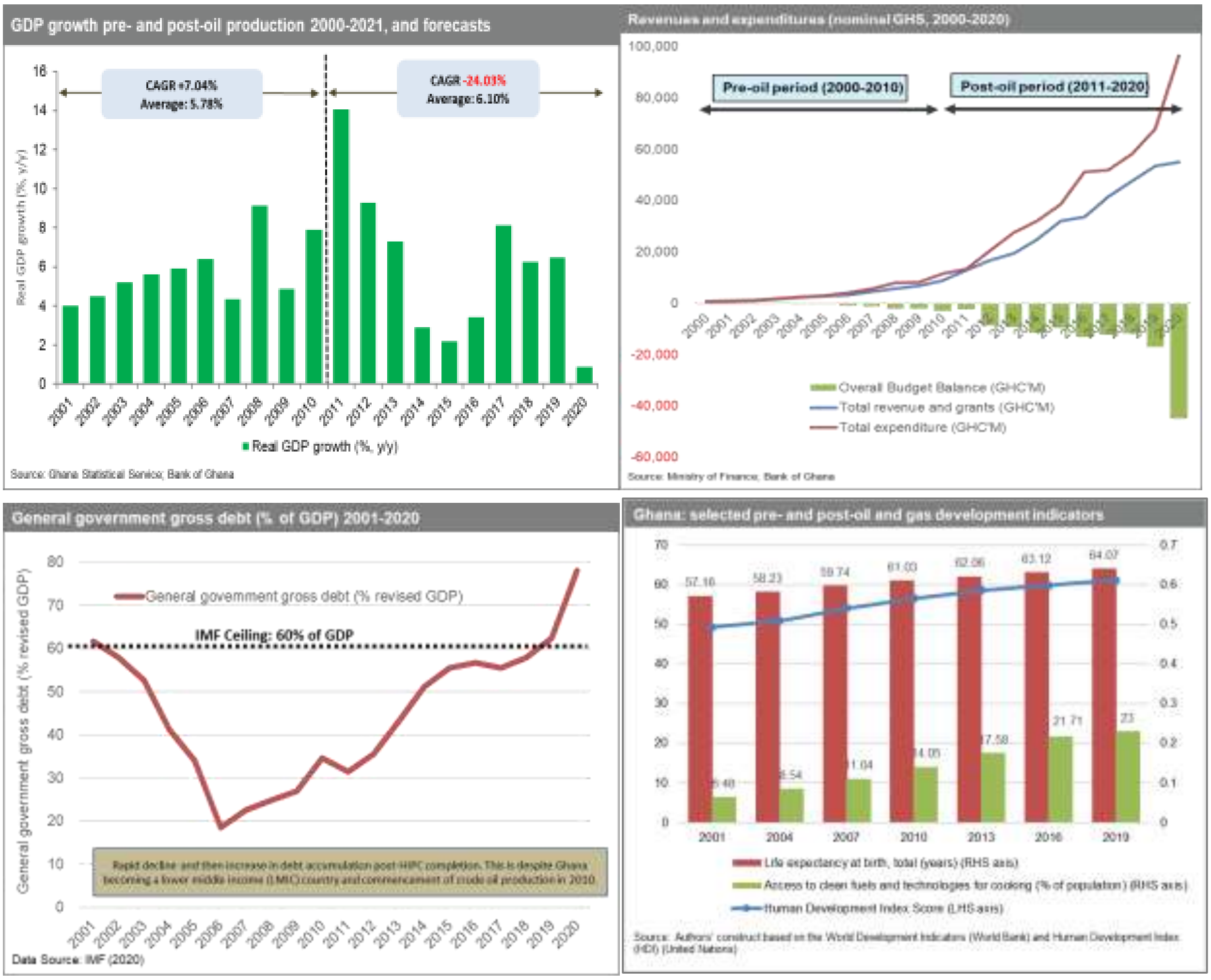

Figure 36: Dashboard of selected economic indicators

5.2 Analysis of the disbursement and utilisation of the ABFA

Before first oil, most stakeholders consulted (including professional bodies, civil society, government agencies at national and subnational levels, traditional authorities, media, among others) were aware of the need to use expected petroleum revenues to enhance efficiency in public spending to generate optimal returns. Ultimately, the expectations were that petroleum revenues spent through the budget would create an additional revenue source for government to increase its public investments to generate higher socioeconomic returns. As a result, to the ordinary Ghanaian, more monies would be spent on infrastructural developments, creating more job opportunities to maximise their well-being and ensure equitable enjoyment of any potential benefits. These expectations are consistent with best practices as resource revenues are an opportunity for governments to increase their capacity to undertake public spending and increase the capacity of the economy to absorb further investment[153].

Under the PRMA, ABFA is the main conduit for petroleum revenue financing under the national budget. In practice, it presents the strongest link between petroleum revenues and inclusive economic growth. Accordingly, its use and expenditures are required to be subject to the same budgetary processes[154], notwithstanding the PRMA places particular emphasis on the need to ensure efficient allocation, responsible use, and effective monitoring of ABFA expenditure. As a result, the PRMA (as amended) underscores the importance of proper planning and prioritisation of budget expenditures, thereby suggesting ABFA expenditures to be guided with a medium-term development strategy aligned with a long-term development plan. ABFA spending falls along three core themes: public investments (capital spending including allocations to the Ghana Infrastructure Investment Fund (GIIF), consumption (recurrent spending) and PIAC Funding. Within public investments and consumption (and in the absence of a long-term development plan), twelve (12) priority areas are to guide revenue utilisation, as shown in Figure 37**.** These are:

i. *Agriculture and industry*
ii. *Physical infrastructure and service delivery in education, science and technology*
iii. *Potable water delivery and sanitation*
iv. *Infrastructure development in telecommunication, road, rail and port*
v. *Physical infrastructure and service delivery in health*
vi. *Housing delivery*
vii. *Environmental protection, sustainable utilisation, and protection of natural resources*
viii. *Rural development*
ix. *Developing alternative energy sources*
x. *Strengthening of institutions of government concerned with governance and the maintenance of law and order*
xi. *Public safety and security*
xii. *Provision of social welfare and the protection of the physically disabled and disadvantaged citizens.*

However, the government is enjoined to prioritise not more than four (4) areas when submitting a programme of activities to use petroleum revenues. The selected priority areas are to be reviewed every three years and presented to Parliament for approval by the Minister for Finance before implementation. The annual expenditure of ABFA over the four priority areas aims to maximise the rate of economic development, promote equality of economic opportunities, and ensure a balanced development of administrational regions in Ghana (Figure 37).

[153] Natural Resource Charter (2014) Second Edition https://resourcegovernance.org/sites/default/files/NRCJ1193_natural_resource_charter_19.6.14.pdf
[154] Petroleum Revenue Management Act, 2011 (Act 815) Section 21. https://www.mofep.gov.gh/sites/default/files/acts/Petroleum-Revenue-Management-ACT-815.pdf

This section assesses the extent to which ABFA has achieved its objectives and expectations in the last decade, especially its efficient allocation, responsible use and effective monitoring.

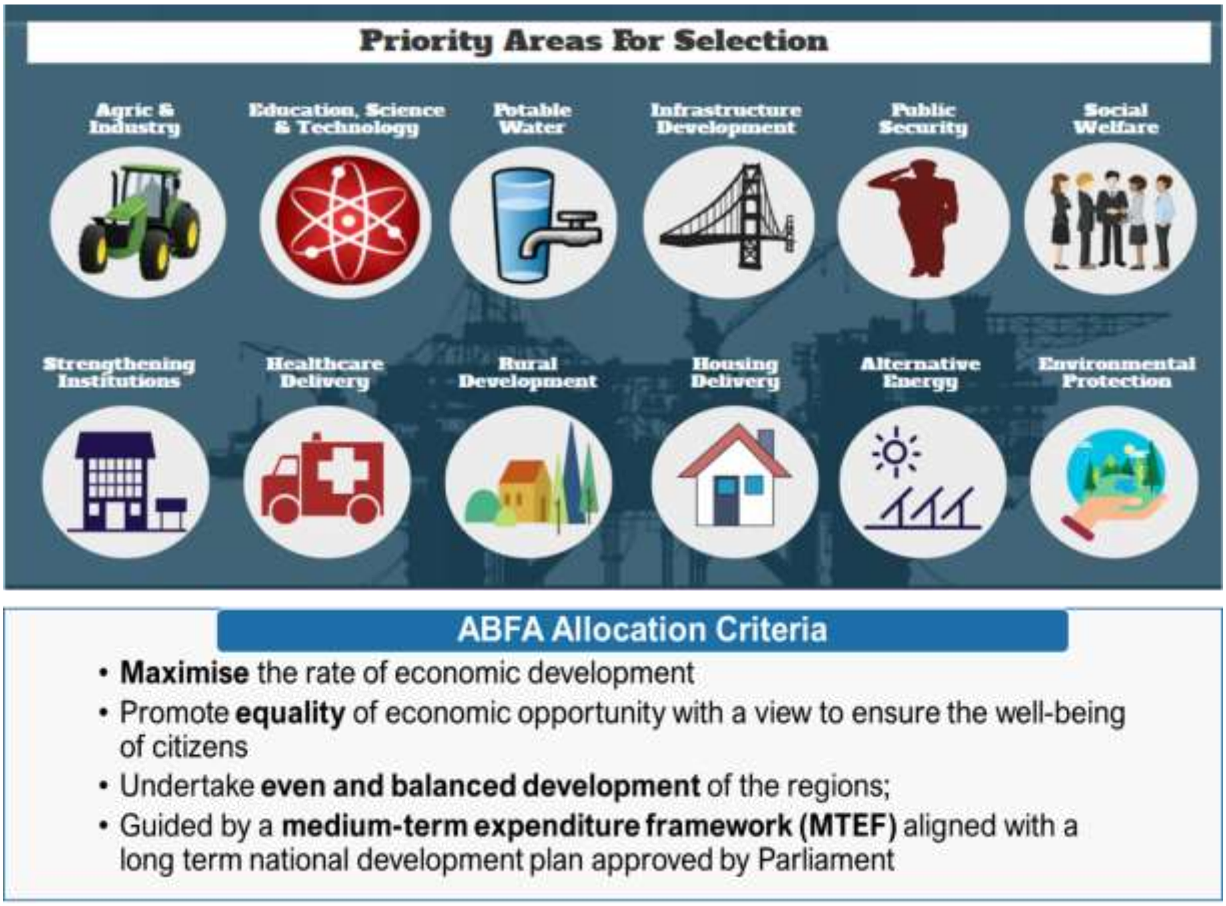

Figure 37: PRMA priority areas and allocation criteria

Source: Authors' construct based on PIAC Simplified Guide (2017)

5.2.1 *ABFA Institutional Arrangements*

The Ministry of Finance has ultimate responsibility for the governance of ABFA, including distribution of revenues from PHF to ABFA, allocations to priority areas, disbursements, reporting, and monitoring of the use of ABFA by beneficiary agencies (Figure 38)**.** The Energy and Petroleum Unit (EPU) formed after the passage of the PRMA, coordinates inter and intra agency matters on ABFA and lead on reporting and monitoring of ABFA projects. Specifically, the unit is responsible for generating reports on inflows and outflow into ABFA during the presentation of the annual budget to Parliament, quarterly petroleum receipts and distribution reports, as well as annual reconciliation reports on the management of petroleum funds, including detailed information on the balance of actual receipts and disbursements of ABFA, and description and status of projects. These reports are regularly published and publicly available on the Ministry of Finance's website at https://mofep.gov.gh/publications/petroleum-reports.

The Public Expenditure Management Unit (PEMU) under the Ministry of Finance performs disbursement duties regarding ABFA. To ensure that ABFA generates the necessary optimal returns as intended in Section 21 of the PRMA, the unit works with beneficiary agencies to ensure they apply ABFA to qualifying line items in their budget. As per section 21(4) of the Act, a minimum of 70% of ABFA is expected to be spent on public investments in any given year to maximise the impact of the use of ABFA. This is interpreted by most stakeholders (especially stakeholders who were directly involved in the drafting of the Act) to mean spending a minimum of 70% on capital expenditure and the remaining 30% on recurrent expenditure. Further, the unit reviews ABFA funded projects to ensure they are aligned with beneficiary agencies' medium-term development frameworks.

Since 2011, over 20 petroleum revenue management reports, including quarterly reports, annual reports and reconciliation reports, have been produced by the Ministry of Finance. The reports usually cover:

- Receipts into and transfers from the Petroleum Holding Fund (PHF)
- Deposits into the Ghana Petroleum Funds (GPFs), namely, the Ghana Stabilisation Fund (GSF) and the Ghana Heritage Fund (GHF)
- Status of the audited report on the Petroleum Funds for the year under-reporting
- A Balance Sheet for GPFs during the year under reporting, including a note listing the qualifying instruments of the GPFs.
- Information on the status of implementation of ABFA funded for the year under reporting.

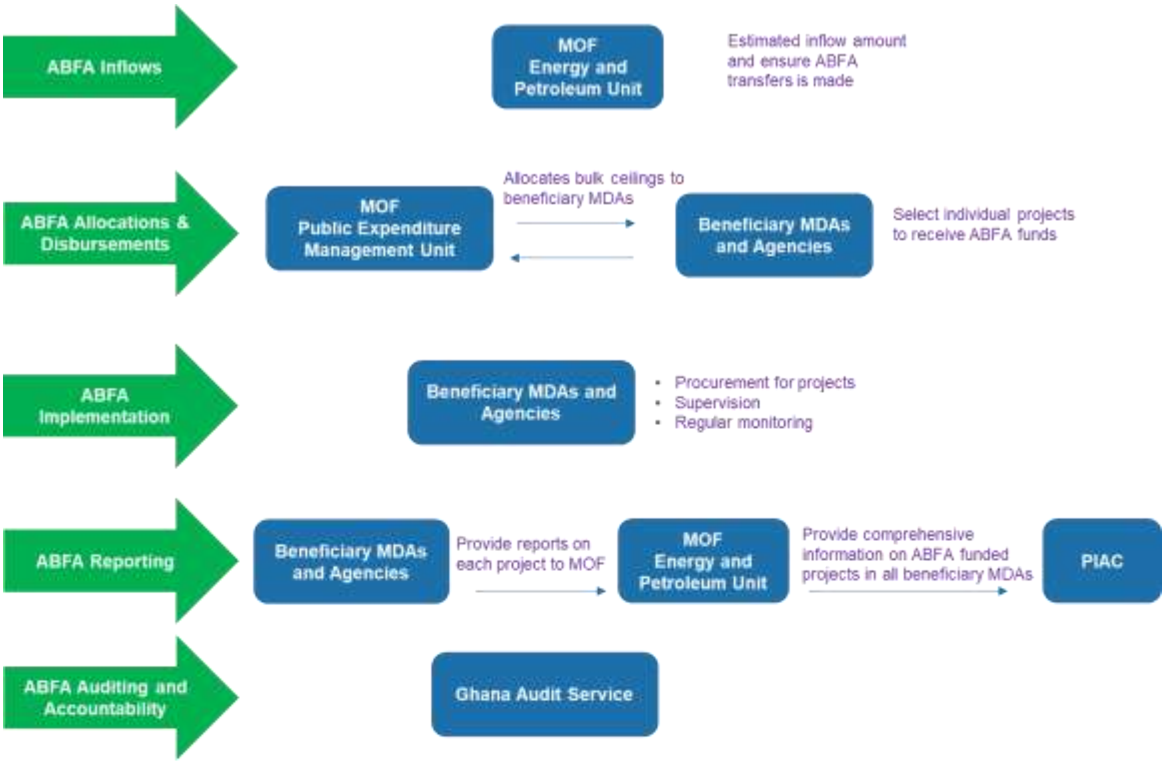

Figure 38: ABFA Institutional Arrangements

Source: Authors' construct based on Ministry of Finance (2021)

5.2.2 *ABFA Allocations and Disbursements*

ABFA derives its inflows from allocations from the PHF based on benchmark revenue estimation or actual petroleum receipts. Benchmark revenue projections (petroleum revenues net the allocation to GNPC) is based on a legally mandated formula stipulated in section 17 of the PRMA, under the First Schedule. Not more than 70% of benchmark revenue is paid into ABFA. The same disbursement formula is used for actual petroleum receipts, where they are higher or lower than benchmark revenues.

As aforementioned, the government is legally required not to prioritise more than four (4) areas for spending every three years (Table 18). In 2016, PIAC embarked on a citizen led approach to generate preferences for areas for ABFA expenditure. **Overall, agriculture and industry were selected by participants as the topmost priority in all the regions, while education and health care were ranked second, third or fourth in the majority of the regions** (Table 19). However, over the years of its implementation, it is increasingly evident that there is no clear justification for the selection of the four priority areas. **Both the selection of the priority areas and the resulting allocations to them, are largely inconsistent with citizens preferences for ABFA priority areas either nationally or by regions**.

Table 18: ABFA Selected Priority Areas (2011-2022)

2011–2013	2014–2016	2017–2019	2020–2022
Expenditure and amortisation of loans for oil and gas infrastructure	Expenditure on amortisation of loans for oil and gas infrastructure	Agriculture modernisation	Agriculture modernisation
Agriculture modernisation	Agriculture modernisation	Physical infrastructure and service delivery in education	Road, rail and other critical infrastructure development
Roads and other infrastructure	Roads and other infrastructure	Physical infrastructure and service delivery in health	Physical infrastructure and service delivery in education and health
Capacity building (including oil and gas)	Capacity building (including oil and gas)	Roads and other critical development	Industrialisation
	PIAC*	PIAC	PIAC

NB: PIAC's budget started being funded from ABFA allocations in 2016

Source: Authors' construct based on Information in the National Budget

Table 19: Citizens Preferences for ABFA Priority Areas by Regions

Region	Ranked Priorities					
	1st	2nd	3rd	4th	5th	6th
Eastern	Agriculture and Industry	Healthcare	Rural Development	Social Welfare	Portable Water	Housing Delivery
Volta	Agriculture and Industry	Healthcare	Rural Development	Social Welfare	Portable Water	Housing Delivery
Central	Agriculture an Industry	Education	Health	Roads	Energy	Finishing of Uncompleted Projects
Greater Accra	Agriculture and Industry	Education	Health	Security	Rural Development	
Western	Agriculture and Industry	Health	Education	Roads	Water	N/A
Brong Ahafo	Agriculture and Industry	Rural Development	Health	Water	Science and Technology	Environment
Northern	Agriculture and Industry	Roads	Education	Health	Water	N/A
Upper West	Agriculture and Industry	Education	Roads	Health	-	N/A
Ashanti	Agriculture and Industry	Roads	Rural Development	Health	Social Welfare	Education

Source: PIAC District Stakeholder Engagement Forum, 2016

Over the last decade (2011 – 2020), ABFA has provided an important financing opportunity in the national budget to increase public spending capacity as well as generate higher social returns. Total benchmark revenue allocations to ABFA amounted to **GHS9.41 billion (US$2.61 billion)[155]** while allocations amounted to **GHS8.51 billion (US$2.28 billion)**. The remaining unutilised amounts were swept into the Consolidated Fund under government's Treasury Single Account (TSA) policy.

The ABFA has been spent on agriculture, amortisation of loans, capacity building (including oil and gas), health, education, PIAC, Ghana Infrastructure Investment Fund (GIIF)[156], industrial development, roads, rail and other critical infrastructure (Figures 39-41, Table 20, and Box 3). Figure 39 and Table 20 show the cumulative ABFA allocations, while Figures 40-41 show the yearly ABFA allocation to the priority sectors between 2011 and 2020.

ABFA allocations have been made on the following priority order (scale):

- **Roads, railways, and other infrastructure:** GHS4.56 billion (53.51%) of total ABFA allocations.

[155] Estimation is based on figures presented in national budget statements and annual reports on petroleum funds https://mofep.gov.gh/publications/budget-statements?page=0 .
[156] See Box 3 for more focus on GIIF

- **Physical Infrastructure and service delivery in education:** GHS1.85 billion (21.74%) of total ABFA allocations. Specifically, the government's flagship programmes, such as the Free SHS policy accounts for most of the ABFA education spending. Most of this predominantly went into service delivery as compared to physical infrastructure like school buildings.
- **Expenditure on amortisation of loans for oil and gas infrastructure:** GHS860.24 million (10.11%) of total ABFA allocations.
- **Agriculture modernisation:** GHS682.91 million (8.02%) of total ABFA allocations.
- **Capacity building (including oil and gas):** GHS358.00 million (4.21%) of total ABFA allocations **Physical infrastructure and service delivery in health:** GHS118.82 million (1.40%) of total ABFA allocations
- **Ghana Infrastructure Investment Fund (GIIF):** GHS43.99 million (0.52%) of total ABFA allocations.
- **Industrialisation:** GHS31.80 billion (0.37%) of total ABFA allocations.
- **Public Interest and Accountability Committee (PIAC):** GHS11.83 million (0.14%) of total ABFA allocations.

Table 20: ABFA Distribution to Priority Areas, GHS and USD (million)

Area	%	Allocation (GHS million)	Allocation (USD million)
Roads and Other Infrastructure	53.51%	4,554.72	1,234.24
Physical Infrastructure and Service Delivery in Education	21.74%	1,850.24	363.17
Expenditure on Amortisation of Loans for Oil and Gas Infrastructure	10.11%	860.24	312.11
Agriculture Modernisation	8.02%	682.91	203.66
Capacity Building (including Oil and Gas)	4.21%	358.00	131.52
Physical Infrastructure and Service Delivery in Health	1.40%	118.82	23.06
Ghana Infrastructure Investment Fund (GIIF)	0.52%	43.99	9.55
Industrialisation	0.37%	31.80	5.60
Public Interest and Accountability Committee (PIAC)	0.14%	11.83	2.43
Total	**100.00%**	**8,512.55**	**2,285.33**
Average exchange rate (2011-2020): USD 1 = GHS3.57			

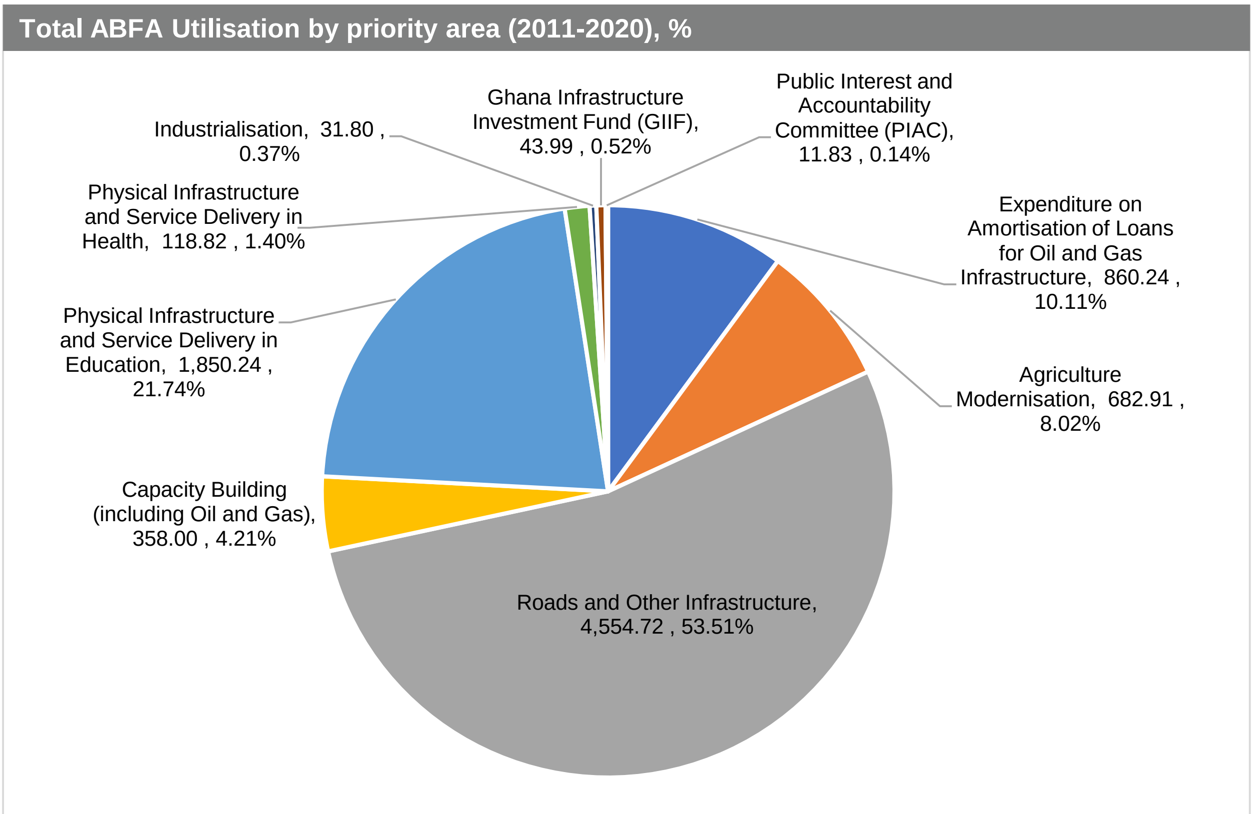

Figure 39: Total ABFA Utilisation by priority area (2011-2020), %

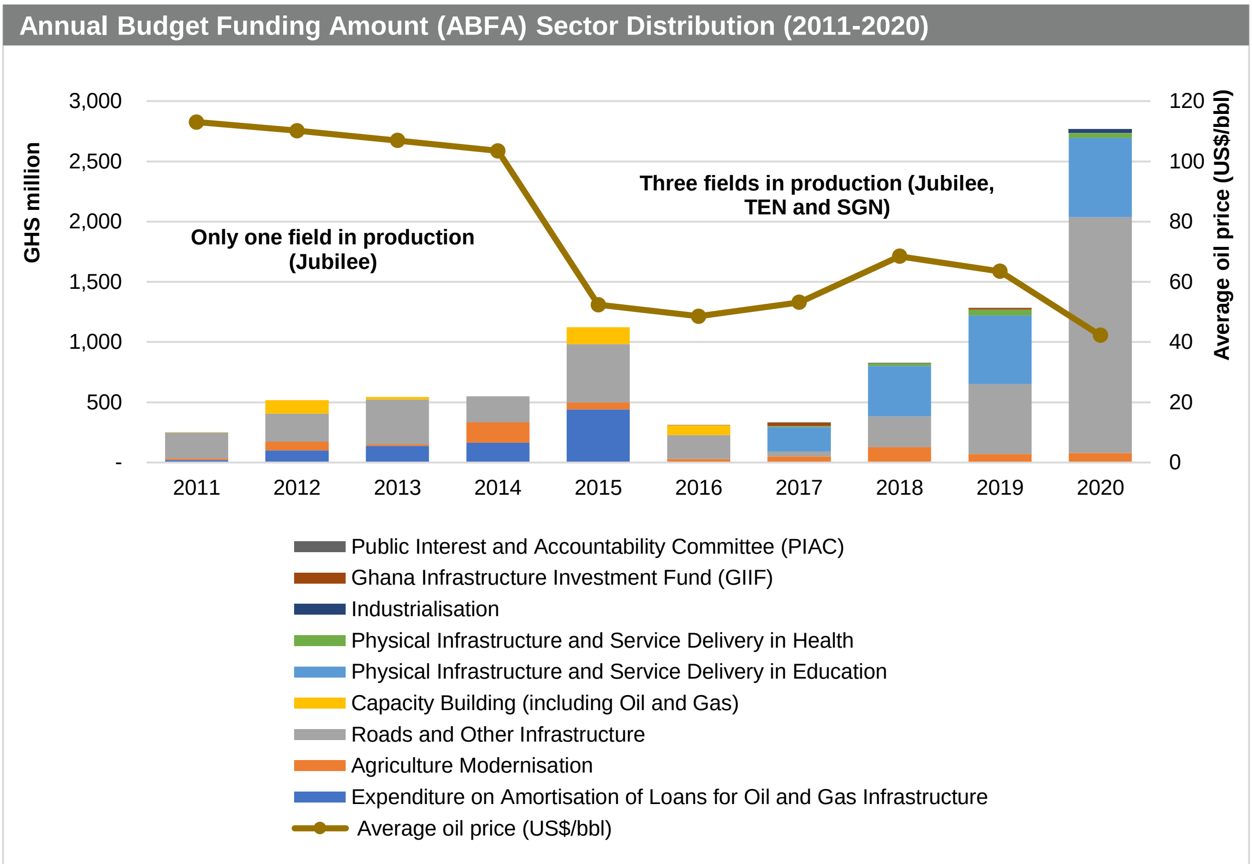

Figure 40: Annual ABFA Distribution to Priority Areas (GHS million)

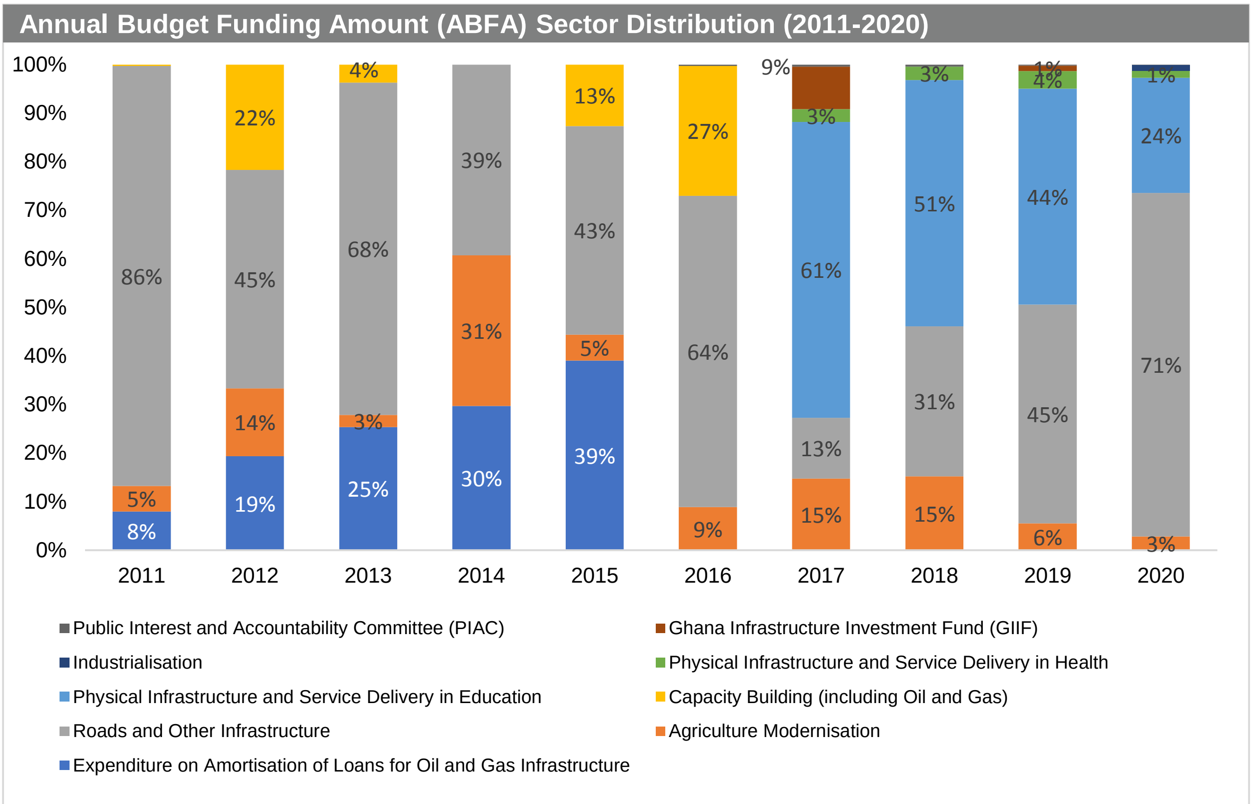

Figure 41: ABFA Distribution to Priority Areas (%)

Box 3 — A focus on Ghana Infrastructure Investment Fund (GIIF)

- In 2015, the Minister for Finance introduced the Ghana Infrastructure Investment Fund (GIIF) with the overall objective to mobilise, manage, coordinate and provide financial resources for investment in a diversified portfolio of infrastructure projects in Ghana for national development.
- The underlying reasons for the establishments of GIIF was to provide a more efficient financing for critical infrastructure and reduce government backed guarantees to such infrastructure development. In effect, GIIF required appropriate project planning, ex ante analysis, efficient financing design, and robust monitoring and evaluation model. According to one interviewee, GIIF aimed at investments in projects that had a positive rate of return and potential to generate economic returns to pay for itself.
- The Petroleum Revenue Management (Amendment) Act, 2015 (Act 893) provides that up to 25% of the amount allocated to Public Investment Expenditure under the ABFA shall be allocated to the Ghana Infrastructure Investment Fund (GIIF) for the purpose of infrastructure development.
- Since the establishment of GIIF, the Fund has received **US$9.55 million** from the ABFA from 2011 to 2020 (only in 2017 and 2019) and has made significant contributions to funding strategic investment projects including Terminal 3 of the Kotoka International Airport (KIA) in Accra in 2016.
- According to the Fund, a total amount of **US$5.51 million** was realised between 2017 and 2019 as total returns.

- Even though allocations from ABFA to GIIF ceased in 2017, because of the enactment of the Earmarked Funds Capping and Realignment Act, 2017 (Act 947), GIIF's investments have continued to generate positive returns.
- To ensure petroleum revenues promotes economic growth and prosperity that can be sustained once extractive resources are depleted, investments such as GIIF's should be prioritised and expanded.

Source: PIAC Report, 2019

Photo insert of Kotoka International Airport - Terminal 3

In the next section, we focus on assessing the impact of petroleum revenues on Ghana's socio-economy and real sector using the allocation criteria defined under the PRMA, namely:

- Has ABFA maximised the rate of economic development?
- Has ABFA promoted equality of economic opportunity?
- Has ABFA been used to undertake an even and balanced development of the regions?
- Have ABFA allocations and disbursements been guided by a medium term expenditure framework (MTEF) aligned with a long term national development plan?

5.3 ABFA and maximisation of the rate of economic development

To ensure natural resource revenues maximize economic growth in resource rich countries, it is expected that these revenues are invested in other sectors (particularly sectors with the potential to propel growth) to enhance value addition, increase diversification in exports to reduce dependency on natural resources and related exports, and improve overall infrastructure to enhance overall growth. In effect, natural resource revenues should be spent on opportunities that serve beyond extractives. The PRMA envisioned similar objectives through the ABFA. To ensure ABFA spending through the budget maximises economic growth and development, it requires ABFA investments to be:

- Strategic and aligns with national policy.
- Robust transparent procurement and financial management systems.
- Robust monitoring and evaluation systems.

Between 2010 and 2020, GHS8.5 billion of petroleum revenues (ABFA) were invested in agriculture, infrastructure, health and education sectors. However, the evidence of the significant impacts on the growth of these sectors remains negligible except for a few cases (Table 21). Moreover, a quick review of the macro-level information shows that whereas petroleum revenues allocations to the sector increased over the period, their growth rate remained stagnant or contracted over the same period. **The agriculture sector, for instance, contracted by 20% in 2014 despite over a ten-fold increase in petroleum revenue disbursement to the sector** (Figure 42 and 43)**.** Whiles there may be other confounding factors that influence the correlation between ABFA disbursements to sectors and the changes in their growth rates, the conclusion from the majority of literature reviewed substantiates our findings.

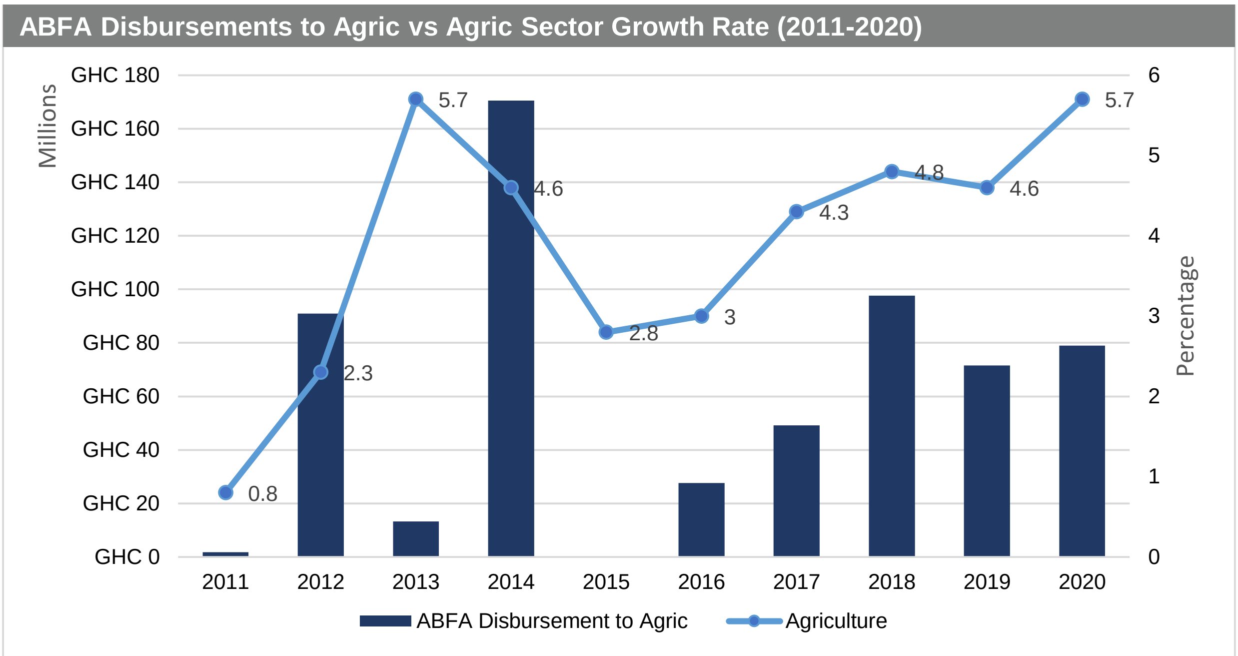

Figure 42: ABFA Disbursements versus Agriculture Sector Growth

Figure 43: ABFA Utilisation – Agriculture Sector (2010-2020)

Stakeholders also provided reasons why they believe ABFA investments have not maximised the rate of economic development in the priority sectors.

"Our initial investigations in the early years of petroleum revenues showed that ABFA resources were used to pay old debt and past projects; hence there were no new projects for it to propel growth."

"Even the Ministry of Finance could not control how ABFA should be used by the beneficiary MDAs. ABFA had become one of the main sources of capital expenditure for the beneficiary MDAs; hence it replaced existing GoG capital expenditure."

"Even while we are putting oil money as additional resources into the agric sector, output in the sector is diminishing. It tells you that perhaps we are not investing in the right areas that will generate the growth that we expect from the sector."

"If we had not found oil, then we would have done everything there was to do to ensure that we grew the other sectors of the economy. I am not saying that nothing was done, but maybe the effort we put in was not enough. You can see that in 2009, the agriculture sector grew substantially, which had not happened in more than five years. But then, just after 2009, agriculture started experiencing low to negative growth.

Despite inadequate evidence of maximisation of economic development by ABFA at the macro level, other stakeholders such as The Africa Centre for Energy Policy (ACEP) and PIAC have undertaken several socioeconomic impact analyses of ABFA projects. **Despite the mixed results, there were, however, infrastructure projects in some communities (especially irrigation) that were found to have positively impacted communities,** as shown in Table 21**.**

Table 21: Zuedem Irrigation Project – ABFA Funded Socioeconomic Impact Assessment

Socioeconomic Impact Assessment of Zuedem Irrigation Dam - ABFA Funded Project	
Zuedem Irrigation Dam - (Small Irrigation Project)	
Project Location	Zuedem, Builsa North District
District Demography	Population – 56,477 Male – 49.2% Female – 50.8% 90% of the population is rural
Main Economic Activity	Agriculture, forestry and fishing – 95% Main agriculture products – maize, millet, tomatoes, pepper and other vegetables
Project Characteristics	Cost - GHS 2,566,554.40 Size of dam - 900,000 sq meter of reservoir capacity multipurpose dam Irrigable lands/farm - 75,000 acres of irrigable lands/farms
Overall Impacts of Project	**Impact** • Additional employments as dam helped increased yield by more than 2-fold – vegetable production increased more than 100% and other cereals by 75% • Retention of youth in the community due to all year round farming • Increase local economic development and poverty reduction • Gender dimension access to irrigation
Key Drawbacks	**Major Drawbacks** • No maintenance plan • Poor enforcements of activities that affect dam efficiency (small scale mining) • Gaps in community monitoring

Source: ACEP (2017): Value for Money Analysis of ABFA Funded Projects

5.3.1 *Going Beyond ABFA: Ten years of oil and gas and socio-economic development*

Below is a summary of findings from a comprehensive literature review of published works over the past ten years on the impact of petroleum revenues on Ghana's socio-economy (Table 22). **The overall direction from these studies is that despite the initial high optimism of oil and gas revenues radically transforming Ghana's economy, the evidence ten-plus years down the line has been modest at best or negligible at worst.** For example, Tunyo (2021), utilising a structural vector autoregressive (SVAR) model, shows that crude oil production had no impact on the non-oil sectors — agricultural sector, manufacturing sector, the services sector— as well as the real effective exchange rate and inflation from 2011-2018. There was, however, a positive impact on fiscal balance.

This is also corroborated by the mixed views of various stakeholders who remarked, as follows:

"Oil has really brought some reasonable investment into Ghana, which has supported the growth of the economy across many sectors. Because if you look at the country's GDP growth, the radical growth coincides with the oil and gas production, but this has tapered in the past few years."

"Oil revenues helped shore up our reserves which contributed to stabilising the cedi somewhat in the first few years, for example, 2011-2012. Part of which was spent through the budget, so that also helped with government expenditure."

"The expectation of Former President Kufour and the likes was that revenue was going to come for the government to be able to drive development, build the necessary infrastructure and human capital to move the country forward. A bit of that has been seen; you can say that some progress has been made in that score. For example, about US$6 billion or so in revenue has come to the state, which has gone into many development projects. The oil industry also became the magnet for the high rise buildings we see in Accra and Takoradi [the real estate business]."

"There was a lot of hope for this country at the time we discovered oil, but the performance has so far been below expectations. I think it is quite disappointing that after a decade of oil production, we seem to have very little to show for the impact of oil on the national economy. I think if you asked anybody, the only thing that we can pinpoint really is the Free SHS, which actually stands out."

"In the very first year, when you look at the statistics by the Ghana Statistical Service, you would realise that when oil came on stream, manufacturing and services also did well because some local entities won subcontracts with foreign entities. So, there was some sort of a linkage, but you see them diverging over time.

"I am pretty disappointed with and underwhelmed by the oil and gas industry. Ghana's economic structure has largely been the same, even with the advent of oil and gas production. Revenue usage and knowledge sharing have not really transformed the economy. We haven't spent the money in a clinically focussed way to change anything. We've spent the money all over the place… You don't see job creation grow that much"

Furthermore, most of the recent studies clearly illustrate that petroleum revenues are not positively impacting real sectors of the economy — such as growing the agriculture or manufacturing sectors in Ghana. This indicates weak diversification efforts. While some of these issues predate the oil boom, they have compounded with crude oil production. The literature and evidence base also show rising urban poverty and inequality (including in the Western Region) at the micro-level and a high degree of procyclicality[157] of government budgets (including more borrowings).

Table 22: Summary of literature findings on oil and gas and Ghana's economy

Study	Method	Summary of Findings
World Bank (2009 & 2010)	Mixed methods[158]	• Based on the fiscal regime in place and a price assumption of US$75 per barrel, the World Bank's central estimate puts potential government revenue at US$l.0billion on average per year between 2011 and 2029 • At US$50 per barrel, government revenue would go down to an average of US$400 million per year. • At US$100 per barrel, government revenue would conversely go up to an average of US$1.6 billion per year. • Besides, higher cost of extraction could also significantly impact revenue.
Breisinger et al. (2010)[159]	Dynamic computable general equilibrium (DCGE) model	• Simulations show that the relationship between windfall profits, growth, and households' welfare beyond the short-run Dutch disease effects is complex. • Designing a rule that allocates oil revenues to productivity-enhancing investments and an oil fund is crucial to achieving shared growth and macroeconomic stability.
Asafu-Adjaye (2010)[160]	Computable general equilibrium (CGE) model	• Production from the Jubilee Field could increase Ghana's GDP growth rate by 3.5% a year • Growth rate could more than triple if additional wells are brought into production and the natural gas utilised rather than flared or re-injected

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[157] See Acheampong, T. & Amoah-Darkwah, E. (2020). *'Performance of Ghana's Economy and Capacity for Financing Key Medium-Term (2021-2024) Flagship Policies and Programmes'*. Ghana Centre for Democratic Development (CDD Ghana). https://doi.org/10.13140/RG.2.2.28240.12809

[158] World Bank (2009). Economy-Wide Impact of Oil Discovery in Ghana. Available at: https://documents1.worldbank.org/curated/en/752921468030343049/pdf/473210ESW0P1121IC0disclosed03111101.pdf; World Bank (2010). Project Appraisal Document on a Proposed Credit in the Amount Of SDR 24.2 Million (Us$38 Million Equivalent) to The Republic Of Ghana for a Oil and Gas Capacity Building Project. Available at: https://documents1.worldbank.org/curated/en/752921468030343049/pdf/473210ESW0P1121IC0disclosed03111101.pdf

[159] Breisinger, C., Diao, X., Schweickert, R., & Wiebelt, M. (2010). Managing future oil revenues in Ghana: An assessment of alternative allocation options. *African Development Review*, *22*(2), 303-315.

[160] Asafu-Adjaye, J. (2010). Oil Production and Ghana's Economy: What Can We Expect?. Ghana Policy Journal. Available: https://media.africaportal.org/documents/gpj-v4-art2.pdf

		• Aggregate exports decline despite the increase in oil and other commodity exports. • Worsening of the trade balance from increased household disposable incomes, decline in agricultural production and rising imports
Peprah (2011)[161]	Survey/ Purposive sampling	• Explores the effects of the oil find on the livelihood of women in the catchment area of Cape Three Points, Western Region. • Over half of the respondents (N=240) perceive a decrease in fish catch, loss of jobs for husbands and reduction in income levels.
Ayifli et al. (2014)[162]	Political ecology and sustainable livelihoods framework	• Community narratives point towards a decline in traditional fishing grounds and catching opportunities for fisherfolk. This is due to increased competition from displaced fishing grounds
Owusu (2017)[163]	Mixed-methods approach (N=400 fisherfolk households survey and N=42 interviews with stakeholders)	• Examines how fisherfolk livelihoods have been affected by the extraction and production of oil • Fisherfolk in the Western Region of Ghana are under high socioeconomic vulnerability because of decreased fish catch and declining coastal livelihoods
Fosu (2017)[164]	Distributed-lag analysis	• Effect of barter terms of trade growth on GDP growth from 1960-2007 is negative and significant, suggesting resource curse hypothesis (RCH) has apparently been applicable in Ghana over the sample period. • Despite criticisms of the PRMA's implementation, the Act seems to be functioning well especially when it comes to the promotion of transparency despite concerns about accountability
Acquah-Andoh et al. (2018)[165]	Ordinary least squares (OLS) regression	• Petroleum is not a significant contributor to Ghana's GDP. • Consistent appreciation of Ghana's real effective exchange rate between 2010 and 2013 led to a deterioration of the competitiveness of the non-oil sector and declining contribution of the agricultural sector to GDP • Investing petroleum proceeds in the non-oil sector and expansion of the export base are viable options for utilising petroleum revenues

[161] Peprah, J. A. (2011). Women, livelihood and oil and gas discovery in Ghana: An exploratory study of Cape Three Points and surrounding communities. *Journal of sustainable development*, *4*(3), 185.
[162] Ayifli, F. K., Adom-Opare, K. B., & Kerekang, T. (2014). Community perspectives on the impacts of oil and gas activities in Ghana: a closer look and analysis of fishery livelihoods within six coastal districts. In *African Dynamics in a Multipolar World: 5th European Conference on African Studies—Conference Proceedings* (pp. 331-358)
[163] Owusu, V. (2019). Impacts of the petroleum industry on the livelihoods of fisherfolk in Ghana: A case study of the Western Region. *The Extractive Industries and Society*, *6*(4), 1256-1264.
[164] Fosu, A. K. (2017). Oil and Ghana's economy. The Economy of Ghana Sixty Years After Independence, 137
[165] Acquah-Andoh, E., Gyeyir, D. M., Aanye, D. M., & Ifelebuegu, A. (2018). Oil and gas production and the growth of Ghana's economy: An initial assessment. *International Journal of Economics & Financial Research*, *4*(10), 303-312.

Asante-Poku & van Huellen (2021)[166]	Mixed methods study	• Identifies three impact channels that are specific to commodity exporters: price, supply chain and financial channel. • The COVID-19 pandemic will have a long-term negative effect on commodity-dependent countries' finances such as Ghana • Ability of the Ghanaian economy to cushion the impact of the crisis and mitigate the risk of long-term adverse consequences depends on the availability of concessional loans.
Ackah et al. (2020)[167]	Qualitative study	• Petroleum revenues contributed 4.2% and 0.9% to domestic revenues and GDP with the highest contribution in 2014. • Crude oil exports can be considered as the second-largest export commodity over the period under review after gold exports.
Adabor et al. (2020).[168]	Autoregressive distributed lag (ARDL) model	• Oil resource rent had a negative and significant relationship with economic growth of Ghana from 2007-2019 • Gas resource rent had a positive impact on the economic growth of Ghana
Adabor & Buabeng (2021)[169]	Nonlinear Autoregressive Distributed Lag (NARDL) model	• Oil resource rent from 2010-2019 significantly promotes economic growth [providing empirical evidence in support of the resource blessing hypothesis]. • Gas resource rent exerts a significant adverse effect on economic growth [providing empirical evidence to support the resource curse hypothesis]
Tunyo (2021)[170]	Structural vector autoregressive (SVAR) model	• Crude oil production had no impact on the non-oil sectors from 2011-2018 — agricultural sector, manufacturing sector, the services sector— and real effective exchange rate and inflation. • Crude oil production had a positive impact on fiscal balance. • Need to establish oil refineries, petroleum industries and fertiliser plants to provide the backward and forward linkages
Boateng et al. (2022[171])	Wavelet techniques	• Examines the degree of causality and interdependencies between three commodities (cocoa, Brent crude oil and gold) and three

[166] Asante-Poku, NA, & van Huellen, S. (2021). Commodity exporter's vulnerabilities in times of COVID-19: the case of Ghana. *Canadian Journal of Development Studies / Revue canadienne d'études du développement* , *42* (1-2), 122-144.
[167] Ackah, I., Lartey, A., Acheampong, T., Kyem, E., & Ketemepi, G. (2020). Between altruism and self-aggrandisement: Transparency, accountability and politics in Ghana's oil and gas sector. *Energy Research & Social Science*, *68*, 101536.
[168] Adabor, O., Buabeng, E., & Annobil-Yawson, G. (2020). The Impact of Natural Resource Rent on Economic Growth of Ghana. *Asian Journal of Economics, Business and Accounting* , 1-17.
[169] Adabor, O., & Buabeng, E. (2021). Asymmetrical effect of oil and gas resource rent on economic growth: Empirical evidence from Ghana. *Cogent Economics & Finance* , *9* (1), 1971355.
[170] Tunyo, DA (2021). Crude Oil Production and Macroeconomic Performance in Ghana. University of Cape Coast. Available: http://publication.aercafricalibrary.org/bitstream/handle/123456789/1351/THESIS-%20DELALI%20AKU%20TUNYO.pdf?sequence=1&isAllowed=y
[171] Boateng, E., Asafo-Adjei, E., Addison, A., Quaicoe, S., Yusuf, M. A., & Adam, A. M. (2022). Interconnectedness among commodities, the real sector of Ghana and external shocks. *Resources Policy*, *75*, 102511.

		economic indicators (Bank of Ghana composite index for economic activities, Global Economic Policy Uncertainty and inflation) from 2006-2021. • Commodities positively contribute to economic activities, but not substantially. • Crude oil causes a decrease in inflation rate in the medium-term from 2006 to 2011. However, co-movements between commodities and inflation are negative beyond 2019.

Source: Authors' construct

5.4 ABFA and promotion of the equality of economic opportunity

Another important expected objective of ABFA is to promote equality of opportunities to enhance the wellbeing of Ghanaians. ABFA investments are expected to support Ghana's development and the wellbeing of its citizens. **However, the law did not provide further definition and explanation of equality of opportunities; hence it has become challenging to interpret data to align with this objective.** This aligns with stakeholders' views:

"Equity is a big word in these discussions. Because the question is, what scale are you measuring yourself against? I think this objective of equality of opportunities was a misnomer, and maybe the framers of the law were thinking about something which is rather esoteric as it will be difficult to achieve under our current circumstances…… do we mean regional equity, equity across sectors, equity of the citizen? But at least if you put ABFA into good use, eventually people will benefit"

"I think what they meant to say was for us to spend in all the regions and for people to see that the oil money is being put to use, but the way we've spent it is what has created problems"

To ensure equality of opportunities, international best practices suggest that petroleum revenues must be deliberate in achieving inclusive growth, where greater and sustainable economic opportunities are created and at the same time broader access to these opportunities. Without a deliberate attempt by the government to ensure broader access to opportunities created by ABFA, it will become increasingly difficult for the poor to be excluded by their circumstances or poor governance.

Our review pointed out some instances that relate promotion of equal opportunities under ABFA:

- The financing of the government's flagship Free Senior High School (Free SHS policy) has been largely commended by stakeholders as one of the avenues to enhance equal access to economic opportunities. ABFA disbursements to the Free SHS programme has amounted to GHS 1.8 billion between 2017 and 2020, while the government estimates about 1.6 million students as beneficiaries of the programme

- To ensure citizens participate and benefit from the economic returns generated by ABFA, PIAC conducted a citizen-led preference to select ABFA priority areas where they indicated and ranked their choices.[172] However, evidence suggests that the selection of priority areas and projects are politically driven and not guided or fully aligned to citizens preferences.

Based on our stakeholder interview, it is evident that the government has not been deliberate under this ABFA objective, although the Free SHS policy may generate unintended consequences aimed at promoting equality and increased access to economic development.

5.5 ABFA and an even and balanced development of the regions

Under Ghana's 1992 Fourth Republican Constitution, the Directive Principles of State Policy[173] mandates the State to undertake an *"even and balanced development of all regions and every part of each region of Ghana, and, in particular, improving the conditions of life in the rural areas, and generally, redressing any imbalance in development between the rural and the urban areas"*. It is within this context that the related PRMA provisions were couched. Furthermore, the concept of an even and balanced regional development within the broader development literature points to the need for countries to ensure a consistent effort to reduce regional disparities by supporting the creation of employment and wealth-generating economic activities in these places.[174] In addition, such a decentralised approach allows better spatial and functional distribution and social cohesion by stemming rural-urban migration. Thus, within the Ghanaian context, the 1992 constitution enjoined the State to ensure that one part of the country is not unfairly disadvantaged in the distribution of the resources – that is, the *'national cake'*. In a sense, the State is charged to spread the developmental pie (or petroleum revenues for that matter) in an equitable way such that every region gets their fair share and ultimately reduces regional inequality.

Nevertheless, the evidence base indicates significant heterogeneity in poverty and regional inequalities in the country: the North-South spatial income inequality divide.[175] This is most pronounced in the Northern parts of Ghana, as evidenced in

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[172] See Table 19 in Section 5.2.2

[173] See Article 36 (2)(d) of the 1992 Constitution

[174] OECD Regional Development Policy (n.d.). Available: https://www.oecd.org/regional/regional-policy/regionaldevelopment.htm

[175] Ayelazuno, J. A., & Aziabah, M. A. (2021). *Leaving no one behind in Ghana through university education: Interrogating spatial, gender and class inequalities* (No. 2021-1). UNRISD Working Paper.; Abdulai, A. G., Bawole, J. N., & Kojo Sakyi, E. (2018). Rethinking persistent poverty in Northern Ghana: The primacy of policy and politics over geography. *Politics & Policy*, *46*(2), 233-262.; Annim, S. K., Mariwah, S., & Sebu, J. (2012). Spatial inequality

various rounds of the Ghana Living Standard Survey (GLSS) and the Population and Housing Census (PHC). For example, the recently concluded 2021 PHC showed that the literacy rate among population six years and older was lowest in the six northernmost regions: Upper East (48.1%), Upper West (46%), Northern (41.3%), North East (35.9%), and Savannah (32.8%) regions. This was well below the national figure (69.8%) as well as that of Accra (87.9%) and the Ashanti (78%) regions.[176] This trend also features prominently in Ghana's sub-national human development indices over the years.[177]

Petroleum revenues spent through the budget is required under PRMA to achieve even and balanced development of all sixteen regions in Ghana. Thus, the spirit behind this provision in the PRMA was to use ABFA receipts to bridge or reduce some of the prevailing poverty and regional inequalities in Ghana. While this objective stems from Article 36(2)(d) of the 1992 Constitution, we note that **neither the Constitution nor PRMA provides adequate definitions and explanations to suggest achieving such an aspirational objective**. For example, the PRMA does not clearly define 'even and balanced development'; hence, many stakeholders we interviewed offered varied views on this or were unsure of the key indicators to be used to measure this objective.

Nonetheless, the evidence base shows that ABFA funded projects have been relatively evenly distributed across all 16 regions in Ghana, including in health, education and road and other infrastructure projects. Figure 44 is a spatial map showing completed community-based ABFA projects between 2011 and 2018. To achieve even and balanced development, the latter part of Article 36(2)(d) of the Constitution proposes the need to improve the conditions of life in the rural areas, and generally, redress any imbalance in development between the rural and the urban areas. This implies the need to be deliberate in selecting strategic sectors that create more opportunities to spur development in the rural areas and stem urban migration. The agriculture sector employs over 70% of Ghana's rural population. Therefore, one of the strategic sectors to achieve even and balanced development between rural and urban areas is to invest in the agriculture sector. Agriculture modernisation has been one of the main areas for ABFA investments; however, the data suggest that it has received only 8% of the total GHS8.5 billion ABFA allocations. It is evident that ABFA investments have not been deliberate to achieve even and balanced development despite scattering projects across all regions and in most districts.

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and household poverty in Ghana. *Economic Systems*, *36*(4), 487-505.; Osei-Assibey, E. (2014). Nature and dynamics of inequalities in Ghana. *Development*, *57*(3), 521-530.

[176] Ghana 2021 Population and Housing Census General Report, Volum 3D – Literacy and Education. Available: https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/2021%20PHC%20General%20Report%20Vol%203D_Literacy%20and%20Education.pdf, at p.28

[177] See https://globaldatalab.org/shdi/shdi/GHA/?levels=1%2B4&interpolation=1&extrapolation=0&nearest_real=0

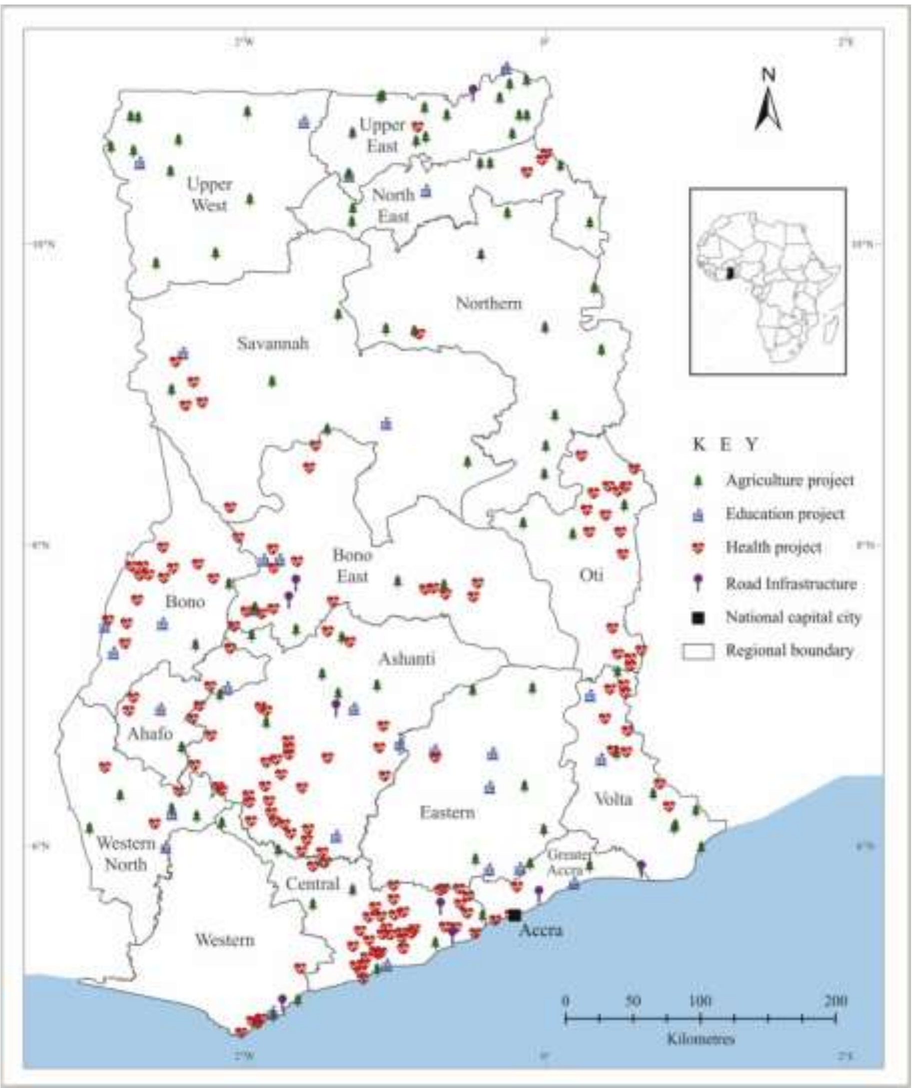

Figure 44: Completed community-based ABFA projects, 2011–2018

Source: Obge & Lujala (2021)[178]

5.6 ABFA allocations and medium term expenditure frameworks (MTEF) aligned with a long term national development plan

Allocation of Benchmark Revenue to the ABFA is required to be guided by a **medium-term development strategy,** while actual ABFA allocations are meant to be guided by a **medium-term expenditure framework**. Ghana's medium-term development strategies implemented over the period include:

- *Growth and Poverty Reduction Strategy (GPRS II), 2006-2009*
- *Ghana Shared Growth and Development Agenda (GSGDA), 2010-2013*
- *Ghana Shared Growth and Development Agenda (GSGDA) II, 2014-2017*

[178] Ogbe, M., & Lujala, P. (2021). Spatial crowdsourcing in natural resource revenue management. *Resources Policy*, *72*, 102082.

- *Coordinated Programme of Economic and Social Development Policies, 2017–2024 — An Agenda for Jobs: Creating Prosperity and Equal Opportunity for All*
- *Medium-Term National Development Policy Framework (2018–2021)*
- *Coordinated Programme of Economic and Social Development (2018–2022)*

However, as other sections of this report highlight, there are lingering questions about the impact of ABFA utilisations and the attainment of outcomes tied to broader national development objectives. Ghana's underlying political economy and political settlements is such that many governments have not found the need to develop and or implement a long-term national development plan. Recognising this institutional defect, Section 21(3) PRMA rightly outlined twelve (12) spending areas for utilising the ABFA. The law, however, fell short of being prescriptive on the exact specifics or definition of these 12 areas, leaving room for conflation and potential abuse by the political leadership of the day. Thus, the requirement under 21(2) of the PRMA (as amended) for the ABFA to be used to (1) maximise the rate of economic development, (2) promote equality of economic opportunity to ensure the well-being of citizens, and (3) undertake even, and balanced development of the regions is yet to be fully attained.

Ghana has never had a long-term national development plan; the closest is the Coordinated Plan of Action, but that lacks granular implementation detail. Party manifestos act as the default to guide statecraft and thus the allocation of monies for development projects. In essence, inconsistencies in the implementations due to ABFA allocations not being aligned with medium term expenditure frameworks, which are further aligned with a long term national development plan, means that allocations are made to projects spread over several invoices. Some of the payments go to pay for previously abandoned projects and not necessarily start new ones, as we have found and also amply demonstrated in previous PIAC reports.

The below stakeholder remarks capture the extent of the political economy problem with ABFA allocations and medium term expenditure frameworks aligned with a long term national development plan:

> *"If you look at the PRMA, it said the expenditure must be guided by a long-term plan. That will be broken into medium term, and therefore, annual budget frameworks. But then the law gave an escape window to the government to say that in the absence of a long-term development plan, Minister will exercise discretion. Now, if the discretion that is being exercised is not guided by any strategic plan, then you will find that it becomes disjointed in terms of what you're trying to achieve in the final analysis. And this is what has happened."*

> *"You would find that we invest X amount of oil revenue ABFA, in a project, we do not see to the completion of the project. The next year, nothing is allocated to that project. And then, we move on to a new set of projects to be financed*

with ABFA. And that has led to expenditure overruns on particular projects. So, projects that should cost you say GHS5 million now, is costing you GHS30 million because you abandon it, put oil money into it the first year, abandon, came back to it only after five years, and there is cost escalation, a lot of it arising out of deterioration of a project after it was abandoned for a certain number of years."

A stakeholder remarked on what accounts for some of the inefficiencies in the spending.

"Every year, the minister partly complies with the PRMA by providing the list of projects being funded with oil revenue, but never complies with a provision requiring him to provide the stage of completion of these projects. And yet there was no sanction for violation. The 70 to 30% ratio capital expenditure=recurrent expenditure spending, which has consistently since 2017 been breached by the Minister, has also not actually led to any sanctions imposed on the minister. This means you can break the law and get away with it. And that in itself has not incentivised compliance with the Act."

5.7 Root Cause Diagnostics: Key Issues on ABFA Allocations and Disbursements

The preceding analysis illustrates that significant inefficiencies are hindering ABFA use and its ability to meet the objectives defined under the PRMA to maximise the rate of economic development and enhance well-being. Ghana's underlying political settlements regime and macro-fiscal factors, including the PFM system, further compound these inefficiencies with ABFA use, which we explain in further detail

The Fishbone diagram in Figure 45 illustrates the root causes and drivers of inefficiencies with ABFA use. These are driven by four broad factors, namely:

- Poor allocations and disbursements
- Poor implementation
- Weak reporting
- Weak auditing and accountability

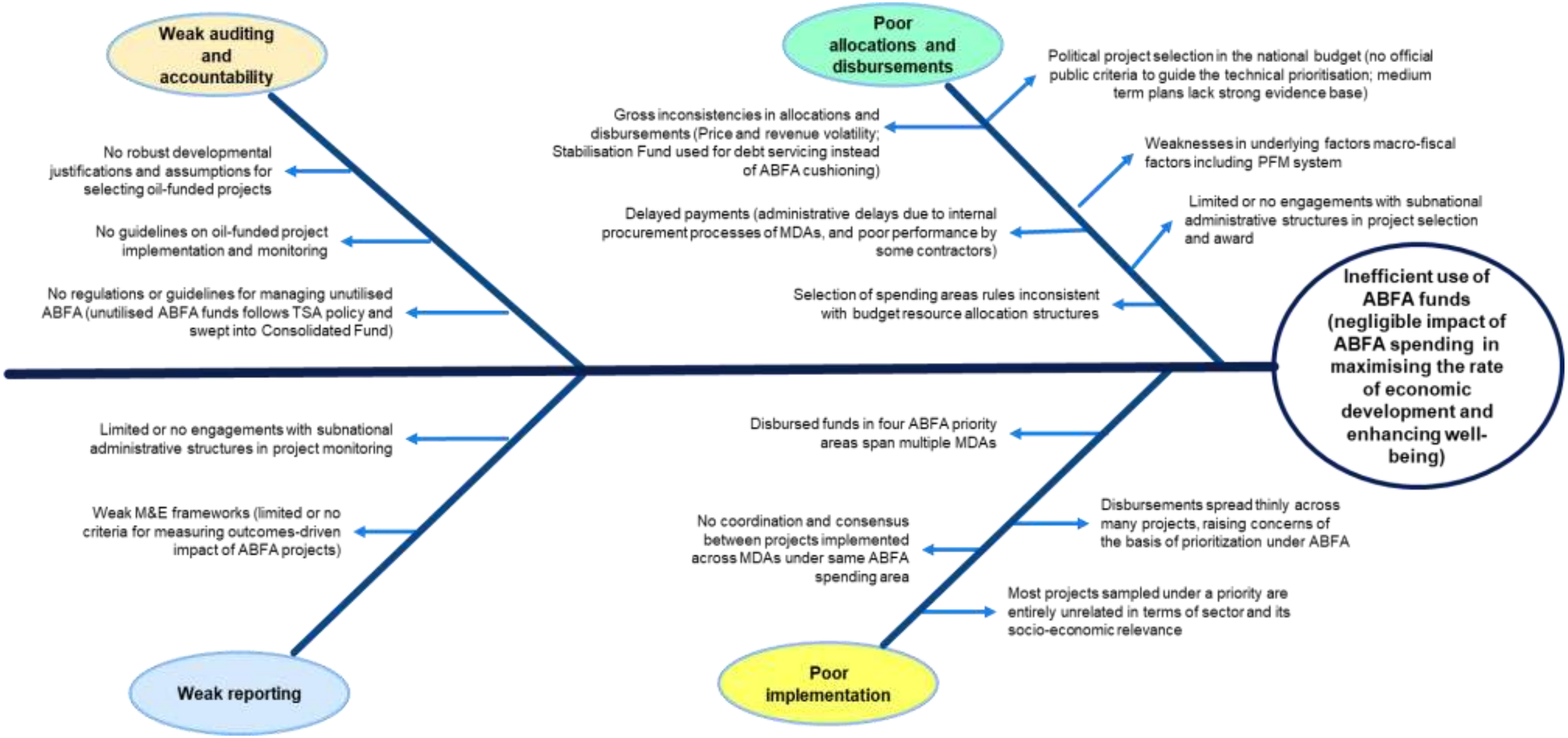

Figure 45: Fishbone of the causes (Drivers and Enablers) of inefficiencies with ABFA use

Source: Authors' construct

5.7.1 *Issues related to selection of spending areas and prioritisation*

Rules governing the selection of spending areas in the PRMA is not consistent with resource allocation structures under the budget, hence posing potential risks of noncompliance to efficient prioritisation as required under the PRMA. The PRMA requires the Minister of Finance to select four areas for spending every three years with the expectation to ensure ABFA funds are strategically prioritised and spent to achieve its intended objectives. However, **areas listed in the law are not consistent with resource allocation and disbursement structures under the national budget as per the national accounting standards**. Under the budget, resource allocation is done through sector MDAs. ABFA funds are disbursed based on four selected areas; meanwhile, its implementation is undertaken by over four MDAs (Table 23).

"We have focused more on policies, laws, regulations, to assume a certain position that if you do those laws, you'll be able to optimise the resources. But we have failed, really to balance the political economy issues with the development of these rules, you know, if you have a country where laws don't work, and nobody is held accountable, you can have all the laws you want, but they won't really mean anything. And exactly that is where we are today, where people just report for reporting sake, you can't call anybody to account"

Our review shows no coordination and consensus between projects implemented across MDAs under the same ABFA spending area. Further, there **is no mechanism to ensure that ABFA disbursements made across multiple sector MDAs under the same selected priority area is well coordinated to generate optimum social returns**. Most projects sampled under a priority are entirely unrelated in terms of sector and its socio-economic relevance, whiles disbursements were spread thinly across many projects, raising concerns of the basis of prioritisation under ABFA. **In 2020, for instance, ABFA disbursements to road, rail and other critical infrastructure were implemented across nine MDAs with completely unrelated projects under each MDA.** A total of GHS505.5 million was spread over 527 payments under Road, Rail and Other Infrastructure (Table 23). **This represents one of the indications of less or no prioritisation of ABFA funds, although the Minister of Finance adhered to the legal provision (compliance).** No documents **present robust developmental justifications and assumptions for selecting oil-funded projects or any guidelines on their implementation and monitoring**.

Based on PIAC's monitoring reports[179], the spreading of ABFA over myriad payments have resulted in an inefficient use of ABFA funds (Box 4 and 5). T**here have been gross inconsistencies in disbursements hence many uncompleted projects**, and cost incurred because of penalties from delayed payments, among others. **As a result, many stakeholders believe ABFA has not met their expectations in maximising the rate**

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[179] https://www.piacghana.org/portal/5/26/secretariat-reports

of economic development and enhancing their well-being. In the views of an interviewee:

ABFA has been spread over so many projects, and we are not seeing any impacts from the spending of oil revenues

There are no official public criteria to guide the technical prioritisation of ABFA projects by beneficiary MDAs. The main desired outcomes for spending ABFA are the effective allocation of funds to maximise the rate of economic development, promote equality of economic opportunities to ensure citizens' wellbeing, and ensure even and balanced development of the regions. To achieve this, the PRMA requires ABFA funds to be aligned with the medium-term plans (MTPs) to generate efficient development outcomes. It is expected that MTPs will go through an evidence-based process to prioritise spending in the medium term. However, **a review of most MTPs of beneficiary Ministries indicates inadequate analysis and evidenced-based data to back the decisions in these documents**.

Consequently, the selection of projects is not evidence-based. According to stakeholders interviewed, project selection in the national budget is very political. Hence, the **direction of spending and required appraisal methods to support project prioritisation and selection, transparent and competitive procurement system, strong oversight, monitoring, internal control mechanisms, and independent public auditing of projects, tend to be weakened**. This leads to documented implementation challenges, as evident in the projects funded with ABFA. In 2018, PIAC's ABFA Project Monitoring Report[180] highlighted that **ABFA projects suffer from poor project preparation, planning, inadequate pre-feasibility studies, poor prioritisation, implementation strategies, and monitoring. Others included inconsistencies in funding and lack of sustainability measures.**

180 https://www.piacghana.org/portal/files/downloads/secretary_reports/composite_report_of_2017_abfa_project_inspections.pdf

Table 23: ABFA Distribution to Sectors and Projects/Invoices

Year	Priority Area	Implementing MDAs/Sectors	Amount Disbursed (GHS)	Number of Payments/Projects
2011 - 2013	Expenditure and Amortisation of Loans for Oil and Gas Infrastructure	Ministry of Finance Ministry of Energy	257,920,847	5
	Agriculture Modernisation	Ministry of Food and Agriculture Ministry of Fisheries and Aquaculture	98,608,804.31	39
	Roads and Other Infrastructure	Ministry of Interior Ministry of Roads and Highways Ministry of Works and Housing Ministry of Transport Ministry of Energy Ministry of Education	630,306,446.14	206
	Capacity Building (Including Oil & Gas)	Ministry of Gender, Children and Social Protection Ministry of Youth and Sports Ministry of Roads and Highways Ministry of Interior Ministry of Trade and Industry Ministry of Local Government and Rural Development	173,469,963.84	25
2014 - 2016	Expenditure and Amortisation of Loans for Oil and Gas Infrastructure	Ministry of Finance Ministry of Energy	616,628,936.92	9
	Agriculture Modernisation	Ministry of Food and Agriculture Ministry of Fisheries and Aquaculture	198,066,034.88	28
	Roads and Other Infrastructure	Ministry of Interior Ministry of Roads and Highways Ministry of Works and Housing Ministry of Transport Ministry of Energy	542,811,085.68	253

Year	Priority Area	Implementing MDAs/Sectors	Amount Disbursed (GHS)	Number of Payments/Projects
		Ministry of Education Ministry of Health		
	Capacity Building (Including Oil & Gas)	Ministry of Education Office of Government Machinery/Office of the President	225,111,576.10	9
2017 - 2019	Physical Infrastructure & Service Delivery in Health	Ministry of Health	77,697,911.36	92
	Physical Infrastructure & Service Delivery in Education	Ministry of Education Office of Government Machinery/Office of the President	1,193,116,823.22	35
	Agriculture	Ministry of Food and Agriculture	218,309,736.13	136
	Road, Rail and Other Critical Infrastructure Development	Ministry of Special Development Initiative Ministry of Roads and Highways Ministry of Works and Housing Ministry of Transport Ministry of Energy	878,973,541.85	342
2020	Education and Health Service Delivery	Ministry of Education Office of Government Machinery/Office of the President Ministry of Health	698,243,057.04	64
	Industrial Development	Ministry of Trade and Industry	31,800,000.00	1
	Agriculture	Ministry of Food and Agriculture	79,017,787.45	53
	Road, Rail and Other Critical Infrastructure Development	Ministry of Interior Ministry of Roads and Highways Ministry of Works and Housing Ministry of Transport Ministry of Energy Ministry of Defense	1,506,322,629.56	527

Year	Priority Area	Implementing MDAs/Sectors	Amount Disbursed (GHS)	Number of Payments/Projects
		Ministry of Regional Integration and Reorganisation		

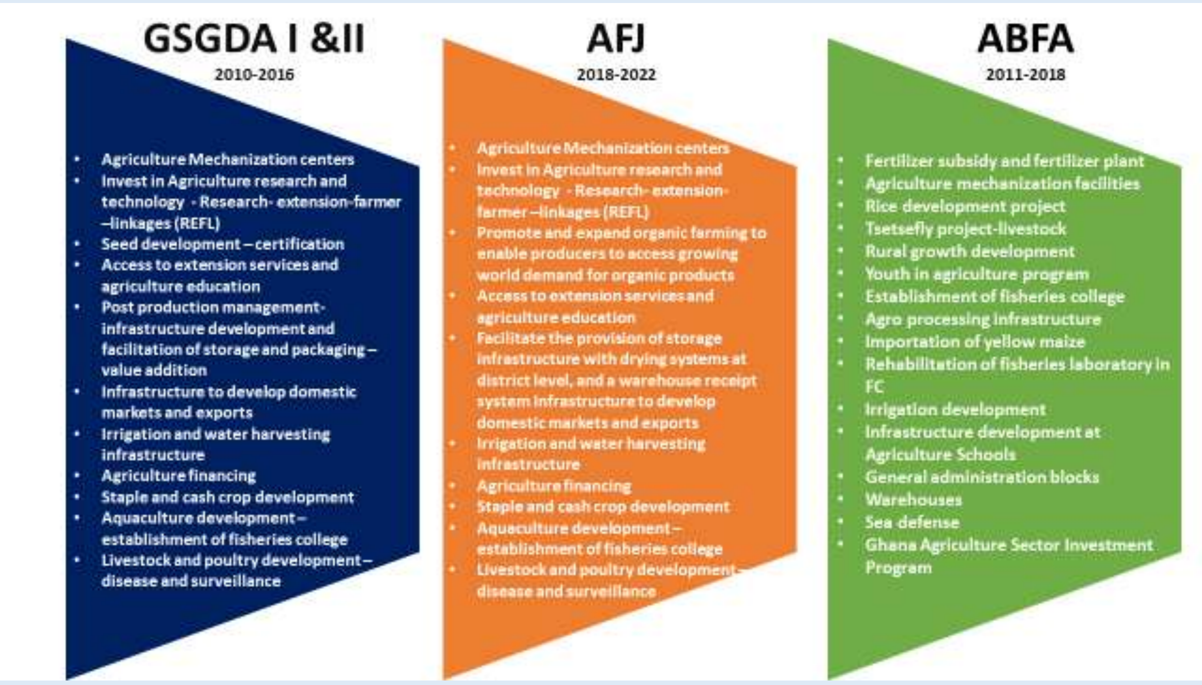
Source: Authors' construct based on PIAC and Ministry of Finance data

Box 4 — Agriculture Sector in Focus

Alignment between ABFA Interventions and Agriculture Sector Medium Term Strategies

ABFA interventions align with the national medium-term strategies. However, there is a high probability that these interventions are not prioritised to ensure proper sequencing and timing of projects to generate higher socioeconomic returns. Under its budget guidelines and advice, the Ministry of Finance issues a budget ceiling for each sector to prioritise needs. Whiles these ceilings are usually significantly below sector-specific needs, they are further accompanied by high political interference to classify certain projects as "critical" without any technical justifications. The same story can be told for projects selected under ABFA financing.

National Strategy Interventions versus ABFA Interventions



For the period under review, a chunk of ABFA financing of the Agriculture sector was spent on direct service provision. Over 54% of total financing was spent on irrigation development and fertiliser subsidy program. Whiles these were captured as interventions under the national medium-term strategies, its selection under ABFA might not have been prioritised technically. Consequently, spending on specific projects under irrigation and fertiliser subsidy was inconsistent on a year-to-year expenditure basis. Moreover, it was challenging to identify ***complementarities*** between different projects funded by ABFA. For instance, while 44% of ABFA allocated to the sector was expended on irrigation development, there was no information on the sequencing of these projects to ensure the development of other complementary projects such as extension pipes or canals to nearby farms. It is understood that a chunk of irrigation development expenses was for debt to contractors, construction costs, consultancy services, among others.

In addition, in some cases, the ***time dimension*** of a project was not considered during selection to inform further investments and corresponding disbursements to operation and maintenance (O&M) and hence overall project effectiveness. For example, based on impact studies conducted by the Africa Centre for Energy Policy[181], ABFA funded irrigation projects in Tono and Wiaga did not have clear O&M plans nor any training for locals to mend potential wear and tear. Spending on infrastructure or service delivery must be carefully planned to inform O&M decisions to ensure project effectiveness. It is understood that this is a major setback for most of the ABFA funded infrastructure projects in the sector, evidenced by information from PIAC's field visit reports.

Box 5 — Prioritisation of public spending under ABFA

Prioritisation is important in public budgeting as not all projects will have the same economic and social impact. Further, some projects to generate efficient returns, require other projects to be completed first or developed concurrently. In Ghana, most public projects are deemed critical due to the high politicisation and public demands for infrastructure. In addition, the macro-fiscal challenges (including wages and salary and interest payments dominating about 80% of domestic revenues) facing Ghana impact significantly on domestic revenues and expenditure, thus tightening the fiscal space. Therefore, prioritisation is politically and operationally daunting.

Data and analytical capacity, which underscores effective prioritisation, is limited in Ghana. However, ***technical prioritisation*** is important for intra-sector allocation and spending as they bring to bear certain critical considerations for selection of projects to be financed by public resources. Unrealistic budgets either produce large fiscal imbalances or, not being implemented, make the budget an irrelevant tool. Politically, poorly prioritised budgets raise expectations, leading to disenchantment. In addition, the ***time dimension*** of a project should be a key consideration to prioritisation as it informs further investments in operation and maintenance (O&M) and overall project effectiveness.

ABFA project prioritisation filter

- The first filter for prioritisation under ABFA is that each project should contribute to the overall medium term framework objective or national strategy objectives and be part of each beneficiary MDAs medium term plan. These should be clearly specified

[181] ACEP (2018) AN EVIDENCE BASED IMPACT STUDY OF OIL FUNDED IRRIGATION PROJECTS, 2018. https://s3.amazonaws.com/new-acep-static1/reports/VFM+IMPACT+ASSESSMENT+REPORT.pdf

- Projects should be ranked based on four simple criteria:
    - ***Rationale:***
        - Should this be done by the public sector, or can the private sector adequately undertake the activity?
        - Does the project target the poor?
    - ***Cost-effectiveness:***
        - For the output of the project, has the least-cost alternative been identified?
        - Are multi-year implications laid out, and is the project likely to be self-financing after completion?
    - ***Benefit-cost (including identification of beneficiaries):***
        - Have benefits (e.g., social, financial) been quantified?
        - Do benefits exceed costs?
    - ***Risk and mitigation*:**
        - Is the project likely to be completed on time?
        - Have allowances been made to address potential physical and financial contingencies?
        - Are there institutional/managerial/technical constraints in carrying out the project?
        - Are there any environmental risks?

Based on this ranking, the top-priority projects can be included in ABFA to the sector resource envelope. It should be noted that a framework along the lines put forward above would need to be flexible in accordance with sector-specific circumstances. For example, some sectors such as security are not expected to be self-financing, so the point in the second criterion about a project being self-financing after completion would not apply.

5.7.2 *Macro fiscal Challenges to ABFA*

Many challenges affecting the effective and efficient utilisation of petroleum revenues, especially the ABFA, are of a macro-fiscal nature. ABFA presents an important financing opportunity for beneficiary sectors/MDAs to increase public spending capacity to contribute to overall growth under the budget. However, **the potential to achieve this is hinged on several underlying macro-fiscal factors,** including the robustness of the existing public financial management system, efficient budget preparation, implementation, monitoring and accountability system, efficient macroeconomic management systems, among others. The **evidence points to weaknesses in these underlying factors; hence the implementation of ABFA in the last decade has suffered from wider challenges associated with the macro-fiscal management, such as rising debt levels against revenue shortfalls, budget rigidities and limited discretionary fiscal space, legacy arrears and a massive pile of outstanding claims on projects**. ABFA investments have yielded some successes, but its overall impacts have been minimal, delayed, or negligible. Some of the key findings have been documented below:

Weak Project Planning and Coordination

Poor project planning and inadequate coordination between national and sub-national structures on ABFA projects have been identified as significant setbacks for ABFA projects implementation. In most cases reviewed, especially with physical infrastructure projects located in the regional and sub-regional levels, monitoring and supervision have been found to be weak. **A chunk of ABFA-funded projects is awarded and managed from beneficiary MDAs with limited or no engagements with subnational administrative structures or ultimate beneficiaries** (Box 6)**.**

Moreover, technical project details (such as contracts, delivery timelines, technical specifications) necessary for effective monitoring and supervision are unavailable locally. A **more comprehensive and decentralised project preparation, planning and monitoring process is needed to ensure ABFA projects are strictly monitored and delivered on time.** According to stakeholders interviewed, **District Assemblies should be actively involved in selecting and implementing projects in their jurisdictions to ensure that projects are priority projects and in line with the medium-term development plans of the Assemblies**. This would also ensure the adequate supervision of the projects by the Assemblies to prevent abandonment of site or shoddy work done by contractors.

Box 6 — Construction of 6-Unit Classroom Block with Ancillary Facilities at Apedwa SDA Primary School, Eastern Region

The inspection of the project was assisted by Mr. Jeremiah A. Amoafo, the Municipal Planning Officer (MPO) of East Akim Municipal Assembly, but he could not provide PIAC with any information on the cost components of the project since the Assembly was not involved in the execution of the project. He informed PIAC that the Assembly did not have any idea of the existence of such a project in the municipality until the Committee contacted him to assist with the project inspection. The classroom block was sited in a waterlogged area, and the building had begun to sink after a little over two years into its completion. The structure showed serious signs of damage due to the fact that it was sinking, and could collapse at any time looking at its state. The unstable nature of the structure was life-threatening to the students, teachers, and other facility users. Petroleum revenue supported the project with an amount of GHS139,516.

Findings/Observations

- The Municipal Assembly was unaware of the existence of the project until PIAC contacted it to assist with its inspection of the project. The MPO of the Assembly could therefore not provide PIAC with information on the cost components of the project.
- The building was showing serious signs of damage from sinking due to the poor siting of the project. The block was sited in a waterlogged area and large volumes of water passed under the building whenever it rained; and,
- Poor supervision led to the execution of a shoddy work by the contractor. This was mainly due to the Assembly's non-involvement in the execution of the project and the consequential lack of supervision thereof.

Source: PIAC Monitoring Report (2018)

Variations Between ABFA Allocations and Disbursements

Significant variations between ABFA allocations and disbursements have largely affected its implementation in the last decade. Based on data obtained and analysed, variations between allocation and disbursements affects the sustainability of multi-year infrastructure projects. Total ABFA allocations between 2011 to 2020 amounted to **GHS12.318 billion.** However, actual disbursement was **GHS6.669 billion, representing nearly 50% outturn** (Figure 46)**.** The variance emanates from multiple possible reasons:

- Firstly, **price and revenue volatility directly affect the variance between planned ABFA and actual outturn**. Whiles the Stabilisation Fund is intended to cushion ABFA to smoothen expenditures, its application has mainly been used for debt servicing. Based on the review of ABFA data, 2016 experienced significant price and revenue volatility which resulted in a variance of 50% between planned ABFA and actual outturn.
- Secondly, despite ABFA allocation to beneficiary MDAs, **internal administrative delays caused by bureaucracies in internal procurement processes of MDAs affect disbursements**
- **Poor performance by some contractors causes delays in disbursements of ABFA funds** as certificates of payments are paid upon satisfactory delivery of projects

It is understood that several projects have been stalled, abandoned, or attracted high-cost variations due to inconsistencies in disbursements. According to the Ministry of Finance, ABFA allotments may be available for disbursements. However, **delays with procurements and the performance of contractors** tend to affect disbursements (Box 7).

ABFA disbursements to the Ministry of Health has experienced significant variations between allocation and actual disbursements (Figure 47). Despite being allocated over GHS300 million, only GHS98 million, representing 32% has been disbursed to the Ministry of Health. Its inability to access ABFA funds allocated to the sector may significantly disrupt its budget implementation, particularly on multi-year projects. This underscores the need for clear guidelines and a transparent process.

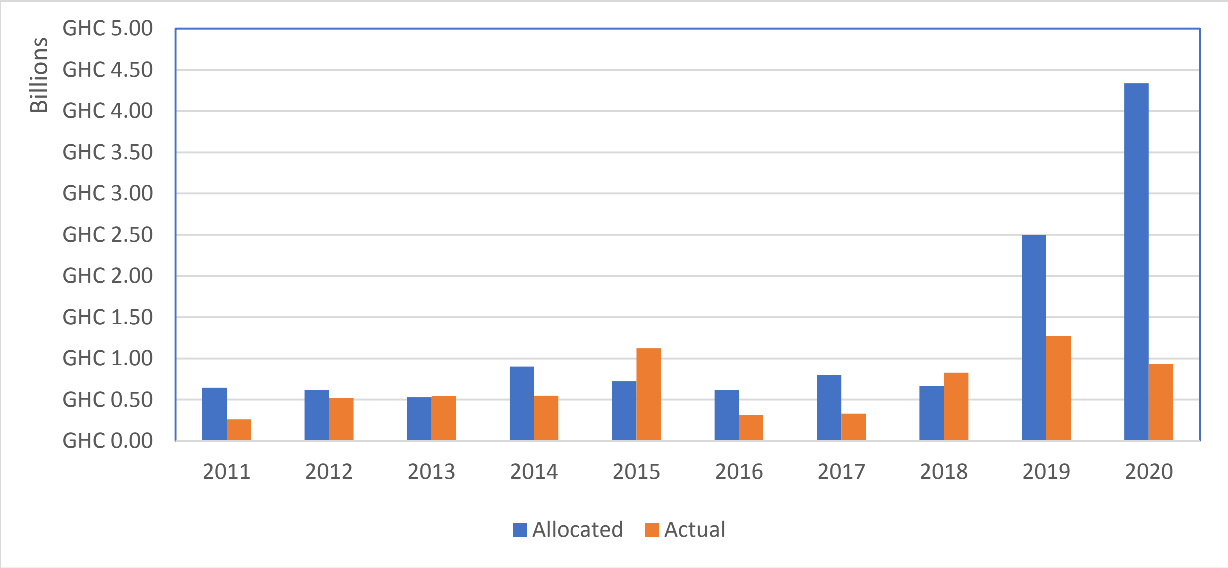


Figure 46 Variations between ABFA Allocations and Disbursements

Source: Authors' construct based on data from Ministry of Finance

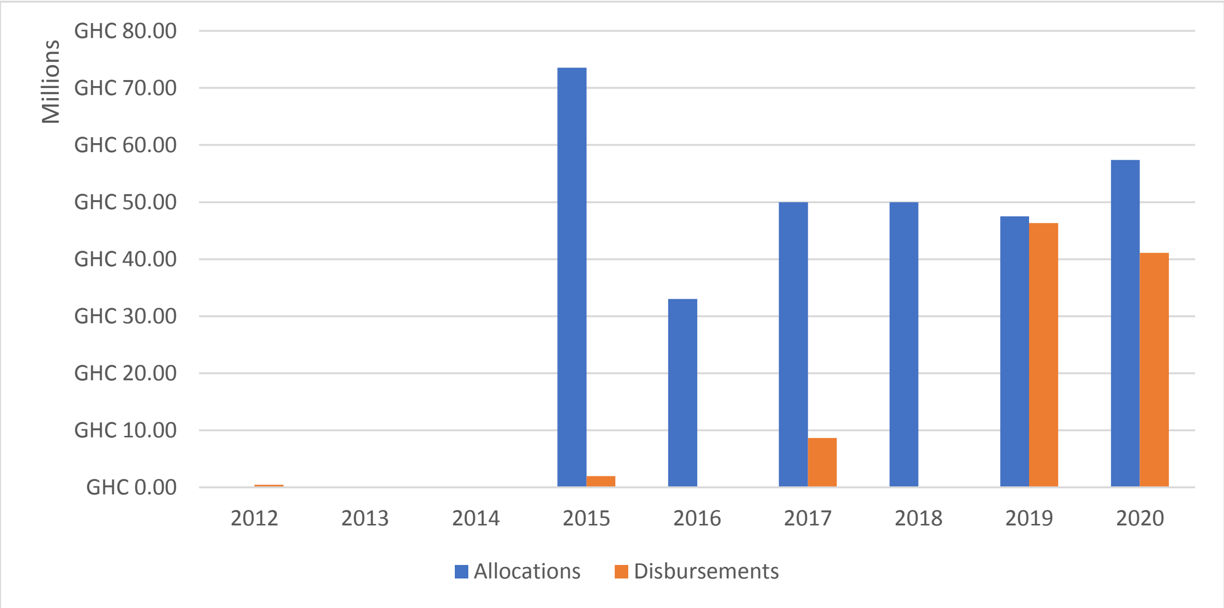


Figure 47: Health Sector Allocations vs Disbursements

Box 7 — Roads and other infrastructure in focus

(1) Rehabilitation of Bremang-UGC and Sepe Dote Main Road, Kumasi Metropolitan Assembly

The contract for the project was awarded on 4th November 2011 to Kofi Job Company Limited with an original contract sum of GH□4,954,882.07. The original contract duration was 12 months after the date of award, but the project stalled for about three years and was completed in 2014 due to delayed payments to the contractor. As a result, the project cost increased by about 77%, from GH□4,954,882.07 to GH□8,779,667.31. From PIAC's inspection, the quality of work done was poor. The team was informed that the road started developing potholes six (6) months after completion. The project serves as a ring-road for heavy-duty trucks plying the Accra-Kumasi-Tamale route. The heavy traffic required the road to have been asphalted, but it was instead constructed with a thin layer of chippings. Some road users complained that the many speed ramps on the road made it difficult for the heavy-duty vehicles to climb uphill, resulting in accidents. The road also got flooded each time there was heavy downpour since the only drainage (also uncovered) along the sides of the road easily overflowed.

Findings/Observations

- The burning of wood filings and cuttings in the open drains by nearby carpentry shops heavily contributed to the chocked drains, hence the recurrent flooding of the road.

Source: PIAC Monitoring Report (2018)

(2) Upgrading of Adukrom Area Roads

Attachy Construction Limited was awarded the contract on 10th February 2012 with a completion period of 10 months. The original contract sum for the project was GH□3,328,928.75 but the final amount certified was GH□4,856,561.06 due to project delay.

Findings/Observations

- An observation worthy of note is that this stretch of road project is much longer and better in quality (since it was an upgrade) than the Bremang-UGC and Sepe Dote Main Roads but cost less.

- Delay in the completion of the project increased the original contract sum by GH□1,527.632.31

Source: PIAC Monitoring Report (2018)

ABFA Funding and Other Funding Sources

ABFA allocations to selected beneficiary sectors are significant to their financing (constitutes an average of 28% of the total allocations). However, evidence shows that it has become a substitute for other financing sources. In the last decade, there has been a growing concern on increased borrowing and persistent budget deficit, impacting expenditure paths within the budget. This has become systemic and has further impacted the government's non-oil allocations to all sectors. Over the period under review, non-oil revenues have largely been spent on wages and salaries, ballooning recurrent expenditure, depriving financing to other critical infrastructure projects in the beneficiary sectors. **Effectively, ABFA has become a lifeline for capital expenditure financing for beneficiary sectors**.

The underlying expectations of most stakeholders were that ABFA would provide additional funding to boost capital expenditure spending under the budget. However, evidence suggests that ABFA has gradually replaced other funding sources, mainly other tax revenues. A review of the data shows that ABFA remains less than two percent of total domestic revenues. However, it remains one of the main capital expenditure financing sources for beneficiary sectors. This is largely due to weakening underlying macro-fiscal factors such as fiscal rigidities and increasing recurrent expenditures. As a result, tax revenue allocations to Agriculture, Roads and Highways and Health have largely been shifted to recurrent expenditures. ABFA has replaced dwindling capital expenditure allocations to these sectors. For instance, in the agriculture sector, the share of ABFA compared to other financing sources is about 35%.

Stakeholders have suggested that works be executed in a timely manner. However, there is virtually no information on the contract and project details to enable the MMDAs to monitor and supervise projects. The line ministries benefitting from ABFA do not exchange project information with the Metropolitan, Municipal and District Assemblies (MMDAs). Projects are developed at the centre and implemented directly by the national MDAs without adequate involvement of beneficiary MMDAs. Scanty data on all ABFA funded projects at the district assemblies and the regional office portray weak project planning, resource allocation and implementation, leading in some cases to significant delays (Figure 48). Often, there is no strict supervision for works executed, but payment is duly made for all certificates raised by contractors and consultants. The issues of significant project delays are captured by a stakeholder who remarked:

"I can cite the specific case of the Mamponteng market whose costs more than tripled. Oil money was put into its construction, but because we did not see to its completion, we put some money there, abandoned it the following year and moved on to some new items. By time we came back to it, the cost had more than tripled. I think it was even moved up five times. And that is not good enough! The same can be said of several road projects. The cost overruns permeate almost all the projects that have been funded by oil."

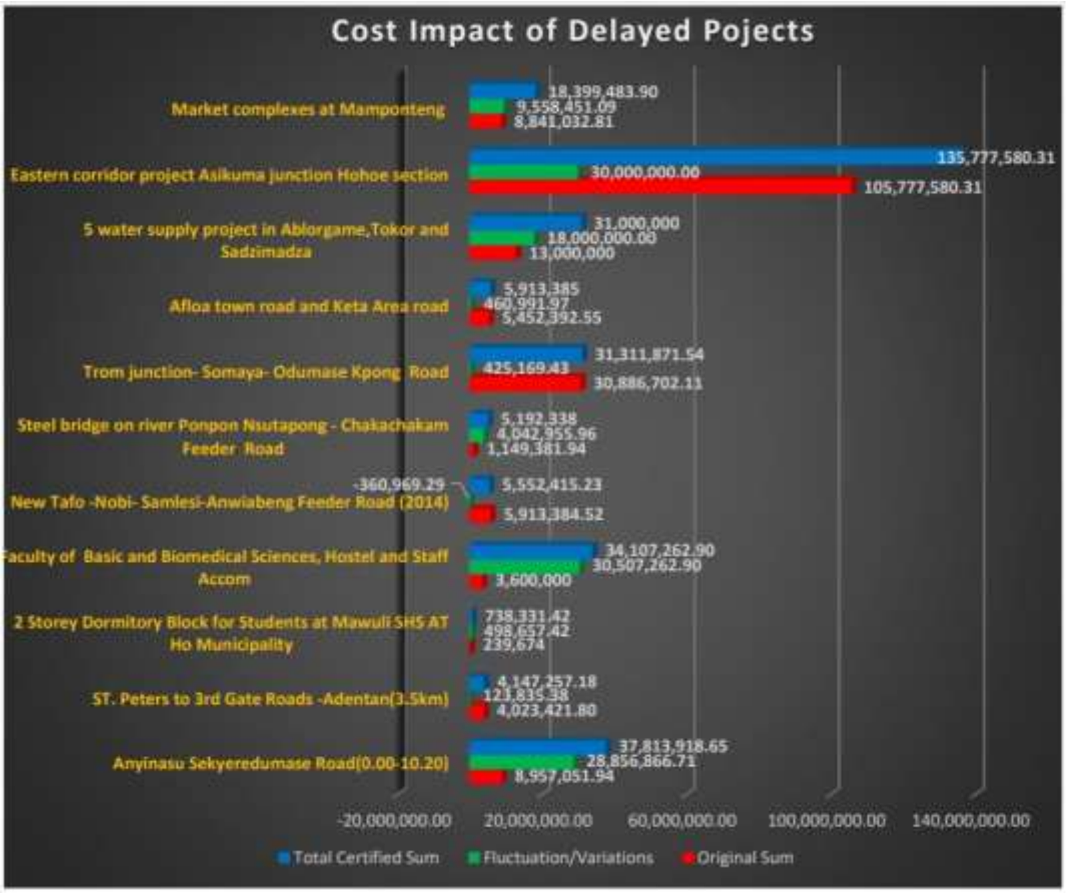


Figure 48: Effects of Delayed ABFA Projects

Source: PIAC Monitoring Report, 2018

Issues with Unutilised ABFA

The accumulation of unutilised ABFA between 2017 to 2019 amounted to GHS1.479 billion. Unutilised ABFA funds mean funds allocated to beneficiary MDAs but not disbursed. PIAC and other CSOs have raised concerns about the transparency and accountability of unutilised ABFA. However, there are no regulations or guidelines for managing these monies. The **current arrangements of the unutilised ABFA funds follow the government's Treasury Single Account (TSA) policy, where all unspent government cash resources are swept back into the Consolidation Fund**. Section 46 of the 2016 *Public Financial Management Act* establishes the TSA as a unified structure that consolidates the government's cash resources. It is common practice for most governments to ensure unutilised cash is consolidated to generate optimum utilisation of its cash resources.

However, with ABFA having specific objectives for its use and managed under a different legislative framework (PRMA), it is unclear whether these funds can be reallocated to the same projects to achieve their intended objectives. Further, concerns[182] have been raised on the implications of this on transparency and accountability of the funds. In 2020, the Ministry of Finance provided what it said was an account of the unutilised ABFA funds

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[182] See https://www.graphic.com.gh/news/general-news/piac-to-investigate-gh-403-74m-abfa-account.html

after years of persistent demands by PIAC even though stakeholders indicated that it was crucial for the reallocation to be guided by an efficient and transparent process (Figure 49).

)7. The total ABFA balances of GH¢1,479.90 million has been fully utilised in 2020 as follows:

a) GH¢471.59 million was transferred to the Road Fund to reduce the Fund's indebtedness to road contractors and creditor banks to avoid payment of interest on delayed payments;

b) Gh¢180.7 million was utilized under the Ministry of Roads and Highways for roads infrastructure; and

c) GH¢827.60 million, was utilized to partially meet the shortfall in ABFA receipts caused by the impact of the COVID-19 pandemic and its associated effects on crude oil prices globally. This could not be reported in the 2019 Annual Report because the transaction was yet to be finalised.

Figure 49: Reallocation of Unutilised ABFA Funds (2017 -2019)

Source: 2020 Ministry of Finance Annual report on Petroleum Funds

5.8 Conclusion

Under the PRMA, the ABFA is the main conduit for petroleum revenue financing under the national budget. In practice, it presents the strongest link between petroleum revenues and inclusive economic growth. In this section, we analysed the disbursement and utilisation of the ABFA, including the three core themes of public investments, consumption (recurrent spending) and PIAC Funding. We further conducted ABFA spending analysis in the priority areas specified by the PRMA and undertook a political economy analysis of the macro and spatial impact of ABFA spending. Finally, we undertook an impact multiplier commentary, encompassing a comprehensive literature review of published works on the impact of petroleum revenues on Ghana's real sector.

Over the last decade (2011 – 2020), ABFA has been a critical financing source for the national budget to increase public spending capacity and generate higher social returns. Nevertheless, while total benchmark revenue allocations to ABFA amounted to GHS9.41 billion (US$2.61 billion), allocations, on the other hand, amounted to GHS8.51 billion (US$2.28 billion), leaving an estimated 900 million balance which was swept back into the Consolidated Fund under the government's Treasury Single Account (TSA) policy. The sweeping of these funds into the Consolidated Fund and delayed attempts to provide a justifiable explanation raises concerns about the transparency and accountability of the funds. In 2020, the Ministry of Finance provided what it said was an account of the unutilised ABFA funds after years of persistent demands by PIAC even though stakeholders believed the reallocation needed to be guided by an efficient and transparent process.

In terms of allocations, we find that the ABFA has been spent on seven (7) out of the twelve (12) priority areas specified under the PRMA. These include agriculture, amortisation of loans, capacity building (including oil and gas), health, education, industrial development, roads, rail and other critical infrastructure. Accordingly, ABFA allocations have been on the following priority order (scale): (1) Roads, railways, and other infrastructure: 53.51% of total ABFA allocations; (2) Physical Infrastructure and service delivery in education: 21.74%, of which government's flagship programmes such as the Free SHS policy accounts for most of the ABFA education spending; (3) Expenditure on amortisation of loans for oil and gas infrastructure: 10.11%; (4) Agriculture modernisation: 8.02%; (5) Capacity building (including oil and gas): 4.21%; (6) Physical infrastructure and service delivery in health: 1.40%; (7) Ghana Infrastructure Investment Fund (GIIF): 0.52%; (8) Industrialisation: GHS31.80 billion (0.37%); and (9) Public Interest and Accountability Committee (PIAC): 0.14% of total ABFA allocations.

We find evidence of ABFA allocations being spread across the length and breadth of the country, thus partially satisfying the requirement under Section 21(2)(c) of the PRMA to undertake even and balanced development of the regions. However, the micro-level evidence base also indicates that the selection of several ABFA-funded projects was not participatory; it was instead imposed top-down from Accra rather than bottom-up. This hindered the ability of locals, including even district assembly members, to either know about these projects in their locales or the status of completion.

Furthermore, we find evidence of the ABFA allocations being spread over multiple payments/projects, indicating thin-spreading, an issue that multiple stakeholders have consistently raised as negating the impact of oil-funded projects. This is not consistent with the spirit behind the requirement in Section 21(2)(a) of the PRMA to maximise the rate of economic development. We assess that the issue herein has been the focus on "rate" – that is, GDP growth – without a detailed focus on the quality of the growth as also required in Section 21(2)(b), which stipulates the need to promote equality of economic opportunity to ensure the well-being of citizens.

While the PRMA mandates ABFA project selection to be guided by a medium-term expenditure framework (MTEF) aligned with a long term national development plan, a review of most medium-term plans (MTPs) of beneficiary Ministries indicates inadequate analysis and evidenced-based data to back the decisions in these documents. This is highly symptomatic of Ghana's underlying political settlements regime whereby project selection in the national budget is very political — driven by political party manifestos rather than medium-term plans (MTPs) or even a national development plan. As such, the direction of spending and required appraisal methods to support project prioritisation and selection, transparent and competitive procurement system, strong oversight, monitoring, internal control mechanisms, and independent public auditing of projects tend to be weakened. Consequently, the selection of projects is also not evidence-based. This leads to documented implementation challenges, as evident in the projects funded with ABFA.

In essence, ABFA investments have yielded some successes, but its overall impacts have been minimal, delayed, or negligible. Many stakeholders believe ABFA has not delivered on their expectations in maximising the rate of economic development and enhancing their well-being. Several of the challenges affecting the effective and efficient utilisation of petroleum revenues, especially the ABFA, are macro-fiscal in nature. The potential for ABFA to deliver optimal outcomes is hinged on several underlying macro-fiscal factors, including the robustness of the existing public financial management system, efficient budget preparation, implementation, monitoring and accountability system, efficient macroeconomic management systems, among others. However, the evidence points to weaknesses in these underlying factors. Hence the implementation of ABFA in the last decade has suffered from broader challenges associated with macro-fiscal management.

6 Management of the Ghana Petroleum Funds

This section covers

- The philosophical underpinnings of the Ghana Petroleum Funds
- Analysis of yearly flows into the Ghana Petroleum Funds (GPF)
- Political economy analysis of the management and use of the GPFs over the past decade

6.1 Philosophical underpinnings of the Ghana Petroleum Funds: Stabilisation Fund and Heritage Fund

The *Petroleum Revenue Management Act,* 2015, Act 815 as amended, provides the "framework for the **collection, allocation** and **management of petroleum revenue** in a **responsible, accountable and transparent manner** for the **benefit of the citizens of Ghana**".[183] This provision in the Act is premised on Article 36 of the 1992 Constitution, which mandates the State to "take all necessary action to ensure that the national economy is managed in such a manner as to maximise the rate of economic development and to secure the maximum welfare, freedom and happiness of every person in Ghana…" among others.

Funds established under the PRMA include:

- **The Petroleum Holding Fund (PHF):** Petroleum revenues from the various fiscal instruments such as royalties and other taxes are foremost deposited into the PHF before onward disbursement into any other fund — that is, the PHF is only a transitory fund. The PHF is established under Section 2 of the PRMA and is managed by the Bank of Ghana. However, the responsibility for assessment, collection, and accounting of the revenues falls under the Ghana Revenue Authority (GRA) as per Section 3 of the PRMA. Revenues are assessed as due monthly and sometimes quarterly, in line with the respective petroleum contracts.

- **The Ghana Petroleum Funds (GPF):** The GPF comprises two separate funds, namely the **Ghana Stabilisation Fund (GSF) and The Ghana Heritage Fund (GHF)**, created under Sections 9 and 10 of the PRMA as amended, for investments and savings as well as supporting intra-generational equity. The PRMA stipulates that not less than **30% of the benchmark revenue or actual petroleum revenue in any year**

[183] See object of the PRMA Act 815

must be paid into the GPF. The GPF is allocated funding from the PHF after allocation foremost to the Annual Budget Funding Amount (ABFA).

- ***The Ghana Stabilisation Fund (GSF):*** The object of the GSF as per Section 9(1) of the PRMA as amended is to **cushion the impact on or sustain public expenditure capacity during periods of unanticipated petroleum revenue shortfalls**. Thus, the **GSF is created to allow the government to take from it in times of shocks to the economy —** such as the 2015-2017 commodities price slump and the 2020 Coronavirus (COVID-19) pandemic**.** Both of these events caused significant unanticipated shortfalls in oil revenue, necessitating the sourcing of extra monies to shore up the budget. The GSF is allocated not more than 70% of GPF allocations – **that is, a maximum of 21% of total petroleum revenues, excluding the NOC funding**. The Minister of Finance under Section 23(3) of the PRMA is given the power to place an annual cap on the GSF, subject to parliamentary approval. Once this cap is attained, the accumulated mounts over the cap can be transferred into the Contingency Fund or used for debt repayment.

- ***The Ghana Heritage Fund (GHF):*** As per Section 10(2) of the PRMA, as amended, the GHF is meant to support inter-generational equity objectives by providing an endowment or seed fund to support the development of future generations after petroleum reserves have been depleted. Monies in the GHF are invested outside Ghana in low-yielding safe investments, commensurate with the risk appetite or profile specified within the PRMA — that is, safe investments are by extension, low yielding. Thus, the **range of qualifying instruments is limited to investment-grade bonds and convertible currency deposits** issued by sovereign states, Central Banks, and multilateral organisations such as the Bank for International Settlements.[184] Parliament is mandated to review, at fifteen (15) year intervals, the restrictions placed on transfers from the GHF. They are also then allowed to also transfer portions of the accrued interest from the GHF into any other fund established under Act 815 as amended.

Section 20(1) of the PRMA as amended stipulates that **within a year after the cessation of oil production** (after petroleum reserves have been depleted), then **both the amounts held in the GSF and the GHF are to be merged into a single fund to be called the Ghana Petroleum Wealth Fund (GPWF)**. Following this, funding of the budget via the ABFA is to be through the dividends from GNPC, the national oil company and the earnings from the GPWF. This implies the need to proactively grow the amounts held in the GSF and GHF while retooling the NOC to generate more value through its investments. In other words, the GPWF is to provide permanent income. Thus, the Ghana Heritage Fund can only be accessed when the country’s petroleum reserves are entirely depleted.

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[184] PIAC 2020 Annual Report, at p.82; Ackah, I. (2021). No African country is Norway! A perspective on sovereign wealth funds and the energy transition. *Energy Research & Social Science*, *75*, 102048.

As per Section 27 of the PRMA, as amended, the **monies in both the GSF and GHF are to be invested in qualifying instruments, which are to be reviewed every three years** or sooner by the Minister of Finance on the advice of the Investment Advisory Committee (IAC). These qualifying investment instruments are to be stipulated by an Executive Instrument (EI). The varied philosophical underpinnings of the GSF and GHF is reflected in their investment objectives, as shown in Figure 50. In essence, the **GSF is a fiscal stabilisation fund with a relatively short investment horizon and highly liquid investments in the portfolio** to meet unanticipated withdrawals.[185] On the other hand, the **GHF is a savings or trust fund to create wealth for future generations**. Thus, its **investment profile is more long term** and should be able to take more risk while benefiting from illiquidity premium (Figure 51 and 52).

The Bank of Ghana manages the GPFs under a three-tier governance structure (Figure 52). Firstly, the Foreign Exchange Reserves Management Committee (FERMC), which the Central Bank Governor chairs, has overall responsibility for providing the strategic direction to the GPFs.[186] Secondly, the Ghana Petroleum Funds Investment Committee (GPFIC) then provides tactical investment direction at an operational level. There is also a Ghana Petroleum Funds Portfolio Management Committee (GPFPMC) which implements portfolio decisions. The GPFPMC meets bi-weekly to review market developments. Lastly, the Ghana Petroleum Funds Secretariat oversees these activities.[187] The Bank of Ghana reports that the management framework for the GPFs is part of its enterprise risk register.[188] This register is subject to semi-annual surveillance by an external ISO auditor as part of **being compliant with the Bank of Ghana's International Standards Organisation (ISO 27001).** Other organisations involved in providing internal and external oversight and accountability of the funds include the Auditor General, Parliament, Investment Advisory Committee, and PIAC (Figure 52).

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[185] Bank of Ghana (n.d.). Objectives of the GPFs – Bank of Ghana. Available at: https://www.bog.gov.gh/ghana-petroleum-funds/investment-objectives

[186] Bank of Ghana (n.d.). Bank of Ghana : Petroleum Funds Internal Management Structure. Available at: https://www.bog.gov.gh/ghana-petroleum-funds/governance-framework

[187] Ibid (n 186)

[188] Ibid (n 186)

Ghana Stabilisation Fund (GSF)

Purpose: GSF is a fiscal stabilisation fund, has a short investment horizon with highly liquid investments to be able to meet unanticipated withdrawals

Objectives

- **Safety:** To maintain assets of high credit quality with negligible default risk while receiving a specified rate of return as will be determined from time to time.
- **Liquidity:** To ensure that the portfolio of the Ghana Stabilisation Fund holds ample liquid instruments to meet immediate fiscal needs in the event of unanticipated petroleum revenue shortfalls.
- **Capital Preservation:** To safeguard the capital of the Ghana Stabilisation Fund.

Ghana Heritage Fund (GHF)

Purpose: GHF is a savings fund to create wealth for future Ghanaian generations, a long investment horizon, with the ability to take more risk and benefit from illiquidity premium.

Objectives

- **Safety:** To maintain assets of high credit quality with negligible default risk while receiving a specified rate of return as will be determined from time to time.
- **Capital Preservation:** To ensure that the capital of the Ghana Heritage Fund is preserved.
- **Diversification:** To invest in a mix of negatively correlated asset classes in proportions that reduce risk and maximises the real rate of return over the medium to long term.

Figure 50: Investment Objectives of the GSF and GHF

Source: Adapted from Bank of Ghana

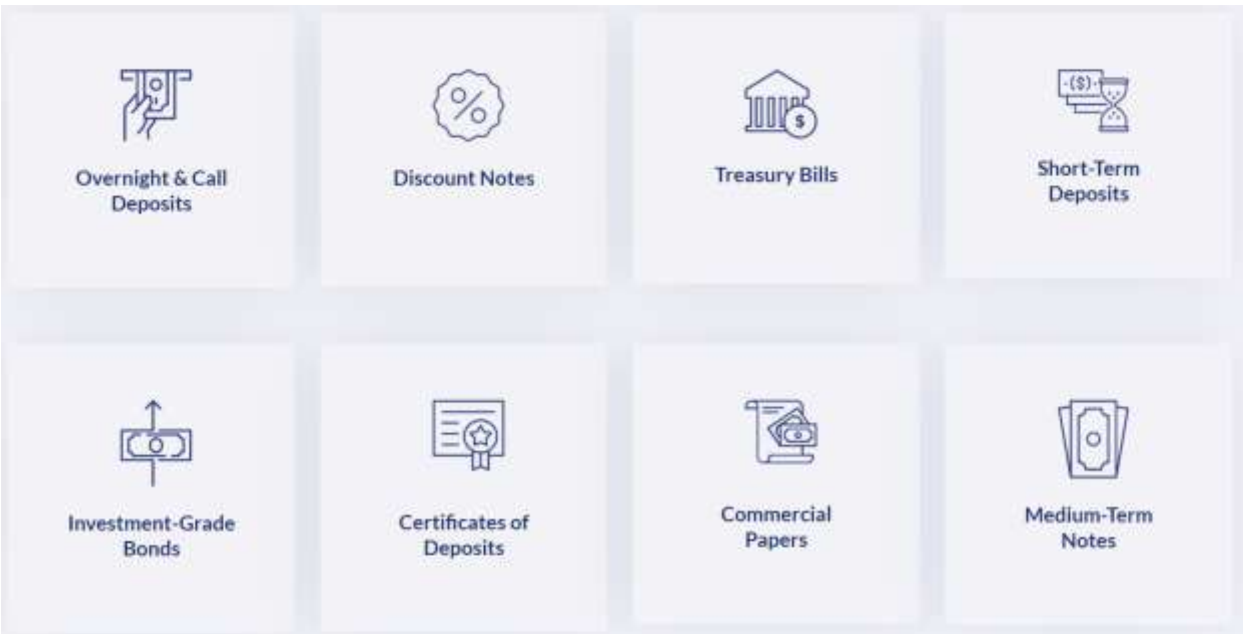


Figure 51: How the GPFs are invested

Source: Investment Advisory Committee

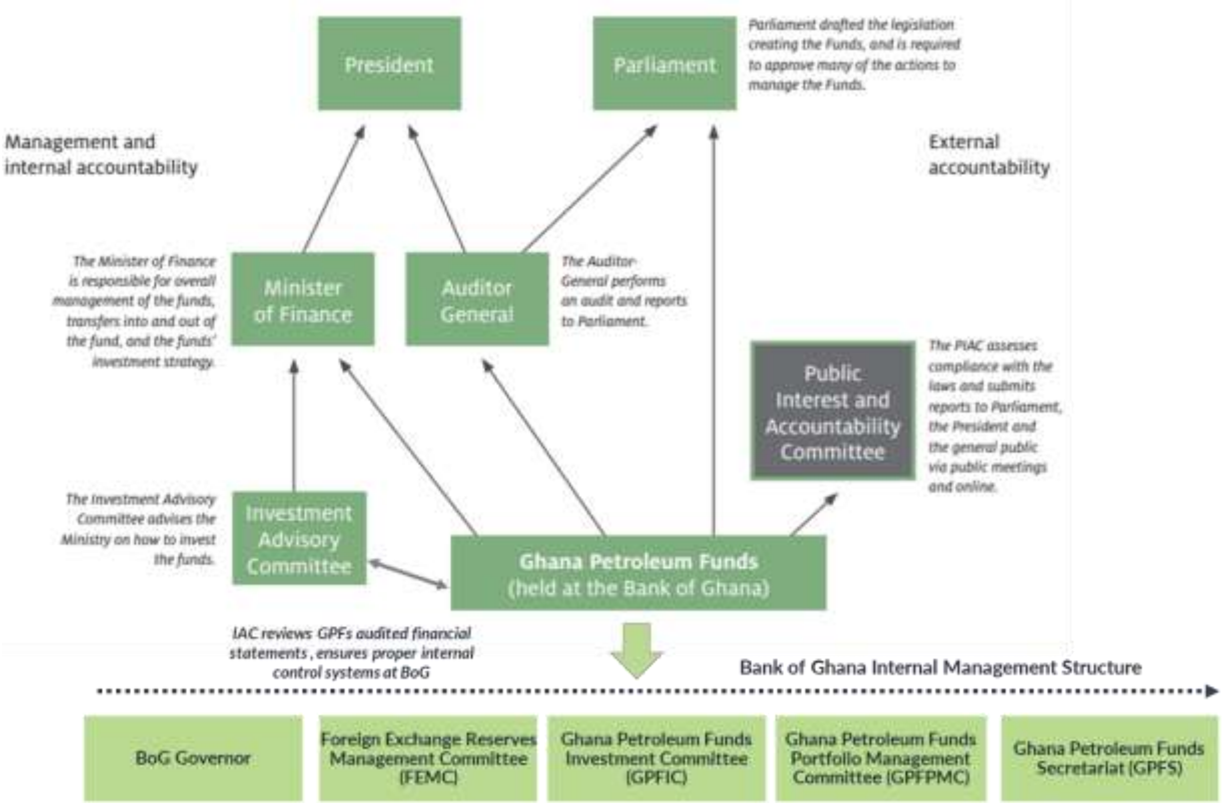


Figure 52: Petroleum Funds Management Structure

Source: Adapted from NRGI and Bank of Ghana

Box 8 – Bank of Ghana's Management of the Petroleum Funds

BANK OF GHANA

Ghana's central bank (The Bank of Ghana) is entrusted with day-to-day operational management of the various petroleum funds as per Section 26 of Act 2015 (as amended). These are the Petroleum Holding Fund (PHF), the Ghana Stabilisation Fund (GSF), the Ghana Heritage Fund (GSF) and the Ghana Petroleum Wealth Fund (GPWF). The Bank of Ghana regularly publishes several reports governing its fiduciary duties on the four funds established under the PRMA.

- **Ghana Petroleum Fund Semi-Annual Reports:** These half-yearly reports are available online at the Bank of Ghana's website, covering January 2013 to June 2021. The reports can be accessed at https://www.bog.gov.gh/ghana-petroleum-funds/gpf-semi-annual-reports (Accessed: 15 October 2021).
- **Annual Reports and Financial Statements:** The Central bank publishes annual reports and audited financial statements on the management of the petroleum funds. There is a regular quarterly audit of the funds by the Bank of Ghana's internal auditors and annually by external auditors. The 2015 to 2018 reports can be publicly accessed at

https://www.bog.gov.gh/ghana-petroleum-funds/gpf-financial-statements (Accessed: 15 October 2021).

- **Frequently Asked Questions (FAQs)**: The Bank of Ghana has also published a helpful FAQ page on its website, which offers a primer into SWFs in general and the Ghana Petroleum Funds in particular. The FAQ can be accessed at https://www.bog.gov.gh/ghana-petroleum-funds/frequently-asked-questions (Accessed: 15 October 2021).

6.2 Analysis of receipts and returns on investments into the Ghana Petroleum Funds (GPF)

6.2.1 *The Ghana Stabilisation Fund (GSF)*

The GSF has been allocated US$1.39 billion since crude oil production commenced in late 2010 to December 2020 (Figure 53a). The fund has earned Ghana about US$24 million as income (returns) from investments over the period. Investment income came from holdings in US Treasury bills, agency bonds, sovereign bonds and supranational bonds, among others (Table 24). For example, the following investment instruments were held in 2020: seven (7) US Treasury bills totalling US$192.67 million, two (2) agency bonds totalling US$3.01 million and one (1) sovereign bond totalling US$3.29 million.[189] The GSF has largely generated positive and stable returns — ranging between 0.01 to 1.77% — in all the years under consideration except a negative rate in 2015.[190] Cumulatively, allocations or receipts from 2011-2020 and investment income from the fund amounted to US$1.41 billion.

On the other hand, the government made withdrawals to the tune of US$1.21 billion over the same period, leaving a closing book balance of US$199.99 million at the end of 2020 (Figure 53a)**.** There have been five (5) yearly or nine (9) half-yearly withdrawals over the period (Figure 53b). **In total, an amount of US$430.64 million was withdrawn from the GSF between 2014-2016, compared with US$780.64 million between 2017 and 2020** (Table 25). These withdrawals have largely been in line with the *raison d'etre* of the fund – that is, "**cushion the impact on or sustain public expenditure capacity during periods of unanticipated petroleum revenue shortfalls"** as per the PRMA, as amended. The withdrawals from the GSF have been to four main accounts operated by the Ministry of Finance, namely: (1) The Contingency Fund; (2) Debt Service Account (DSA) for Debt Repayment; (3) ABFA; and (4) the Sinking Fund. For example, in line with Section 23(3) of the PRMA, the government withdrew a total of US$305.68 million from the GSF in 2014, with US$17.43 million being allocated to set up the Contingency Fund and another US$288.25 million to the DSA.[191] Of the US$288.25 deposited into the DSA, US$179.81 million was used to retire domestic debt, and another US$100 million was used as seed money for the Sinking Fund - used for

[189] See PIAC 2020 report, at p.85

[190] Ackah, I. (2021). No African country is Norway! A perspective on sovereign wealth funds and the energy transition. *Energy Research & Social Science*, *75*, 102048.

[191] See PIAC 2015 Annual Report, at p.62

Sovereign Bond Liability Management to repay part of the government's 2017 Eurobond.[192] Both the Sinking Fund and DSA were eventually swept by the Bank of Ghana at the end of the 2014 financial year but were eventually restored.[193] These developments followed the placing of a cap of US$250 million on the GSF within the 2014 National Budget, in line with Section 23(3) of the PRMA.[194] In essence, this was to deal with some of the balance of payments challenges at the time.

In the 2015 budget (presented to Parliament in November 2014), the government initially sought to increase the cap on the GSF to a moving cap of between US$300-400 million *"to achieve the twin benefit of* gradually boosting *the GSF*"[195]. However, following the commodities price slump starting from mid-2014 and continuing into 2015, **the government, during its mid-year budget in July 2015, reduced the cap on the GSF to US$150 million remained so for the rest of the year**.[196] The effect of the price fall was that the US$396.17 million of actual petroleum receipts in 2015 was 46% lower than the projected revenue (as revised) and also 60% lower than 2014.[197] Thus, following this revision to the GSF, an amount of US$95.02 million, being the excess over the GSF cap of US$150 million, was transferred into both the Sinking Fund (US$47.51 million) and the Contingency Fund (US$23.76 million).[198] Also, an **amount of US$53.69 million was withdrawn from the GSF and deposited in the ABFA to compensate for the shortfall in projected quarterly ABFA due to the persistent decline in crude oil price**s. However, no withdrawals were made between 2016 and 2017, despite the continued slump in oil prices while the cap remained US$200 million during this time as well.

The cap on the GSF was revised upwards to US$300 million in the 2018 Budget Statement. Following the rally in crude oil prices and improved petroleum revenue inflows, an amount of US$283.97 million, being the excess over the cap, was transferred to the Sinking Fund to repay debts under Section 23(3) of the PRMA (Table 25). **There was no withdrawal to shore up the budget, given that the ABFA projection had been fully met**.[199] Likewise, the GSF was capped at US$300 million in the 2019 fiscal year, with an amount of US$189.13 million being withdrawn as the excess over the cap (Table 25). These amounts were also paid into the Sinking Fund for debt repayment.

Finally, the extraordinary events of 2015 repeated themselves in 2020, with the original budgeted[200] GSF cap of US$300 million needing to be revised downwards to US$100 million due to the COVID-19 pandemic – a national emergency. As a result, total GSF withdrawals for 2020 amounted to US$307.54 million, of which US$218.95 million being the excess over the cap was withdrawn and transferred to the Contingency Fund in April 2020 to fund the Coronavirus Alleviation Programme (CAP).

[192] See 2014 Annual Budget Statement of the Government of Ghana, at p.31 (para 108-109)
[193] See 2016 Annual Budget Statement of the Government of Ghana, at p.35 (para 121-122)
[194] See 2014 Annual Budget Statement of the Government of Ghana, at p.30 (para 106)
[195] See 2014 Annual Budget Statement of the Government of Ghana, at p.46 (para 179)
[196] See 2015 Mid-Year Budget Statement of the Government of Ghana, at p.34 (para 158)
[197] See PIAC 2015 Annual Report, at p.72
[198] See PIAC 2015 Annual Report, at p.65
[199] See PIAC 2018 Annual Report, at p.68
[200] The 2020 budget was presented to Parliament on 13 November 2019

CAP was part of a series of extraordinary fiscal measures announced by the Ghanaian government in late March 2020 to mitigate the adverse effects of the pandemic.[201]

Overall, a closer analysis of the GSF indicates that 74% of the withdrawals from the GSF have been used for debt repayment, 21% have been allocated to the Contingency Fund to deal with national emergencies such as the COVID-19 pandemic and another 4% to shore up ABFA shortfalls (Table 25)**.** The debt repayment comprises 50% of the withdrawals from the GSF going into the Sinking Fund and another 24% allocated to the debt service account. These debt repayments are symptomatic of developments within the Ghanaian economy over the past decade. Due to low domestic revenue mobilisation, increased interest payments have occasioned excessive borrowing (both domestically and externally) to meet budgetary shortfalls. For example, since 2007, Ghana has borrowed over US$12.5 billion in Eurobonds.[202] The country's servicing needs have become expensive due to the high coupon rates and volatility of the cedi, the local currency. Interest payments on debt were the single largest item in the 2021 and 2022 budget, ahead of employment compensation, grants to other government units or capital expenditure.[203] As a result, **Ghana continues to be classified at high risk of debt distress – for both external and overall public debt**.[204]

[201] See Statement to Parliament on Economic Impact of the COVID-19 Pandemic on the Economy of Ghana, 30 March 2020. Available: https://www.mofep.gov.gh/sites/default/files/news/MoF-Statement-to-Parliament_20200330.pdf

[202] See Acheampong, T. & Amoah-Darkwah, E. (2020). *'Performance of Ghana's Economy and Capacity for Financing Key Medium-Term (2021-2024) Flagship Policies and Programmes'*. Ghana Centre for Democratic Development (CDD Ghana). Available: https://doi.org/10.13140/RG.2.2.28240.12809

[203] See 2022 Annual Budget Statement of the Government of Ghana, at p.64 (para 256-262)

[204] IMF (July 2021). IMF Executive Board Concludes 2021 Article IV Consultation with Ghana. Available: https://www.imf.org/en/News/Articles/2021/07/20/pr21221-ghana-imf-executive-board-concludes-2021-article-iv-consultation; World Bank (Nov 2021). COVID 19: Debt Service Suspension Initiative. Available: https://www.worldbank.org/en/topic/debt/brief/covid-19-debt-service-suspension-initiative

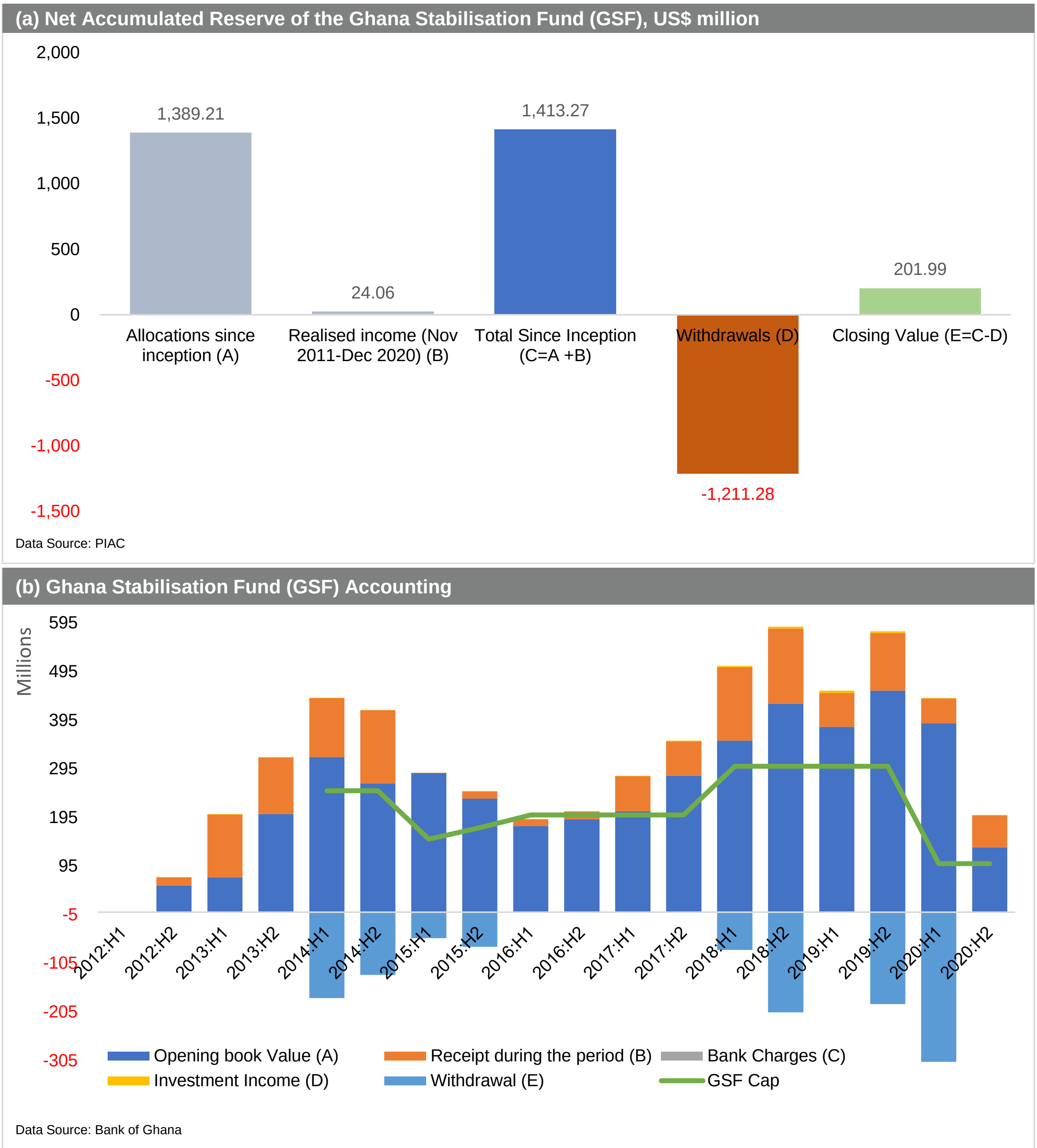


Figure 53: Accumulated Reserve of the Ghana Stabilisation (GSF), US$ million

Table 24: GSF number of securities held, and amounts invested per annum

Total number of securities held					
Year	**US Treasury Bills**	**Agency Bonds**	**Sovereign Bonds**	**Supranational Bonds**	**Others**
2012	-	-	-	-	1
2013	1	2	0	3	-
2014	2	4	2	4	-
2015	3	4	1	1	-
2016	4	5	2	0	-
2017	23	13	3	7	-
2018	19	12	3	5	-
2019	10	8	2	4	-
2020	7	2	1	0	-
Amount Invested (US$ million)					
Year	**US Treasury Bills**	**Agency Bonds**	**Sovereign Bonds**	**Supranational Bonds**	**Others**
2012	-	-	-	-	71.90
2013	14.71	34.28	-	37.44	-
2014	202.51	26.04	14.98	42.80	-
2015	140.43	25.95	6.97	1.99	-
2016	176.18	23.44	7.98	-	-
2017	294.07	31.25	6.93	19.92	-
2018	190.87	29.25	6.92	10.90	-
2019	349.34	21.03	4.00	9.01	-
2020	192.67	3.01	3.29	-	-

Source: Authors' construct, based on Bank of Ghana data

Table 25: Yearly GSF Withdrawals, US$ million

Year	**Contingency Fund**	**DSA for Debt Repayment**	**ABFA**	**Sinking Fund**	**Total Withdrawals**
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-17.43	-288.25	-	-	-305.68
2015	-23.76	-	-53.69	-47.51	-124.95
2016	-	-	-	-	-
2017	-	-	-	-	-
2018	-	-	-	-283.97	-283.97
2019	-	-	-	-189.13	-189.13
2020	-218.95	-	-	-88.59	-307.54
Total (US$ million)	**-260.14**	**-288.25**	**-53.69**	**-609.20**	**-1,211.28**
Total (%)	**21%**	**24%**	**4%**	**50%**	**100%**

Source: Authors' construct based on PIAC data

6.2.2 *Ghana Heritage Fund (GHF)*

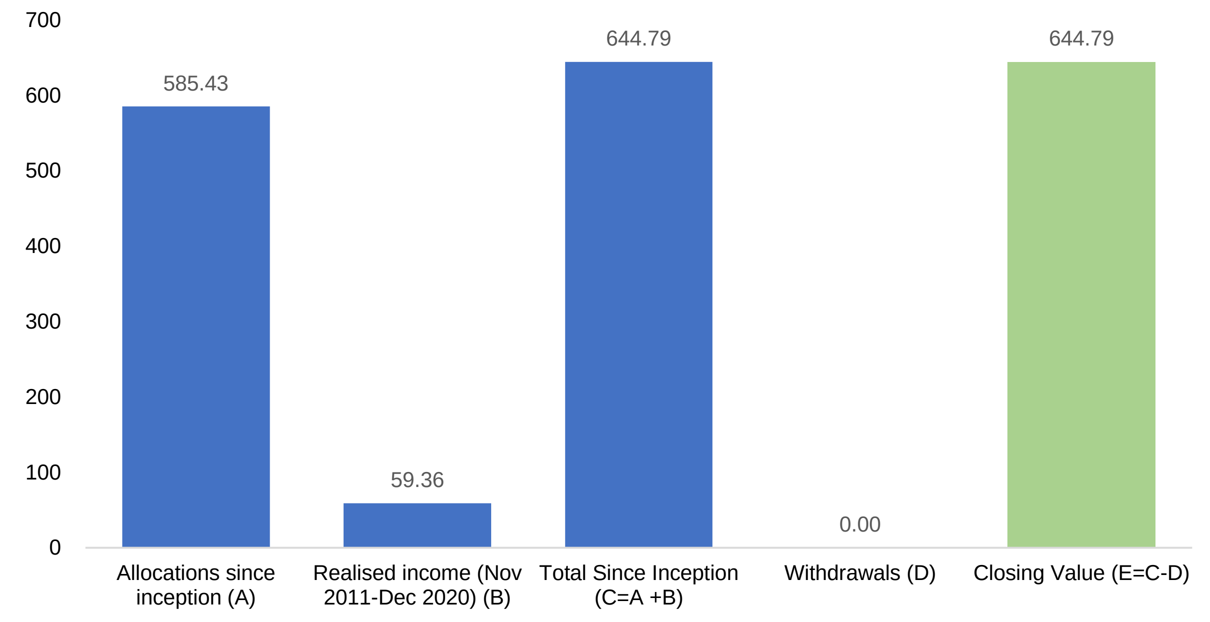
The GHF has accrued US$644.79 million since first oil production in late 2010 to the end of 2020 (Figure 54)**.** This comprises US$585.43 million of allocations and another US$24.06 million of realised income from investments made by the fund. As indicated earlier, the **funds in the GHF are invested in low-yielding safe investments outside of Ghana as a core ethos of the fund's portfolio diversification strategy** (Table 26).

The range of qualifying instruments is limited to investment-grade bonds and convertible currency deposits issued by sovereign states, Central Banks, and multilateral organisations such as the Bank for International Settlements — US Treasury Bills, Agency Bond Sovereign Bonds and Supranational Bonds. Also, there has been no withdrawal from the GHF to date, meaning that the reserves have been allowed to accumulate. This is despite the strong calls by some organisations and civic actors for Ghana to utilise the GHF to meet pressing economic needs (a detailed discussion of the underlying political economy imperatives is provided in the next section).

Nevertheless, **the returns from the GHF have been small and more volatile than GSF returns** (Figure 55). This **calls for a rethink of the investment strategy of the GHF** (and even the GSF), more so given that Ghana continues to grapple with significantly rising "inequality, poverty and high debt-to-GDP challenges"[205] despite the advent of crude oil production and the country being classified a lower middle-income country (LMIC). Also, GPF returns have been collectively lower than key benchmark indices such as the S&P 500 Index (Figure 56).

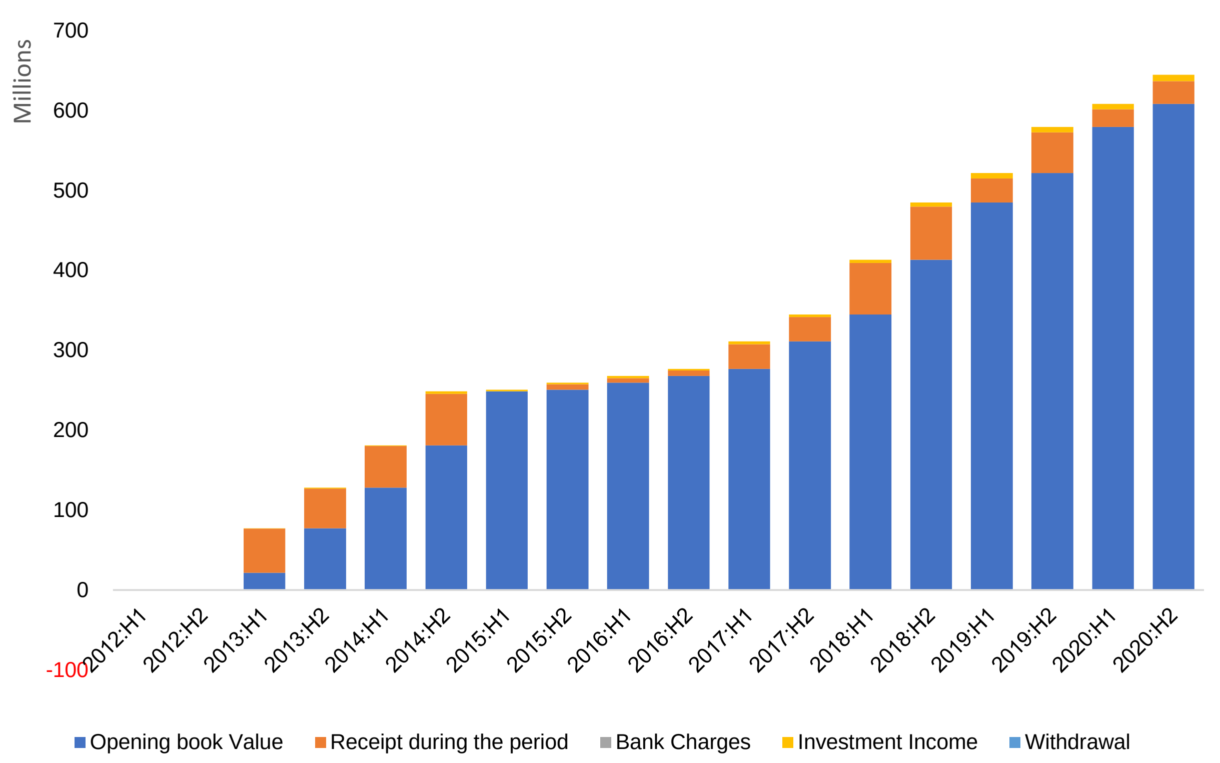
[205] Ackah, I. (2021). No African country is Norway! A perspective on sovereign wealth funds and the energy transition. *Energy Research & Social Science*, *75*, 102048.

(a) Net Accumulated Reserve of the Ghana Heritage Fund (GHF), US$ million



Data Source: PIAC

(b) Ghana Heritage Fund (GHF) Accounting



Data Source: Bank of Ghana

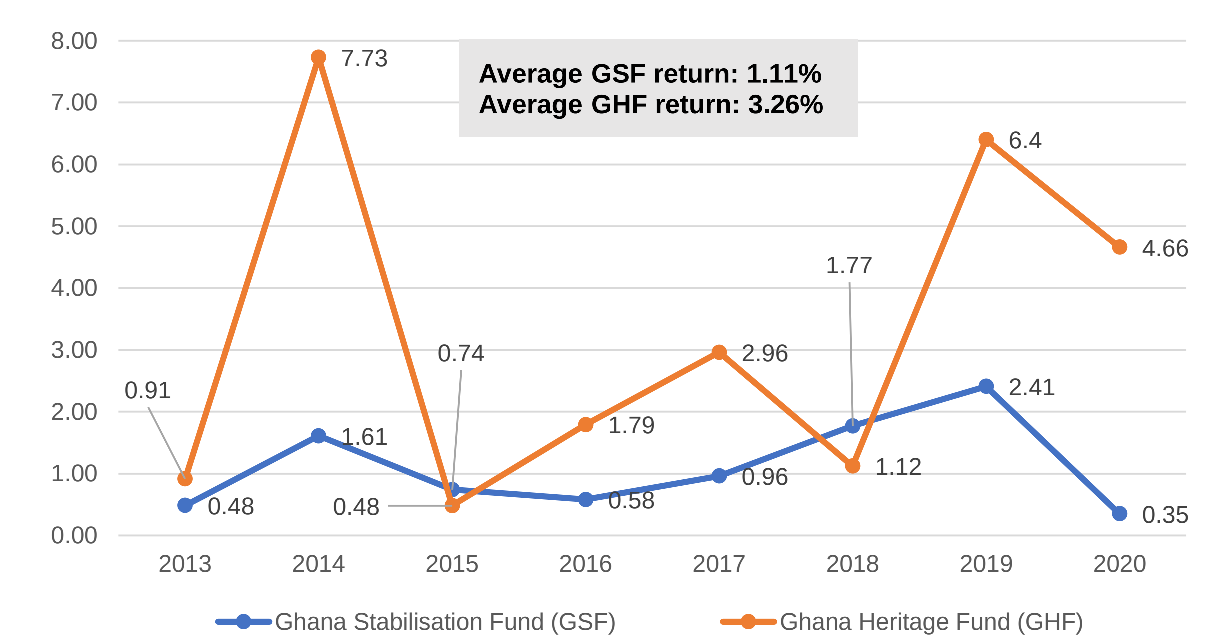
Figure 54: Accumulated Reserve of the Ghana Heritage Fund (GHF), US$ million

Table 26: GHF number of securities held, and amounts invested per annum

Total number of securities held					
Year	US Treasury Bills	Agency Bonds	Sovereign Bonds	Supranational Bonds	Others
2012	-	-	-	-	1
2013	2	1	0	2	-
2014	6	11	4	3	-
2015	17	15	5	7	-
2016	20	18	8	12	-
2017	27	23	10	14	-
2018	29	24	10	15	-
2019	29	23	9	14	-
2020	41	23	14	14	-
Amount Invested (US$ million)					
Year	US Treasury Bills	Agency Bonds	Sovereign Bonds	Supranational Bonds	Others
2012	-	-	-	-	21.69
2013	8.73	14.61	-	8.81	-
2014	160.48	58.17	18.17	16.35	-
2015	142.60	70.25	18.68	28.75	-
2016	144.78	72.80	22.03	37.14	-
2017	182.61	83.86	27.29	52.74	-
2018	286.39	98.33	25.83	61.35	-
2019	412.78	96.74	28.77	57.40	-
2020	406.72	116.00	90.13	59.83	-

Source: Authors' construct, based on Bank of Ghana and PIAC data

Returns on the Ghana Petroleum Funds (GPFs)



Source: Authors' construct, based on Bank of Ghana data

Figure 55: Returns on the GPFs

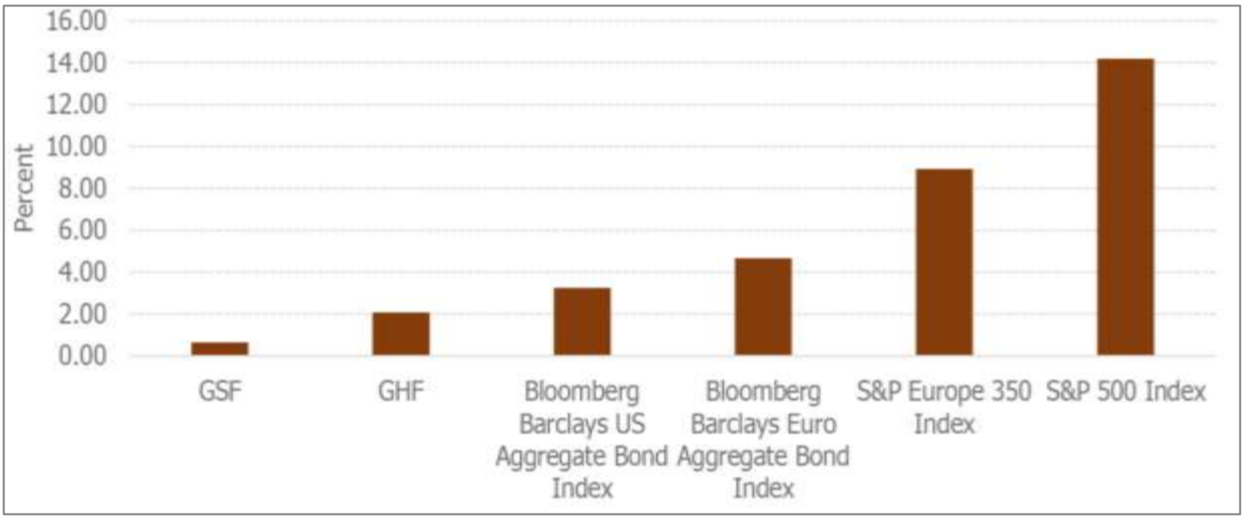


Figure 56: Mean Total Returns on the GPFs vs Returns on Key Benchmark Indices During 2011-2017

Source: IFS Ghana (2019)[206]

6.3 Some international benchmarks on the GPFs

Here, we present the assessment of the performance and compliance of the GPFs by some multilateral resource governance institutions (Tables 27-29 and Figure 57).

- **Extractive Industry Transparency Initiative (EITI)** – This is the global standard for the good governance of oil, gas and mineral resources. EITI promotes public disclosures of information and accountability along the extractives value chain. Such disclosures include revenue receipts, and allocation and management of petroleum funds by governments. Ghana is a signatory to EITI and has published various reports covering the mining and, most recently, the oil and gas sector.[207] Country progress on the EITI is ranked as "satisfactory", "meaningful progress", "inadequate progress", and "no progress". In December 2020, Ghana was ranked as having made **meaningful progress** in implementing the EITI Standard. The EITI requirement on revenue management and expenditures (under the revenue allocation bloc) are encouraged/recommended but not used to assess compliance.[208]
- **Santiago Compliance Index/Principles** – These are twenty-four (24) generally recognised principles, which are adopted by The International Forum of Sovereign Wealth Funds (IFSWF) to "promote transparency, good governance, accountability and prudent investment practices whilst encouraging a more open dialogue and deeper understanding of SWF activities".[209]

[206] IFS (2019). Assessing Management of the Ghana Petroleum Funds. Available: http://ifsghana.org/wp-content/uploads/2019/09/Special-Policy-Brief-7.pdf
[207] See https://eiti.org/ghana
[208] See https://eiti.org/ghana#assessment-card-progress-by-requirement
[209] See https://www.ifswf.org/santiago-principles-landing/santiago-principles

- **Resource Governance Index (RGI)** – The RGI, published by the Natural Resource Governance Institute (NRGI), provides a detailed assessment of the quality of natural resource governance in oil, gas and mineral-rich countries. The RGI is based on three main components – value realisation, revenue management and enabling environment. These are assessed on 14 sub-components and 51 indicators. In 2017, Ghana performed satisfactorily on managing its oil and gas resources with a composite score of 67 out of 100 points and emerged as the best-performing country in sub-Saharan Africa. In 2021, the country attained an overall score of 78 out of 100. Regarding the management of SWFs (under the revenue management block), the country attained a score of 93 out of 100 in 2017.[210] This increased to 100 out of 100 in the 2021 assessment, reflecting good management of the GPFs.
- **Truman's scoreboard** of sovereign wealth funds ranks SWFs based on publicly available information—from fund websites, annual reports, Ministries of Finance, and other public sources such as IMF reports.[211] The scoreboard has 33 equally weighted elements, translated into a per cent of zero to 100. Ghana's scores since 2012 on the Truman have essentially been unchanged for three scoreboards, at 45 to 47 (Table 29).

Table 27: SWFs Good Governance Fundamentals

Area	Extractive Industry Transparency Initiative (EITI)	Santiago Compliance Index/Principles	Resource Governance Index
1. Clear deposit rules	X	X	X
2. Clear withdrawal rules	X	X	X
3. Clear investment rules	X	X	X
4. Transparent/public disclosure of fund information in reports	X	X	X
5. Publicly available audits	X	X	X
6. Effective oversight	X	X	X

Source: Authors' construct based on NRGI (2013)[212]

[210] See https://resourcegovernanceindex.org/country-profiles/GHA/oil-gas?years=2021
[211] See Maire, J., Mazarei, A., & Truman, E. M. (2021). Sovereign wealth funds are growing more slowly, and governance issues remain (No. PB21-3).
[212] NRGI (2013). Ghana - Holding, Heritage and Stabilization Funds. Available: https://resourcegovernance.org/sites/default/files/NRF_Ghana_Jan2013.pdf

Table 28: Public disclosures on the GPFs

Theme	YES	NO
1. When or how often Fund reports are published and made publicly available	Yes	
2. Which individuals or organisations are responsible for publishing Fund reports	Yes	
3. Size of the Fund(s)	Yes	
4. Deposit and withdrawal amounts	Yes	
5. Detailed asset allocation – geographic location	Yes	
6. Detailed asset allocation – asset class	Yes	
7. Detailed asset allocation – specific assets	Yes	
8. Natural resource prices and other fiscal assumptions used to calculate deposit and withdrawal amounts allowed under fiscal rules	Yes	

Source: Authors' construct based on NRGI (2013)

Table 29: Scores of selected sovereign wealth funds on the 2019 SWF scoreboard and the Santiago Principles

Fund	2019 SWF scoreboard	Santiago Principles	
		25 elements	16 principles
Norway Government Pension Fund—Global (Norway)	100	100	100
State Oil Fund of the Republic of Azerbaijan (Azerbaijan)	92	94	97
Petroleum Fund of Timor-Leste (Timor-Leste)	91	88	88
Heritage and Stabilisation Fund (Trinidad & Tobago)	81	83	84
Mubadala Investment Company (UAE)	75	79	88
Pula Fund (Botswana)	62	68	71
Ghana Petroleum Funds (Ghana)	47	54	56
Public Investment Fund (Saudi Arabia)	39	48	56
Russian Direct Investment Fund (Russia)	37	37	37
Libyan Investment Authority (Libya)	23	26	38
Fund for Future Generations (Equatorial Guinea)	11	10	9

Source: Authors' construct based on Marie et al. (2021)[213]

[213] Maire, J., Mazarei, A., & Truman, E. M. (2021). Sovereign wealth funds are growing more slowly, and governance issues remain (No. PB21-3).

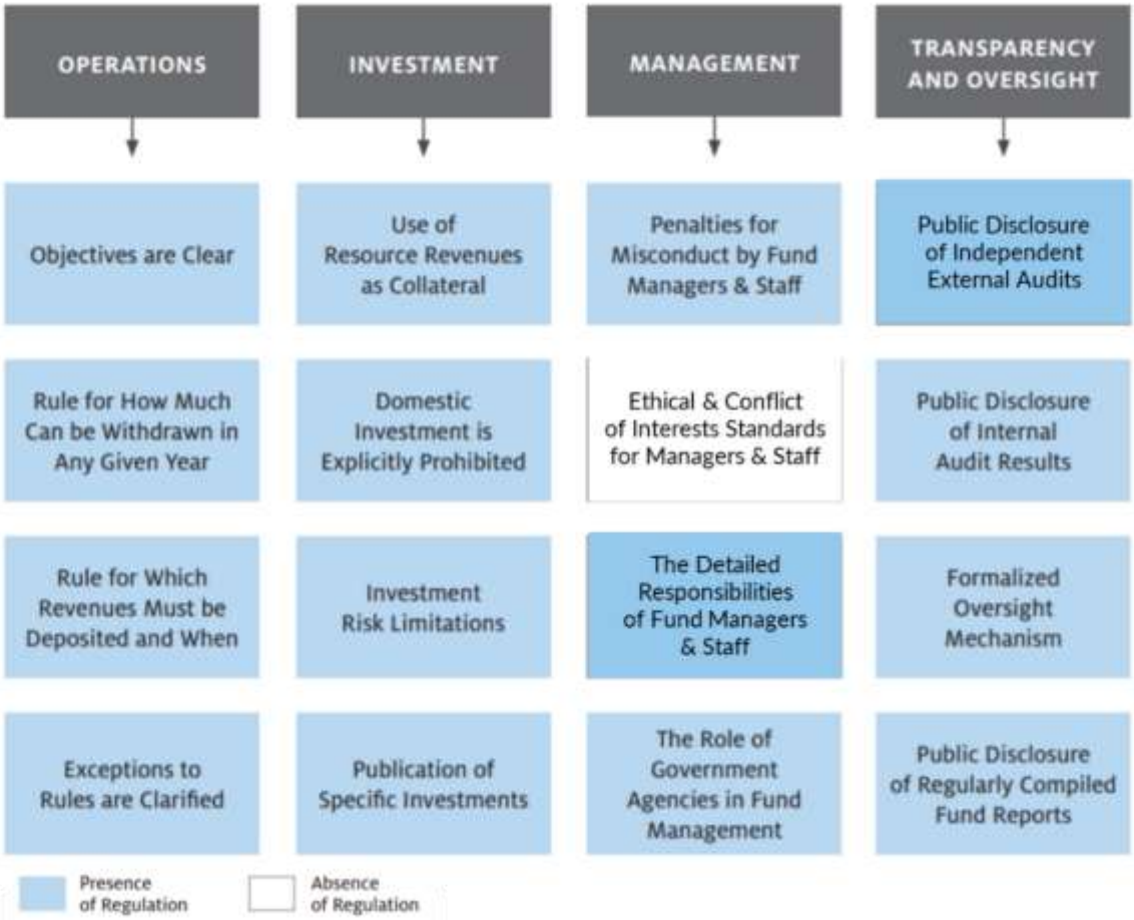


Figure 57: Good Governance Standards and Gaps in Regulation

Source: Authors' construct, based on NRGI (2013)

6.4 Political economy analysis of the management and use of the GPFs: Compliance with the savings and withdrawal mechanisms

The Minister of Finance is given discretion, subject to Parliamentary approval, to cap how much can be accrued to the GSF every year. This means that the cap can be reviewed downwards when oil prices fall or upwards in periods of high oil prices. The cap has been reviewed several times since the PRMA was passed, most notably in 2016 and 2017. In July 2016, the finance minister announced that he had reduced the GSF cap to US$100 million from an initial US$250 million during the 2016 mid-year budget review. The amount over the cap was subsequently transferred to the Contingency Fund (Sinking Fund) and debt repayment with Parliament's approval. Also, during the COVID-19 pandemic, the government lowered the cap on the GSF from US$300 million to USD100 million. It transferred the remainder of US$200 million (GHS1,250 billion) to the contingency fund to fund the Coronavirus Alleviation Programme (CAP). CAP was part of a series of extraordinary fiscal measures announced by the government in late March 2020 to mitigate the adverse effects of the COVID-19 pandemic outbreak in the country.

To curtail the arbitrariness in determining the CAP of the GSF, the Petroleum Revenue Management Regulations, 2019 (L.I. 2381) now provides more clarity on how the CAP is to be determined, as shown in Figure 58. Unlike previously, where there were no guidelines to shape this practice, L.I. 2381 now expressly mandates the finance minister to use **the three-year average allocation to the ABFA as the minimum threshold (benchmark) for capping the GSF**.

Petroleum Revenue Management Act, 2011 (Act 815 as ammended by Act 893)	The Petroleum Revenue Management Regulations, 2019 (L.I. 2381)
• Accumulated resources of the Ghana Stabilisation Fund **shall not exceed an amount recommended by the minister and approved by Parliament** and the amount shall be reviewed from time to time as necessitated by macroeconomic conditions **[Section 23(3)]**	• The Minister shall, in recommending the maximum amount of accumulated resources of the Ghana Stabilisation Fund, **ensure that the amount is not less than the average Annual Budget Funding Amount (ABFA) over a three year period [Section 8(1)]** • The three year period includes the **current financial year** (t), **year preceding** immediately before the current financial year (t-1), and **year immediately after** the current financial year (t+1) **[Section 8(2)]**

Figure 58: Determination of cap on the Ghana Stabilisation Fund

Source: Authors' construct

The GHF, just like the GSF, has also been the subject of controversy over the years, with various organisations, academics, and political figures leading calls[214] for the monies saved in the GHF to be used to meet current consumption as the returns from the fund are very low[215]. For example, PIAC's 2013 Annual Report noted that *"The investment of the GPFs has not as yet yielded high returns, which is of a great concern to the PIAC since a continuation of this trend is likely to in 2014, slow the growth of the Funds, especially the GHF*". Also, in 2014, Johnson Asiedu-Nketiah, the General Secretary of the then incumbent National Democratic Congress (NDC) party, stoked a national debate when he remarked that the government should consider using the heritage fund to solve Ghana's economic problems. This was when Ghana was going through a severe energy (also known locally as 'dumsor', meaning on-off) and accompanying economic crisis.

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[214] GhanaWeb(2014). *Let us put Heritage Fund on national agenda – Veep* Available at: https://www.ghanaweb.com/GhanaHomePage/business/Let-us-put-Heritage-Fund-on-national-agenda-Veep-310185

[215] Stephens, T. K. (2019). Framework for petroleum revenue management in Ghana: current problems and challenges. *Journal of Energy & Natural Resources Law*, *37*(1), 119-143., at p.138

Johnson Asiedu-Nketiah and others reportedly argued that "*it does not make sense for the country to borrow at high interest rates, while the Heritage Fund earns very little interest"*[216]. This view was also supported by Professor Augustine Fosu, who argued that *"it makes little economic sense if Ghana is paying nearly 10% annually on its existing debts while the GPFs are likely earning no more than 1%. This interest-rate difference is particularly worrisome at a time when the country has been running substantial fiscal deficits"*.[217]

However, PIAC and other interest groups[218] swiftly kicked against the proposal, arguing that "*the rationale for the Ghana Heritage Fund is to ensure that we do not consume all our eggs today; lest there is no chicken for us tomorrow"*[219].

Likewise, in February 2017, the government's Senior Minister, Yaw Osafo Maafo, disclosed[220] the government's intention of amending the PRMA to allow a withdrawal from the GHF to fund aspects of its flagship free senior high school policy, which he estimated would cost the government more than GHS3 billion (US$700 million) per annum to run.[221] Yaw Osafo Maafo remarked, among others, that "*We have to make an amendment to say that X percent of the heritage fund, or the petroleum fund will be used to support second cycle education. If we think that industry requires a certain stimulus that will enable jobs to be created and you are creating a job to build Ghana… particularly when you talk about the youth; the youth is the future, heritage is the youth, we would make certain relevant amendments to make sure that the economy benefits from the Petroleum Act*"[222]

However, this plan was eventually shelved following strong opposition from Ghana's civil society and other activists.[223] For example, The Civil Society Platform on Oil and Gas in Ghana (CSPOG) advised the government to consider other measures, such as further

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[216] MyJoyOnline.com (2014). PIAC kicks against use of Heritage Fund to solve current economic problems. Available at: https://www.myjoyonline.com/piac-kicks-against-use-of-heritage-fund-to-solve-current-economic-problems; Kunateh, M,.A (2014). Ghana: PIAC Battles for Heritage Fund. Available at: https://allafrica.com/stories/201405091837.html

[217] Fosu, A. K. (2017). Oil and Ghana's economy. *The Economy of Ghana Sixty Years After Independence*, *137*., at p.149

[218] Katinka, N. (2017). Don't Touch the Heritage Fund! Available at: https://www.nsempii.com/dont-touch-the-heritage-fund-dr-acheampong; Darko, S. (2017) On Free SHS and Heritage Fund; who are the future generation? [Article] (2017). Available at: https://citifmonline.com/2017/02/on-free-shs-and-heritage-fund-who-are-the-future-generation-article

[219] MyJoyOnline.com (2014). *PIAC kicks against use of Heritage Fund to solve current economic problems* Available at: https://www.myjoyonline.com/piac-kicks-against-use-of-heritage-fund-to-solve-current-economic-problems; AllAfrica.com (2014). Ghana: PIAC Battles for Heritage Fund. https://allafrica.com/stories/201405091837.html

[220] Public Interest Accountability Committee (2021). Heritage Fund to be used in financing free SHS - Osafo Maafo. Available at: https://www.piacghana.org/portal/12/13/58/heritage-fund-to-be-used-in-financing-free-shs-osafo-maafo

[221] Abbey, R..A.(2017). To Spend Or Not To Spend, Ghana's Oil Savings Dilemma Available at: https://www.huffingtonpost.co.uk/richard-annerquaye-abbey/to-spend-or-not-to-spend-ghanas-oil-savings-dilemma_a_21720126

[222] Graphic Online (2017). Heritage Fund to finance free SHS policy – Osafo Maafo. Available at: https://www.graphic.com.gh/news/general-news/heritage-fund-to-finance-free-shs-policy-osafo-maafo.html

[223] GhanaWeb(2020). *GH¢1.65bn Ghana Stabilisation Fund enough to finance coronavirus pandemic – Gatsi*. Available at: https://www.ghanaweb.com/GhanaHomePage/business/GHS1-65bn-Ghana-Stabilisation-Fund-enough-to-finance-coronavirus-pandemic-Gatsi-910612

expenditure cuts instead of relying on the Heritage Fund to act as Ghana's first line of defence in an emergency such as the pandemic.[224]

6.5 Conclusion

Ghana's PRMA provides the framework for the collection, allocation and management of petroleum revenue in a responsible, accountable and transparent manner for the benefit of the citizens of Ghana. Under the PRMA, The Ghana Petroleum Funds (GPF), comprising the Ghana Stabilisation Fund (GSF) and The Ghana Heritage Fund (GSF), have been established for investments and savings as well as supporting intra-generational equity.

The GSF is allocated not more than 70% of GPF allocations –a maximum of 21% of total petroleum revenues, while the GHF is allocated the remaining 9%. The GSF allows the government to take from it in times of economic shocks, such as the 2015-2017 commodities price slump and the 2020 Coronavirus (COVID-19) pandemic. The finance minister has the power to place an annual cap on the GSF, subject to parliamentary approval. Once this cap is attained, the accumulated cap can be transferred into the Contingency Fund or used for debt repayment.

Overall, 74% of the withdrawals from the GSF have been used for debt repayment, 21% have been allocated to the Contingency Fund to deal with national emergencies such as the COVID-19 pandemic and another 4% to shore up ABFA shortfalls. These debt repayments are symptomatic of developments within the Ghanaian economy over the past decade. Due to low domestic revenue mobilisation, increased interest payments have occasioned excessive borrowing (both domestically and externally) to meet budgetary shortfalls. The country's servicing needs have become expensive due to the high coupon rates and volatility of the cedi, the local currency.

The GHF supports inter-generation providing an endowment or seed fund to support the development of future generations. Monies in the GHF are invested outside Ghana in low-yielding safe investments, commensurate with the risk appetite or profile specified within the PRMA. Nevertheless, returns from the GHF have been small and more volatile than GSF returns. There is a need for a rethink of the investment strategy of the GHF (and even the GSF), more so given that Ghana continues to grapple with inequality, poverty and high indebtedness. Ghana continues to be classified at high risk of debt distress – for both external and overall public debt — even with oil and gas production.

[224] Ghanaweb(2020). *Coronavirus: Don't touch Heritage Fund – CSPOG to gov't*. Available at: https://www.ghanaweb.com/GhanaHomePage/business/Coronavirus-Don-t-touch-Heritage-Fund-CSPOG-to-gov-t-910621

7 Institutional Assessment of Petroleum Revenue Management

This section covers

- Responsibility of actors on petroleum revenue management
- Institutional assessment benchmarking: methodology and criteria for scoring
- Performance of the relevant institutions on petroleum revenue management

With the multiple stakeholders involved in the management and use of petroleum revenues, performing a detailed stakeholder mapping and analysis is crucial to understand stakeholder interests and needs and how that has evolved. This has been done through desk reviews and key stakeholder interviews with thought leaders engaged in the national policy debate on revenue management. We identify possible misalignment in stakeholder interests and motivations while highlighting social and institutional aspects of petroleum revenue management that needs to be addressed.

7.1 Role and responsibility of institutions under the PRMA (Act 815, as amended)

The state institutions involved in petroleum revenue management activities as per the PRMA (as amended) and influence dynamics are shown in Figures 59-60 and discussed. Table 30 shows the statutory information reporting matrix, reporting requirements, expectations, and deliverables from these institutions.

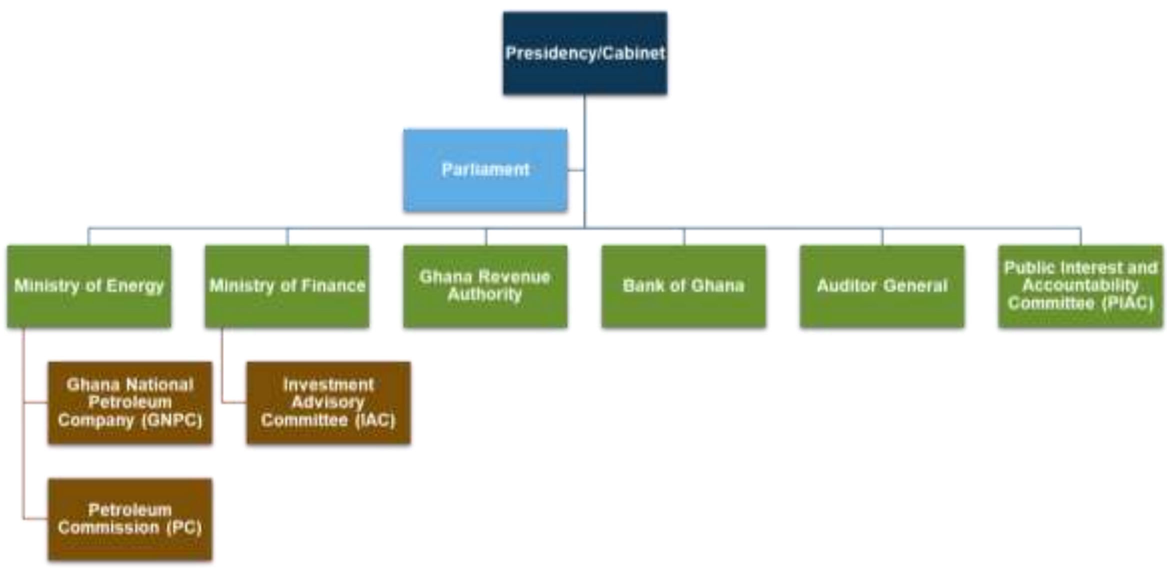

Figure 59: State institutions involved upstream petroleum revenue management

Source: Authors' construct

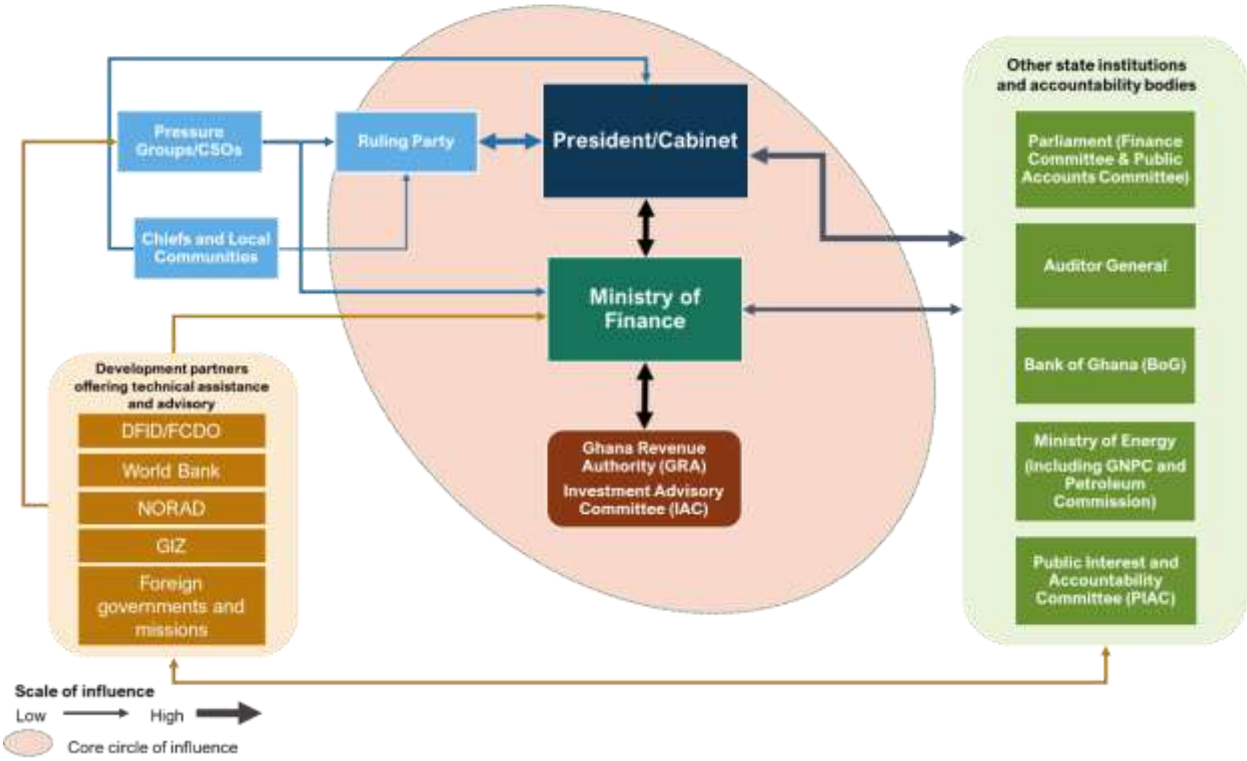

Figure 60: Influence dynamics around petroleum revenue management

Source: Authors' construct

- **Presidency/Cabinet:** Ghana runs an Executive Presidency under the country's 1992 Constitution Executive power is vested in the president, who is head of both state and government and Commander-in-Chief of the armed forces. The president runs the nation with the support of a Cabinet, which consists of the president, vice-president, and ministers appointed by the president with prior parliamentary approval. In the context of petroleum revenue management, the Presidency (and Cabinet) utilise petroleum revenues to meet various political promises and objectives, which are sometimes defined in their campaign manifestos or later identified during an administration. Pressure is often exerted on the Presidency by various external and internal interest groups such as the ruling party, chiefs and local communities, civic organisations, and development partners and donors.

- **Parliament:** Parliament is mandated to approve Benchmark Revenues, approve the Annual Budget Funding Amount (ABFA) and transfers to the Ghana Petroleum Funds (including approving ceiling on the Ghana Stabilisation Fund). The House also approves the programme of activities of GNPC (the national oil company) and subsequent transfers to it.

- **Ministry of Energy:** This ministry is responsible for developing and implementing energy sector policy in Ghana and supervising the operations of many government institutions, including GNPC (the national oil company) and the Petroleum Commission (the upstream regulator).

- **Ministry of Finance:** According to the PRMA, the Minister for Finance is responsible for developing an investment policy for the investment of the Ghana Petroleum Funds. The Minister is also responsible for the overall management of the Funds and oversees transfers into and disbursements from the Funds. Additionally, the Minister has an obligation to make decisions in relation to investment strategy or management of the Funds after seeking the advice of the Investment Advisory Committee and the Governor of the Bank of Ghana. The Minister is also mandated to enter into an Operations Management Agreement with the Bank of Ghana for the operational management of the Funds. The Minister, in consultation with the Governor, nominates members of the Investment Advisory Committee. The Minister has the power by legislative instrument to make Regulations under the Act.

- **Ghana Revenue Authority (GRA):** The Ghana Revenue Authority assesses, collects and accounts for all petroleum revenues due to the State. It is established by law under the *Ghana Revenue Authority Act*, 2009 (Act 791).

- **Investment Advisory Committee (IAC):** The PRMA mandates for establishing an Investment Advisory Committee to advise the Minister on the general performance monitoring of the management of the Ghana Petroleum Fund. Its function, amongst others, is to formulate and propose to the Minister the investment policy and management of the Funds. It also provides advice on broad investment guidelines and overall management strategies. The Investment Advisory Committee is responsible for reporting to the Minister of Finance on a quarterly and yearly basis the performance and activities of the Ghana Stabilisation Fund and the Ghana Heritage Fund for the purpose of reporting in the annual budget and financial statements.

- **Bank of Ghana (BoG):** The BoG has a mandate under the PRMA for the day-to-day operational management of the Petroleum Holding Fund, the Ghana Petroleum Funds, and subsequently the Ghana Petroleum Wealth Fund. This is executed under the terms of the Operations Management Agreement (OMA) signed with the Minister of Finance. The central bank is mandated to manage the funds prudently within the framework of the operational and management strategy provided by the Finance Minister considering the investment guidelines used by the Bank for investments of a similar nature, internationally recognised principles of good governance, and the need to support the national currency against destabilising factors.

- **The Auditor-General:** The Auditor-General is responsible for the external audits of the petroleum funds and is mandated to audit them each year. The Auditor-General may delegate this duty to an external auditor. However, this delegation shall be for a period not exceeding three years and is non-renewable. The Auditor-General also submits an annual audit report to Parliament.

- **Public Interest and Accountability Committee (PIAC):** PIAC is established under the PRMA to monitor and evaluate compliance by government and other relevant institutions in the management and use of petroleum revenues and investments. It also has the mandate to provide space and a platform for the public to debate the extent to which spending prospects, and the management and use of revenues conform to development priorities.

Table 30: Statutory information reporting matrix

Reporting requirements, expectations and deliverables	Presidency	Parliament	Ministry of Finance	Ghana Revenue Authority (GRA)	Investment Advisory Committee (IAC)	Petroleum Commission	Ministry of Energy	Audit Service/Auditor-General Department	Ghana National Petroleum Corporation (GNPC)	Bank of Ghana	PIAC
1. Upstream developments – e.g., regulatory changes, projects and production updates, decommissioning, among others.	X	X	X	X	X	X	X	X	X	X	X
2. Volume lifted in barrels from all the current producing fields (including Ghana Group Lift)	X	X	X	X		X	X	X	X	X	X
3. Pricing information - reference price per barrel, price option fee, market price per barrel, and cargo value.	X	X	X	X		X	X	X	X	X	X
4. Revenue allocations/split into the various fiscal streams such as royalties and net CAPI, surface rentals, and corporate income tax, among others	X	X	X	X		X	X	X	X	X	X
5. ABFA for the immediately preceding two	X	X	X					X			X

years, balance of actual receipts, and recommendations for the reconciliations and adjustments											
6. ABFA utilisation by the priority areas and transfers to GIIF	X	X	X					X			X
7. Actual inflows and outflows of the PHF	X	X	X	X			X	X	X	X	X
8. GNPC allocations a. Total GNPC Funding (Level A: equity financing (share of development & production costs) and Level B funding (net proceeds) b. Cash balance brought forward c. Uses of GNPC amounts allocated	X	X	X			X	X	X	X	X	X
9. Ghana Petroleum Funds	X	X	X		X					X	X

a. Receipt during the period b. Withdrawals – including to the Contingency Fund, Debt Service Account (DSA), ABFA, and the Sinking Fund c. Net realised/investment income d. Closing book value e. Outlook for the year											
10. Audited financial statements of the petroleum funds	X	X	X		X			X		X	X
11. Ad-hoc requests	X	X	X	X	X	X	X	X	X	X	X

Source: Authors' construct

7.2 Institutional assessment benchmarking: methodology and criteria

A traffic light system of performance of the various institutions is produced based on identified key themes and sub-indicators. The identification follows an extensive literature review and is complemented by a survey of industry experts (key stakeholders). This is also based on the legal and institutional context of petroleum revenue management as per Act 815 (as amended). The methodological sub-themes and areas are shown in Figure 61. These were then submitted to stakeholders for review and validation. The following scheme outlined in Table 31 is used. Following this, political economy analysis is used to triangulate the findings from the key stakeholders in terms of the key risks and challenges (including governance) facing the PRMA's implementation. The root causes are depicted with Fishbone diagrams.

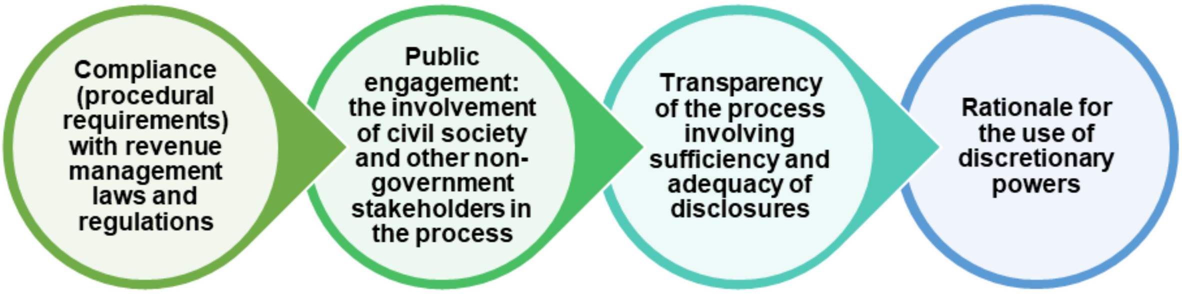

Figure 61: Assessment areas within the petroleum revenue management value chain

Source: Author's construct

Table 31: Assessment card scheme and interpretation

Colour scheme	Interpretation
	No progress. All or nearly all aspects of the PRMA requirement remain outstanding, and the broader objective of the requirement is not fulfilled — That is, the institution (1) does not comply (procedural requirements) with the revenue management law and regulations; (2) does not engage civil society and other non-government stakeholders in the process; (3) there are no sufficient and adequate disclosures; and (4) the use of discretionary power is highly prevalent and not explained at all.
	Inadequate progress. Significant aspects of the PRMA requirement have not been implemented, and the broader objective of the PRMA requirement is far from fulfilled — That is, the institution (1) somewhat complies (procedural requirements) with the revenue management law and regulations; (2) does not engage civil society and other non-government stakeholders in the process; (3) there are no adequate and sufficient disclosures; and (4) use of discretionary power is prevalent but somewhat explained.
	Meaningful progress. Significant aspects of the PRMA requirement have been implemented, and the broader objective of the PRMA requirement is being fulfilled — That is, the institution (1) somewhat complies (procedural requirements) with the revenue management law and regulations; (2) makes a good attempt to engage civil society and other non-government

	stakeholders in the process; (3) provides very sufficient and adequate disclosures; and (4) attempts to explain the use of discretionary power even if it is not well articulated.
	Satisfactory progress. All aspects of the PRMA requirement have been implemented, and the broader objective of the PRMA requirement has been fulfilled — That is, the institution (1) mostly complies (procedural requirements) with the revenue management law and regulations; (2) makes a good attempt to engage civil society and other non-government stakeholders in the process; (3) provides sufficient and adequate disclosures; and (4) attempts to explain the use of discretionary power which most times are articulated.
	Outstanding progress (Beyond). The institution has gone beyond the requirements of the PRMA — That is, the institution (1) fully complies (procedural requirements) with the revenue management law and regulations; (2) fully engages civil society and other non-government stakeholders in the process; (3) its disclosures are sufficient and adequate; and (4) any use of discretionary power is well explained.

Source: Author's construct based on EITI methodology

7.3 Performance of the relevant institutions on petroleum revenue management

Here, we assess the roles assigned to the various petroleum revenue management institutions and their compliance with the provisions thus far. These are highlighted in the tables and accompanying commentary below. Table 32 shows the overall progress of the respective institutions responsible for petroleum revenue management.

We assess that the Bank of Ghana, Auditor-General, Public Interest and Accountability Committee and Petroleum Commission have demonstrated **satisfactory progress** in implementing the relevant provisions of the PRMA. On the other hand, we assess that the Ministry of Finance, Parliament, The Ghana Revenue Authority, and Ghana National Petroleum Corporation have demonstrated **meaningful progress** in implementing the relevant provisions of the PRMA. The Investment Advisory Committee has demonstrated inadequate progress.

Table 32: Overall assessment progress

Institution	Level of Progress					Direction of Progress
	No Progress	Inadequate	Meaningful	Satisfactory	Beyond	
Ministry of Finance			■			→
Bank of Ghana				■		→
Parliament of Ghana			■			→
Ghana Revenue Authority			■			→
Investment Advisory Committee		■				→
Auditor-General				■		→
Ghana National Petroleum Corporation			■			→
Public Interest and Accountability Committee				■		→
Petroleum Commission				■		→

Source: Authors' construct

7.3.1 *Ministry of Finance*

As highlighted earlier, The Ministry of Finance is the principal implementing agency on petroleum revenue management and performs various defined roles as per Act 815 (as amended by Act 893). These include, but are not limited to:

- the choice of priority areas for spending of petroleum revenues,
- reporting on petroleum production, revenues and expenditure
- developing investment policies and the regulations for the effective implementation of Act 815.

Overall, we assess that the Ministry of Finance has demonstrated meaningful progress and largely complied (adhered) to its obligations under the PRMA (Table 33). Nevertheless, we identified some institutional gaps in the processes and flows that can help improve and ensure effective management of Ghana's petroleum revenues (see recommendations Section 8). Therefore, while the recently passed *Petroleum Revenue Management Regulations,* 2019 (L.I. 2381*)* is welcome, it remains to be seen the extent to which the regulations can help address some of the issues identified.

Table 33: Summary of the role of the Ministry of Finance as per Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)

Issue	Applicable Provisions of Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)	Commentary *- Compliance (procedural requirements) with revenue management laws and regulations* *- Public engagement: the involvement of civil society and other non-government stakeholders in the process* *-Transparency of the process involving sufficiency and adequacy of disclosures* *- Rationale for the use of discretionary power*
Payment into the PHF Revenue due from the direct or indirect participation of the Republic in petroleum operations, inducing the carried and additional participating interests shall be paid into the Petroleum Holding Fund.	Section 7	This provision has largely been complied with, especially with the passage of the *Petroleum Revenue Management Amendment Act*, 2015 (Act 893), which clarified the rules. Prior to the amendment, Section 7(2)(b) of Act 815 allowed deductions for GNPC's net share of the cash or the equivalent barrels ceded to it and the remainder transferred to the PHF. This was because of a defect/loophole in the PRMA which stated not only that revenue due to Ghana from the direct or indirect participation of the Republic in petroleum operations shall be paid into the PHF, but at the same time allowed deductions for equity financing cost, including advances and interest of the carried and participating interests paid to GNPC. Also, other issues such as inadvertent payment of petroleum revenues into the GRA's bank account instead of the PHF's account have been corrected. For example, in December 2019, Anadarko was reported[225] to have paid US$25 million in respect of corporate income tax into the GRA's accounts instead of the PHF. This was reversed in November 2020.
Transparency and accountability of petroleum receipts • The records of petroleum receipts in whatever form, to be simultaneously published by the Minister in the	Section 8(1) Section 8(2) Section 8(3)	The ministry has complied with the provisions of the PRMA. The Minister of Finance has regularly published the records of petroleum receipts in the Gazette and in at least two state-owned daily Newspapers. The ministry also publishes quarterly "Petroleum Receipts and Distribution Reports" on its website, available at: https://mofep.gov.gh/publications/petroleum-reports

[225] See 2020 Auditor General's Report on the Management of the Petroleum Funds, at p.17 (para 73)

Gazette and in at least two state-owned daily Newspapers, within thirty calendar days after the end of the applicable quarter. • The information required to be made public shall also be published online on the website of the Ministry and presented to Parliament on the date of the Gazette publication • The Minister shall publish the total petroleum output lifted and the reference price in the same manner as provided in subsections (1) and (2).		The information presented[226] in the quarterly reports includes the volume lifted in barrels from all the currently producing fields, Ghana Group Lift, reference price per barrel, price option fee, market price per barrel, and cargo value. Other information presented in the report includes the revenue allocations/split into the various fiscal streams such as royalties and net CAPI, surface rentals, and corporate income tax, among others.
Reconciliations of PHF • The Minister shall reconcile the actual total petroleum receipts and the Annual Budget Funding Amount of the immediately preceding year and shall submit a written report to Parliament. • The report shall be published in the Gazette and at least two state owned daily newspapers not later than April 30th of the year in which the reconciliation is carried out.	Section 15	There has been adherence to this provision. Reconciliation reports on the PHF have been published since 2013 and are available on the Ministry's website at: https://mofep.gov.gh/publications/petroleum-reports. These reports have also been submitted to Parliament as the law demands. The reports were published and submitted to Parliament in March of the year in which the reconciliation was carried out, which is consistent with timelines specified under the law. The information provided in the reconciliation reports includes developments in the upstream petroleum sector during the year in question, petroleum receipts and utilisation for the year, ABFA utilisation, GNPC utilisation, and the performance of the Ghana Petroleum Funds. Others include the audited financial statements of the petroleum funds. The information provided is also consistent with Section 15(2) of the PRMA (as amended)

[226] See for example the 2021 Q2 Petroleum Receipts report. Available at: https://mofep.gov.gh/sites/default/files/reports/petroleum/2021-Q2-Petroleum-Receipts.pdf

<table>
<tr>
<td>Disbursement from the PHF

Order of priority of disbursements:
GNPC
Consolidated Fund in support of the national budget via the ABFA
Ghana Petroleum Funds
Exceptional purposes</td>
<td></td>
<td>The order of priority for allocation from the PHF has been complied with. Available data from over the years and subsequent analysis (see Section 3) show that the disbursement schedule has been followed.

Exceptional purposes under Section 24 of the PRMA include refunding tax overpayment, paying management fees, paying royalties for onshore operations, and paying to communities adversely affected by petroleum operations. The only payments that have been made in this regard are the fees paid to the Bank of Ghana for managing the petroleum funds.</td>
</tr>
<tr>
<td>The Annual Budget Funding Amount
ABFA – Not more than 70% of Benchmark Revenues
Exact percentage of Benchmark Revenue allocated annually to ABFA 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.
Spending allocation determined shall be reviewed every three years
Prioritisation of not more than four priority sectors
Priority areas shall be reviewed every three years
Capital Investment - Not less than 70% of ABFA</td>
<td>Section 18(1)
Section 18(2)
Section 18(4)
Section 18(5)
Section 21(5)
Section 21(6)
Section 21(4)</td>
<td>The provision of allocating not more than 70% of benchmark revenues to ABFA has largely been complied with. Also, Parliament has regularly reviewed the spending allocations every three years. Furthermore, four priority areas have been selected and implemented every three years.

The requirement for the allocation of Benchmark Revenue to ABFA has been guided by a medium-term development strategy and ABFA by a medium-term expenditure framework. Ghana's medium-term development strategies implemented over the period include:
Growth and Poverty Reduction Strategy (GPRS II), 2006-2009
Ghana Shared Growth and Development Agenda (GSGDA), 2010-2013
Ghana Shared Growth and Development Agenda (GSGDA) II, 2014-2017
Coordinated Programme of Economic and Social Development Policies, 2017–2024—An Agenda for Jobs: Creating Prosperity and Equal Opportunity for All
Medium-Term National Development Policy Framework (2018–2021)
Coordinated Programme of Economic and Social Development (2018–2022)
However, as other sections of this report highlight, there are lingering questions about their impact and the attainment of outcomes tied to broader national development objectives. Ghana's underlying political economy and political settlements is such</td>
</tr>
</table>

		that many governments have not found the need to develop and/or implement a long-term national development plan. Recognising this institutional defect, Section 21(3) of the PRMA rightly outlined twelve (12) spending areas for utilising the ABFA. The law, however, fell short of being prescriptive on the exact specifics or definition of these 12 areas, leaving room for conflation and potential abuse by the political leadership of the day (as documented in Section 5). Thus, the requirement under 21(2) of the PRMA (as amended) for the ABFA to be used to (1) maximise the rate of economic development, (2) promote equality of economic opportunity to ensure the well-being of citizens, and (3) undertake even and balanced development of the regions is yet to be fully attained (see Section 5).
Obligations of the Minister of Finance • Develop an investment policy on the investment of the Ghana Petroleum Funds • Responsible for the overall management of the Ghana Petroleum Funds • Make decisions in relation to investment strategy or management of the Ghana Petroleum Funds after seeking the advice of the Investment Advisory Committee and the Governor • Enter into an Operations Management Agreement with the Bank of Ghana	Section 25(a) Section 25(b) Section 25(c) Section 25(d)	Despite challenges in operationalising the Ghana Petroleum Funds, such as the lack of a clearly defined investment policy, this was subsequently rectified in 2019 by the Ministry of Finance in the *Petroleum Revenue Management Regulations*, 2019 (L.I. 2381). Nevertheless, as we highlight in other sections of this report (see Section 6), the investment policy guiding the Ghana Petroleum Funds has been challenged by others — for example, criticising the low rate of returns on the funds and investing in foreign assets while there are domestic pressing needs, among others. The finance minister is signatory to an Operations Management Agreement (OMA) with the Bank of Ghana, the latter which does the day-to-day management and investment of the funds (Fund Manager) under a three-tier governance structure (see Section 6.1). The finance minister also consults the Investment Advisory Committee (IAC) and the Governor on how to invest the funds to meet its objectives as stated in the PRMA (as amended). The IAC, constituted since January 2012, is an expert body appointed by the finance minister to advise on the GPFs. The IAC was not constituted by the finance minister between 2017-2019, leading to

		organisations such as PIAC citing breaches of the PRMA.[227]
Investment rules • Range of instruments designated as **qualifying instruments shall be reviewed every three years** or sooner by the Minister on the advice of the Investment Advisory Committee	Section 27(2)	As highlighted earlier, the investment policy guiding the Ghana Petroleum Funds and the range of qualifying instruments have been challenged by others. For example, criticising the low rate of returns on the funds and investing in foreign assets while there are domestic pressing needs, among others. The *Petroleum Revenue Management Regulations,* 2019 (L.I. 2381) provides more clarity on the qualifying instruments. It states in Section 12 that “in furtherance of section 27 of the Act, **the Minister shall review a qualifying instrument** where the **continuation of the existing qualifying instrument may lead to a significant loss or gain or a change** in qualifying instruments will lead to significant gains.
PRMA Regulations The minister by legislative instrument makes Regulation for the effective performance of the Act.	Section 60	Regulations for the PRMA were drafted as far back as 2012[228] but was approved by Cabinet and passed in Parliament seven years later in 2019 as the *Petroleum Revenue Management Regulations, 2019 (L.I. 2381)*

7.3.2 *Bank of Ghana*

The BoG is the Fund Manager of the Petroleum Holding Fund, the Ghana Petroleum Funds, and subsequently the Ghana Petroleum Wealth Fund. This is executed under the terms of the Operations Management Agreement (OMA) signed with the Minister of Finance.

Overall, we assess that the Bank of Ghana has fulfilled most of its obligations under the PRMA Act and has demonstrated satisfactory progress, as Table 34 shows. There are a few instances[229] where the Bank could not, for example, transfer to GNPC the relevant portion of the petroleum revenues within the maximum three (3) working days after receipt of petroleum revenue into the PHF due to procedural/administrative challenges. However, the Bank took corrective steps such as implementing an Information Management System (IMS) to address this bottleneck.

[227] https://www.piacghana.org/portal/12/13/309/gov%E2%80%99t-breaching-prma-by-refusing-to-reconstitute-iac
[228] See 2012 PIAC Annual Report, at p.33
[229] See 2018 Auditor General’s report on , at p.11 (paras 47-52).

Table 34: Summary of the role of the Bank of Ghana as per Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)

Issue	Applicable Provisions of Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)	Justification/Rationale *- Compliance (procedural requirements) with revenue management laws and regulations* *- Public engagement: the involvement of civil society and other non-government stakeholders in the process* *-Transparency of the process involving sufficiency and adequacy of disclosures* *- Rationale for the use of discretionary power*
• Establishment of Petroleum Holding Fund	Section 2(1)	The PHF has been established at the Bank of Ghana and is fully operational.
• Responsible for the day-to-day operational management of the Petroleum Holding Fund, the Ghana Petroleum Funds and subsequently the Ghana Petroleum Wealth Fund under the terms of the Operations Management Agreement	Section 26(1) Section 26(2)	The Bank of Ghana has prudently managed the country's petroleum funds in line with the operational and management strategy framework provided by the finance minister and the IAC. The central bank has undertaken this in line with established and internationally recognised principles of good governance of SWFs such as the Extractive Industry Transparency Initiative (EITI), Santiago Compliance Index/Principles, and the Resource Governance Index (RGI). The Bank of Ghana publishes an annual report and financial statements on the petroleum funds under its management. These can be accessed at https://www.bog.gov.gh/ghana-petroleum-funds/gpf-financial-statements/
• Quarterly Bank of Ghana Reports on the Ghana Petroleum Funds to the Minister and the Investment Advisory Committee	Section 28(1)	These reports have been regularly submitted to the Minister and the IAC. However, they are not publicly available as this is not a legal requirement.
• Semi-annual Bank of Ghana reports to Parliament and publication in 2 National Dailies not later than 15th Feb and 15 August each year, and on the website of the Bank	Section 28(2)	These reports have been regularly published in the various mediums provided under the law. For example, the semi-annual reports can be accessed at https://www.bog.gov.gh/ghana-petroleum-funds/gpf-semi-annual-reports/

• Internal Audit Department of the Bank of Ghana shall audit the books accounts, records, other documents, systems and procedures relating to the Petroleum Funds	Section 44(1)	We can confirm these audits are regularly conducted in line with the Banks internal management processes, including an enterprise risk register which is subject to semi-annual surveillance by an external ISO auditor. This is a requirement for the bank's ISO27001 certification.
• The Governor shall submit quarterly [audit] reports to the finance minister and any other person required by law to receive the report.	Section 44(2)	The reports and recommendations of these risk audits are shared on a need-to-know basis with the relevant authorities
• Bank of Ghana shall submit to the Auditor-General the financial statements and relevant documents on the Petroleum Funds for annual audit not later than three months after the end of its financial year	Section 46(1)	The Bank of Ghana submitted all required documentation to the Auditor General. The Auditor General's findings are shown in various annual performance audit reports, commencing from 2014 to date.

7.3.3 *Parliament*

Parliament has a responsibility to approve Benchmark Revenues, approve the Annual Budget Funding Amount (ABFA) and transfers to the Ghana Petroleum Funds (including approving ceiling on the Ghana Stabilisation Fund). The House also approves the programme of activities of GNPC and subsequent transfers to it.

Overall, we find that Parliament has demonstrated meaningful progress and executed its mandate under the law by giving the approvals required (Table 35). However, we find that the accountability function of the legislative body regarding the judicious use of petroleum revenues in line with the process established under the PRMA has not been fully exercised. For example, some of the recommendations by PIAC for legislative action by the Public Accounts Committee are still yet to be fully acted upon, several years down the line. This is well captured by Ackah et al. (2020)[230] , who note that:

> "Parliament's unwillingness to act on PIAC's recommendations mean there is a general improvement in transparency but limited accountability".

[230] Ackah, I., Lartey, A., Acheampong, T., Kyem, E., & Ketemepi, G. (2020). Between altruism and self-aggrandisement: Transparency, accountability and politics in Ghana's oil and gas sector. *Energy Research & Social Science*, *68*, 101536.

Table 35: Summary of the role of Parliament as per Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)

Issue	Applicable Provisions of Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)	Justification/Rationale *- Compliance (procedural requirements) with revenue management laws and regulations* *- Public engagement: the involvement of civil society and other non-government stakeholders in the process* *-Transparency of the process involving sufficiency and adequacy of disclosures* *- Rationale for the use of discretionary power*
GNPC funding and programmes • For a period not exceeding fifteen years after the commencement of the PRMA, the cash or the equivalent in barrels of oil ceded to GNPC shall not be more than 55% of the net cash flow from the carried and participating interests (CAPI) after deducting the equity financing cost and be reviewed every three years by Parliament • Parliament shall in each year approve the programme of activities of GNPC	Section 7(3)(a&b)	Parliament has been approving GNPC's budget and programmes over the years in line with the requirements of the PRMA. However, we found several instances within the literature where Parliament is cited for not undertaking enough scrutiny of GNPC's finances. These criticisms have come from both statutory organisations (PIAC and MoF) and non-statutory organisations (including CSOs and opposition parties). The main criticisms that GNPC has been subject to include the national oil company not focusing on its core exploration and production (E&P) mandate as defined in PNDCL64, and also being used as a 'cash-cow' by the government, for example, to finance and undertake politically motivated projects. These criticisms span GNPC investing taxpayer money into farming, gold mining, telecoms, and providing guarantees to secure fuel supplies for a power barge operated by an independent power producer in Ghana, among others.[231]
Review of restrictions on transfers from Ghana Heritage Fund (GHF)	Section 10(4)	This provision is yet to be triggered. The review is expected in 2026.

[231] See GOGIG (2019). *Developing a Comprehensive Reporting Framework to Cover Mandatory and Non-Mandatory Information Requirements of GNPC*. Ghana Oil and Gas for Inclusive Growth/Oxford Policy Management

• Parliament at 15-year intervals from the date of commencement of the PRMA can review the restrictions on transfers from the GHF and authorise the transfer portion of the accrued interest on the Ghana Fund into any fund established by or under this Act		
Variation of benchmark revenues • A variation of the Benchmark Revenue shall not become effective until the variation is certified in accordance with this Act and approved by Parliament	Section 17(4)	Parliament has approved all the changes in benchmark revenues over the years during annual or semi-annual budget reviews.
Transparency and accountability of petroleum receipts • The records of petroleum receipts shall also be presented to Parliament on the date of the Gazette publication	Section 8(1)	All the records of petroleum receipts are presented to Parliament during the annual or semi-annual budget reviews.
ABFA • For each financial year, the percentage of the Benchmark Revenue allocated for the ABFA shall be approved by Parliament as part of the national budget. • Any proposed changes following the review shall besubject to ratification by a resolution of Parliament supported by the votes of not less than two-thirds of the members of Parliament	Section 18(3) Section 18(6)	Parliament approves ABFA allocations as part of the national budget. However, the effectiveness of the ABFA spending and broader economic impact has come under scrutiny, as we highlight in Section 5 of this report.
Transfers into the Consolidated Fund • **Total amount withdrawn from the PHF** for budget funding	Section 19(2)	This provision was complied with. We did not find any instance where the government withdrew from the PHF more than what was approved by Parliament for that year either during the main or supplementary budget.

for any financial year **shall not exceed** the ABFA **approved by Parliament** for that financial year.		Nevertheless, as we highlight in Section 5.2, there were significant variations between ABFA allocations and disbursements, which have affected the sustainability of multi-year infrastructure projects in the last decade. Actual ABFA disbursement was GHS6.7 billion as against allocations of GHS12.4 billion, representing nearly 50% outturn.
GIIF Funding • **Amount allocated** to the Ghana Infrastructure Investment Fund (GIIF) **shall be included in the national budget** and approved by **Parliament**	Section 21(c)	A maximum of 25% of the ABFA allocated to public investment expenditure is to be allocated to the Ghana Infrastructure Investment Fund (GIIF), which was established in 2014 under the *Ghana Infrastructure Investment Fund Act*, 2014 (Act 877). Between 2015 and 2017, some ABFA funds were allocated to GIIF in accordance with Section 5(1b) of Act 877. This amounted to 16%, 25% and 24% of total ABFA allocation in the respective years. However, there were no GIIF allocations from the ABFA between 2018 and 2020. This was due to the government's stated intention to overhaul GIIF and the passage of the Earmarked Funds Capping and Realignment Act, 2017 (Act 947) in March 2017. The latter provided that the earmarked funds for each financial year should be 25% of total revenue. This was to free up resources to deal with the rigidities in public expenditure — the inability to shift public spending from one expenditure line to another, such as debt servicing. In March 2021, the government reversed its stand, by amending the GIIF Act and repealing Section 9 of the Earmarked Funds Capping and Realignment Act, 2017 (Act 947). It has now reassigned the 25% of the ABFA back to GIIF to fund direct infrastructure expenditure.

7.3.4 *Ghana Revenue Authority (GRA)*

The Ghana Revenue Authority assesses, collects and accounts for all petroleum revenues due to the State. It is established by law under the *Ghana Revenue Authority Act, 2009* (Act 791).

Overall, we find that the Ghana Revenue Authority has demonstrated meaningful progress and broadly executed its mandate under the law (Table 36). Given GRA's key role in assessing, collecting, and accounting for all petroleum revenues, there is a strong need to provide the organisation with all the **requisite human resources and tools to undertake this critical mandate effectively and efficiently**. As highlighted in some reports[232], GRA has benefitted from donor-led institutional strengthening and capacity building in the ten-plus years since first oil. These include "*building the capacity in revenue capture particularly in the Petroleum Unit of the Ghana Revenue Authority, improving revenue capture systems and improving inter/intra agency coordination to avert and retrieve potential revenue losses"*[233]*.* Tangible results include the issuance of practice notes, development of audit manuals, and capacity building of key GRA personnel. As the 2020 GOGIG Report[234] highlights when quoting an Assistant Commissioner (Petroleum Unit):

> *"It has taken 2 months by one GRA tax officer to complete the pre-production tax audit of ENI which started gas exports in 2018, a task which took 6-months by a team of GRA tax officers to audit pre-production costs of one oil company".*

Nevertheless, recent developments[235] point to the need to deepen and sustain the technical capacity of the GRA, especially in the areas of capital gains taxation on asset transfers, assessment of surface rentals, corporate income tax and additional oil entitlements (AOE), among others. Also, the 2020 Auditor-General's report on the management of the period makes a poignant observation[236]:

> *Out of the thirty-five (35) upstream companies registered with the Petroleum Commission, we noted that only four companies had made payments into the Petroleum Holding Fund (PHF). There was also no information from the GRA on whether the remaining thirty-one (31) companies had taxable income or*

[232] See GOGIG (2020). Improvements in the capture and oversight of oil and gas revenues, including a case study on the Multi-Agency Petroleum Revenue Committee (MAPERC). Ghana Oil and Gas for Inclusive Growth/Oxford Policy Management
[233] Ibid (n 232), at p.4
[234] Ibid (n 232), at p.13
[235] Tullow oil paying back some back taxes after assessment by GRA; recent closure of the Occidental Petroleum Corp deal to sell its interests in the Jubilee and TEN fields for US$750 million to Kosmos Energy and Ghana National Petroleum Corp deal, and assessment of surface rentals.
[236] See Report of the Auditor-General on the Management of the Petroleum Funds for the Financial Year Ended 31 December 2020, at p.17.

not. We did not also sight a reconciliation or audit reports from the Ghana Revenue Authority (GRA) indicating the taxable income, expected funds from the upstream companies and the status of outstanding amounts if any.

Tackling the issues highlighted above fundamentally comes down to financial resources needing to be provided to support the acquisition of industry software and capacity building at the GRA (Petroleum Unit and Transfer Pricing Unit), and to an extent, the Petroleum Commission on cost auditing.

Table 36: Summary of the role of the Tax Authority as per Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)

Issue	**Applicable Provisions of Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)**	**Justification/Rationale** *- Compliance (procedural requirements) with revenue management laws and regulations* *- Public engagement: the involvement of civil society and other non-government stakeholders in the process* *-Transparency of the process involving sufficiency and adequacy of disclosures* *- Rationale for the use of discretionary power*
• Tax Authority is to **assess, collect and account** for petroleum revenue due the Republic of Ghana	Section 3(1)	GRA has been exercising this authority. However, there are institutional challenges at the Tax Authority which is mitigating against effective assessment. This comes in the form of adequate human resource and technical needs – access to international databases, transfer pricing, institutional collaboration with other petroleum agencies. Some of the issues which led to disputes between the GRA and IOCs, have been given more clarity in the *Petroleum Revenue Management Regulations,* 2019 (L.I. 2381). This is expected to provide regulatory clarity going forward.
Payment with petroleum in place of cash • GRA is to record petroleum payments which are received in-kind instead of cash		n/a

7.3.5 *Investment Advisory Committee (IAC)*

The IAC, established in January 2012, advises the Ministry of Finance on investment decisions and the general monitoring of the management of the Fund.

Overall, we find that the IAC has demonstrated inadequate progress in executing its mandate under the law (Table 37). Significant aspects of the PRMA requirement have not been implemented and the broader objective of the PRMA requirement is far from fulfilled.

Table 37: Summary of the role of the Investment Advisory Committee as per Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)

Issue	Applicable Provisions of Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)	Justification/Rationale *- Compliance (procedural requirements) with revenue management laws and regulations* *- Public engagement: the involvement of civil society and other non-government stakeholders in the process* *-Transparency of the process involving sufficiency and adequacy of disclosures* *- Rationale for the use of discretionary power*
• IAC advises the Minister of Finance on qualifying instruments for investing the Ghana Petroleum Funds • Formulate and propose investment policy to the minister of finance	Section 27(1) Section 30(1)(a)	While the IAC has formulated the broad policy for the overall management of the Ghana Petroleum Funds, it was **only approved by the Minister of Finance several years down the line in 2020.** The 2018 and 2019 Auditor-Generals' report on the management of petroleum funds over the period noted that *"Our audit findings at the Ghana Petroleum Fund Secretariat indicated that the IAC is yet to finalise and approve an investment policy that will provide further guidance in the management of the Petroleum Funds as directed by the Act."* However, the 2020 Auditor-Generals' report on the management of petroleum funds over the period notes that *"the Investment Policy for the Ghana Petroleum Funds has been approved by the Minister for Finance for onward submission to Parliament for approval."*[237]

[237] See Report of the Auditor-General on the Management of the Petroleum Funds for the Financial Year Ended 31 December 2020, at p.18.

		There have also been challenges with defining the content of the investment policy. However, this has now been clarified under Section 15 of L.I. 2381. The investment policy must include the following: (a) the objective of the Ghana Petroleum Funds; (b) the role of the Bank of Ghana; (c) qualifying instruments; and (d) Ghana Stabilisation Fund. Others include (e) Ghana Heritage Fund; (I) eligible counterparties; (g) technical breaches of the mandate of the Bank of Ghana, if any; (h) review of the investment policy; and (i) any other information that the Minister may require.
• Advise the Minister of Finance on the broad investment guidelines and overall management strategies of the GPFs	Section 30(1)(b)	Over the ten-year period, the IAC has not been meeting regularly as per the requirements of the PRMA. This is highlighted in the 2018 Auditor-Generals' report on the management of petroleum funds and various PIAC reports. For example, the IAC did not meet between 2016 and 2018, leading some stakeholders to question its relevance.[238] The IAC was reconstituted in January 2019 and has met at least once every quarter since then, in line with the provisions of Act 815, as amended. Other issues that stakeholders have raised over the years is the perceived politicisation of appointments onto the Committee as this constrains operational independence and does not serve the national interest.[239]
• Develop for the finance minister the benchmark portfolio and desired returns and associated risks (as part of the investment guidelines)	Section 30(1)(c)	The benchmark portfolio and desired returns, and associated risks are yet to be developed. The 2020 Auditor-Generals' report on the management of petroleum funds notes some attempts to address this anomaly. The Report states that *"the Ministry of Finance (MoF) in collaboration with the Investment Advisory Committee (IAC) has prepared and submitted a draft Operations*

[238] See https://www.piacghana.org/portal/12/13/309/gov%E2%80%99t-breaching-prma-by-refusing-to-reconstitute-iac

[239] See https://www.piacghana.org/portal/12/13/257/why-the-absence-of-the-investment-advisory-committee-is-a-significant-violation-of-the-prma%3Ffbclid%3DIwAR0uqpGxNbYMu04PYdzj-eAb8FIRvXfzMKd3tZ6vWUAlRtUUzExot1vl388

		Management Agreement (OMA) to Bank of Ghana (BoG) requesting BoG to incorporate a "Business Plan" in the OMA for the management of the Ghana Petroleum Funds".[240] Such a plan would allow the Bank of Ghana (the Fund manager) "*to move asset allocation from 100% treasuries to a more balanced portfolio that includes equities and alternative assets".*[241] This will significantly improve the historically low portfolio returns from the GPFs, which stakeholders have heavily criticised.
• Monitor the performance of the GPFs; Quarterly (and annual) report on the performance and activities of the Ghana Petroleum Funds	Section 40(1)&(2)	The IAC maintains a public website at https://www.iacghana.com. However, the information there is a bit outdated. The reports hosted on the IAC's portal come from other organisations like the Bank of Ghana and the Ministry of Finance.

7.3.6 *Auditor-General*

The Auditor-General is responsible for the external audits of the petroleum funds and is mandated to audit them each year. The Auditor-General may delegate this duty to an external auditor. However, this delegation shall be for a period not exceeding three years and is non-renewable. The Auditor-General also submits an annual audit report to Parliament.

Overall, we find that the Auditor General has demonstrated sufficient progress and broadly executed its mandate under the law. Interestingly, we also find that PricewaterhouseCoopers has undertaken four (4) of such audits of the petroleum funds, which is a contravention of the PRMA (as amended)[242] – Table 38.

[240] See Report of the Auditor-General on the Management of the Petroleum Funds for the Financial Year Ended 31 December 2020, at p.15 (para 61-62)
[241] Ibid (n 240), p.15
[242] Section 45(3) of Act 815 (as amended)

Table 38: Summary of the role of the Auditor-General as per Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)

Issue	Applicable Provisions of Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)	Justification/Rationale *- Compliance (procedural requirements) with revenue management laws and regulations* *- Public engagement: the involvement of civil society and other non-government stakeholders in the process* *-Transparency of the process involving sufficiency and adequacy of disclosures* *- Rationale for the use of discretionary power*
• The Auditor-General is responsible for the external audit of the Petroleum Funds and shall audit those Funds each year. • The Auditor-General may delegate responsibility to an external auditor. • However, the appointment of the external auditor shall be for a period **not exceeding three years** and **is non-renewable**.	Section 45(1) Section 45(2) Section 45(3)	The Auditor-General has undertaken eight (8) external audits of the Petroleum Funds and made pertinent recommendations on improving fund governance. In line with the requirement to change auditors every three years, the following external auditors have been engaged: • *2013 – Ernst and Young* • *2014 – information not available* • *2015 – PricewaterhouseCoopers* • *2016 – PricewaterhouseCoopers* • *2017 – PricewaterhouseCoopers* • *2018 – PricewaterhouseCoopers* • *2019 – information not available* • *2020 – Deloitte Touche Tohmatsu* PricewaterhouseCoopers undertook four (4) of the audits, which is a contravention of the PRMA (as amended)
• The Auditor-General receives from the Bank of Ghana the financial statements and relevant documents on the Petroleum Funds for audit not later than three months after the end of the financial year.	Section 46(1)	All the required information, including the financial statements and relevant documents on the Petroleum Funds for audit, was submitted on time.

• The Auditor-General shall, not later than three months after the receipt of the financial statements and other relevant documents, submit the audited report to Parliament	Section 46(2)	The Auditor-General's report on the management of the petroleum funds has been regularly submitted to Parliament.
• The Auditor-General shall publish the reports on the Petroleum Funds within thirty days after submission to Parliament.	Section 46(4)	The Auditor General's findings are published in various annual performance audit reports from 2014 to date. All the audit reports (apart from 2014 & 2019) are available on the Auditor General's website at https://ghaudit.org/web/reports/
• The Auditor-General may carry out special audits or reviews of the Petroleum Funds in the public interest and shall submit to Parliament reports on the audits or reviews undertaken	Section 47	No such special audits have been carried out on the petroleum funds in the ten years since first oil production.

7.3.7 *Ghana National Petroleum Corporation (GNPC)*

GNPC is Ghana's national oil company and has a mandate under the G*hana National Petroleum Corporation Act, 1983* (PNDCL 64) to undertake the exploration, development, production and disposal of petroleum.

Overall, we find that GNPC has demonstrated meaningful progress and broadly executed its mandate under the PRMA (albeit somewhat limited in scope, as shown in Table 39), and PNDCL 64[243].

[243] See Section 5 for detailed analysis of GNPC spending and political economy drivers.

Table 39: Summary of the role of GNPC as per Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)

Issue	Applicable Provisions of Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)	Justification/Rationale *- Compliance (procedural requirements) with revenue management laws and regulations* *- Public engagement: the involvement of civil society and other non-government stakeholders in the process* *-Transparency of the process involving sufficiency and adequacy of disclosures* *- Rationale for the use of discretionary power*
• GNPC pays into the PHF corporate income tax, royalty, dividends, or any other amount due in accordance with the laws of Ghana	Section 6(d)	GNPC is a party to all the petroleum agreements in Ghana, holding the state's carried and participating interest (CAPI).[244] Ghana's petroleum entitlements have been paid into the PHF. Before the PRMA amendment, Section 7(2)(b) of Act 815 allowed deductions for GNPC's net share of the cash or the equivalent barrels ceded to it and the remainder transferred to the PHF. This was because of a defect/loophole in the PRMA which stated not only that revenue due to Ghana from the direct or indirect participation of the Republic in petroleum operations shall be paid into the PHF but at the same time allowed deductions for equity financing cost, including advances and interest of the carried and participating interests paid to GNPC.

7.3.8 *PIAC*

The Public Interest and Accountability Committee (PIAC) is established under the PRMA to monitor and evaluate compliance by government and other relevant institutions in the management and use of petroleum revenues and investments. It also has the mandate to provide space and a platform for the public to debate the extent to which spending prospects and the management and use of revenues conform to development priorities.

[244] The carried Interest is defined in the petroleum agreement as an interest held by GNPC in respect of which the contractor pays for the conduct of petroleum operations without any entitlement to reimbursement from GNPC as expressly provided for. The carried interest was initially set at 10 per cent under the Petroleum (Exploration and Production Act), 1984 (PNDCL 84) but was increased to 15 per cent under the Petroleum (Exploration and Production) Act, 2016 (Act 919). Additionally, GNPC receives in-kind royalty payments on behalf of the State.

Overall, we find that PIAC has demonstrated satisfactory progress and broadly executed its mandate under the law – Table 40. However, this comes against significant structural and organisational challenges it faced, including "suspicion and cynicism" [245] from the government in its infant days. In the early days of PIAC, the organisation's reputation suffered with questions being raised "around donor influence and the objective and neutrality of the institution"[246]. This was because PIAC was being funded by the likes of German Technical Cooperation (GIZ), Natural Resource Governance Institute (NRGI), the FCDO-funded Ghana Oil and Gas for Inclusive Growth (GOGIG), and the Institute of Economic Affairs (IEA), among others. Further compounding this perception was the fact that PIAC's first two public reports on the management of Ghana's petroleum funds were highly critical of the overall management of oil revenues and expenditures[247]. Nevertheless, **the statutory provision for dedicated funding to PIAC using part of ABFA proceeds since 2016 has mitigated this perception of donor control and improved relations with the government and allied agencies**.

We find that PIAC has become more assertive in its engagement with stakeholders, evidenced by the strong recommendations in its annual and semi-annual reports. Also, the ramping of PIAC's technical expertise both at the Committee and Secretariat level has contributed significantly to its ability to monitor and evaluate compliance by government and other relevant institutions in the management and use of petroleum revenues and investments. The achievements by PIAC have been further catalysed with the provision of infrastructure such as office space, and critical I.T. systems, which have allowed the organisation to operate efficiently and effectively. This is the more remarkable given that PIAC operated with limited infrastructure and lacked a permanent office space to carry out its activities for the first five years of its establishment (2011 to 2016).[248]

[245] Oppong, N. (2016). Ghana's Public Interest and Accountability Committee: an elusive quest for 'home-grown' transformation in the oil industry. *Journal of Energy & Natural Resources Law*, *34*(3), 313-336.
[246] Graham, E., Gyampo, R. E. V., Ackah, I., & Andrews, N. (2019). An institutional assessment of the Public Interest and Accountability Committee (PIAC) in Ghana's oil and gas sector. *Journal of Contemporary African Studies*, *37*(4), 316-334.
[247] Debrah, E., & Graham, E. (2015). Preventing the oil curse situation in Ghana: the role of civil society organisations. *Insight on Africa*, *7*(1), 21-41.
[248] Supra (n 172)

Table 40: Summary of the role of PIAC as per Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)

Issue	Applicable Provisions of Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)	Justification/Rationale *- Compliance (procedural requirements) with revenue management laws and regulations* *- Public engagement: the involvement of civil society and other non-government stakeholders in the process* *-Transparency of the process involving sufficiency and adequacy of disclosures* *- Rationale for the use of discretionary power*
• **Monitor and evaluate compliance** with the PRMA by the government and other relevant institutions in the management and use of the petroleum revenues and investments	Section 52(a) Section 56(a,b&c)	Section 56 (1) of PRMA 815 as amended enjoins PIAC to produce two reports every year, namely a semi-annual report (to be published by 15th September) and an annual report (to be published by 15th March). PIAC, since its inception, has produced numerous impressive reports from 2011 to 2020 on the oil and gas sector. PIAC's annual reports are publicly available at https://www.piacghana.org/portal/5/25/piac-reports. The reports thoroughly provide details on sectoral activity such as production and exports as well as allocations to the various areas mandated by the PRMA. The reports also include detailed recommendations, most of which the relevant institutions have implemented, while others remain outstanding.
• **Provide space/platform for the public to debate** whether spending prospects and management and use of revenues conform to development priorities [ABFA spending]	Section 52(b) Section 56(c)	PIAC has held various public fora in the ten years since first oil to educate the public and take grassroots feedback on the use and management of petroleum revenues. A highly informative study conducted by Edjekumhene et al. (2019)[249] assessed the extent to which PIAC has been able to discharge this mandate under the PRMA and the outcomes thereof. They evaluated the effectiveness of PIAC's information dissemination and engagement efforts in a randomised field experiment covering 120 districts throughout Ghana and found the following:

[249] Edjekumhene, I., Voors, M., Lujala, P., Brunnschweiler, C., Owusu, C. K., & Nyamekye, A. (2019). *Impacts of key provisions in Ghana's Petroleum Revenue Management Act* (No. 94). International Initiative for Impact Evaluation. Available: https://www.3ieimpact.org/sites/default/files/2019-03/IE94-Ghana-Petroleum-Revenue-Management-Act.pdf

		• PIAC Leaders' Information Dissemination Forum positively affected the knowledge and awareness levels of both local District Assembly members (DAMs) and Unit Committee Members (UCMs). However, such knowledge was not trickling down from the DAMs/UCMs to the general public. • PIAC Leaders' Information Dissemination Forum seems to have also had some positive effect on the willingness to demand transparency on the part of DAMs (despite the effect being rather small) • PIAC should intensify and scale up its citizen engagement programmes and activities using citizen engagement platforms. This will help PIAC to decentralise its public engagements to the district level.
• **Provide independent assessments on the management and use of petroleum revenues** to assist Parliament and the Executive in the oversight and performance of related functions	Section 52(c) Section 56(a,b&c)	PIAC's independent assessment of petroleum revenues has led to some tangible results, some of which we highlight below. Firstly, the GRA, adhering to PIAC's recommendation to audit the financials of the IOCs operating in the country, was reported to have retrieved about US$60 million in back taxes from Tullow Oil Ghana Ltd and Kosmos Energy Ghana Ltd. Secondly, the Ministry of Finance has since 2017 been adhering to Section 48(b) of the PRMA by providing updates on ABFA project implementation status. Thirdly, as we have highlighted in other sections of this report, PIAC's recommendations and subsequent engagements with stakeholders — GRA, Petroleum Commission and Bank of Ghana — have improved the processes for estimating and payment of surface rentals by IOCs. Nevertheless, PIAC could go further in its assessment mandate, especially on ABFA allocation and spending. Detailed value-for-money and impact analysis are needed ten years down the line, especially at a sectoral level. Also, while PIAC has conducted some independent assessments over the years, it lacks an enforcement mandate as the PRMA does not cloak it with such powers. As such, PIAC's sole enforcement outlet is

		Parliament (specifically the Public Accounts Committee) to enforce some of its recommendations. PIAC has also sought in recent times to engage (petition) the Auditor-General to probe (audit) what it calls 'shoddy' oil-funded projects.[250] However, no special audit has been undertaken yet on ABFA funded projects.

7.3.9 *Petroleum Commission*

The Petroleum Commission (PC) was established under the Petroleum Commission Act, 2011 (Act 821) to regulate and manage petroleum resource utilisation and coordinate the upstream petroleum sector policies. In the context of petroleum revenue management, the PC did not play any explicit role until the passage of the Petroleum Revenue Management Regulations, 2019 (L.I. 2381).

Overall, we assess that the PC has made satisfactory progress in meeting aspects of the PRMA applicable to it, and the broader objective of the PRMA requirement has been fulfilled (Table 41)**.**

Table 41: Summary of the role of Petroleum Commission as per Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)

Issue	**Applicable Provisions of Act 815 (as amended by Act 893) and the PRMA Regulations (L.I. 2381)**	**Justification/Rationale** *- Compliance (procedural requirements) with revenue management laws and regulations* *- Public engagement: the involvement of civil society and other non-government stakeholders in the process* *-Transparency of the process involving sufficiency and adequacy of disclosures* *- Rationale for the use of discretionary power*
Payment of surface rentals • The Petroleum Commission shall furnish GRA with the acreage of each contract area, phase of operation and the surface rental per square kilometre not later than the 28th of		The estimation of surface rentals is an example of how the lack of institutional collaboration and coordination has hampered regulatory quality in the upstream sector. For example, in 2016, various PIAC and other meeting memos indicated that only five (5) out of 18 license holders paid surface rentals (only 33% of estimated receipts) during the review period. A deep dive

[250] *PIAC petitions Auditor General to investigate 'shoddy' oil-funded projects* (2018). Available at: https://www.ghanaweb.com/GhanaHomePage/business/PIAC-petitions-Auditor-General-to-investigate-shoddy-oil-funded-projects-642093

February of each year for existing contracts; or in the case of a new contract area, within thirty days from the date of ratification of the relevant Petroleum Agreement.		into the root causes, found, among others, that there was not enough collaboration and information sharing between the PC, Bank of Ghana, and GRA. A stakeholder forum convened by PIAC recommended, among others, that “oil companies must be taxed based on invoices generated by PC and in accordance with their respective Petroleum Agreements.” and “there must be information flow between the PC, GRA and the BoG, on the list of paid and unpaid companies. GRA must obtain an updated list of companies and addresses from PC to trace defaulting companies in order to retrieve monies owed.” Some of these recommendations were eventually incorporated into L.I. 2381, which now clearly defines the roles of each of the actors regarding the calculation of surface rentals. The PC has the mandate to provide all the necessary information such as acreage of each contract area, phase of operation and the surface rental per square kilometre to the GRA. The GRA then has the actual mandate to determine the actual surface rentals payable in respect of each petroleum agreement or contract area. We can confirm that the PC has been regularly providing the required information (and others) to the GRA to estimate surface rentals and other taxes due to the State.

7.4 Conclusion

This section undertook a detailed stakeholder mapping and analysis to understand the role of the various institutional actors and other stakeholders in Ghana’s petroleum revenue management regime. This was done through desk reviews and key stakeholder interviews. A traffic light system of the performance of the various institutions was produced based on identified key themes and sub-indicators.

We find that The Bank of Ghana, Auditor-General, Public Interest and Accountability Committee and Petroleum Commission have demonstrated satisfactory progress in implementing the relevant provisions of the PRMA. On the other hand, the Ministry of Finance, Parliament, The Ghana Revenue Authority, and Ghana National Petroleum

Corporation have demonstrated meaningful progress in implementing the relevant provisions of the PRMA. Lastly, the Investment Advisory Committee has demonstrated inadequate progress in our view.

We also identified some institutional gaps in the processes and flows that can help improve and ensure effective management of Ghana's petroleum revenues. For example, regarding ABFA utilisation, the PRMA falls short of prescribing the exact specifics or definition of these 12 areas, leaving room for conflation and potential abuse by the political leadership of the day. There are other lingering questions about the impact of ABFA funded projects and the attainment of outcomes tied to broader national development objectives. Ghana's underlying political economy and political settlements is such that many governments have not found the need to develop and/or implement a long-term national development plan. The requirement under 21(2) of the PRMA (as amended) for the ABFA to be used to (1) maximise the rate of economic development, (2) promote equality of economic opportunity to ensure the well-being of citizens, and (3) undertake even, and balanced development of the regions is yet to be fully attained. Significant variations between ABFA allocations and disbursements have affected the sustainability of multi-year infrastructure projects in the last decade. It is expected after ten years to undertake a special audit of ABFA funds. The audit could also focus on sectoral allocations in line with requirements of the PRMA and the PFM Act. The Special audit must be a joint institutional effort led by the Auditor General and supported by PIAC.

On the Ghana Petroleum Funds (GPFs) management, the lack of a clearly defined investment policy was subsequently rectified eight years down the line via the P*etroleum Revenue Management Regulations,* 2019 (L.I. 2381). These delays were also compounded by the non-constitution of the Investment Advisory Committee (IAC) between 2017-2019, leading to organisations such as PIAC citing breaches of the PRMA. The GPFs' investment policy has been approved by the Minister for Finance and is awaiting Parliamentary approval. Other issues that stakeholders have raised over the years is the perceived politicisation of appointments onto the IAC.

We are encouraged by plans to allow the Bank of Ghana (the Fund manager) to move the GPFs asset allocation from 100% treasuries to a more balanced portfolio that includes equities and alternative assets. This will significantly improve the historically low portfolio returns from the GPFs, which stakeholders have heavily criticised.

Finally, L.I. 2381 also brings much-needed clarity in the interpretation and operational aspects of petroleum revenue management by strengthening the Ghana Revenue Authority (GRA), the key revenue collection and assessment institution. GRA has benefited from donor-led institutional strengthening and capacity building in the ten-plus years since first oil. Evidence of these includes recovery of extra taxes from IOCs to the Treasury, the issuance of practice notes, development of audit manuals, and continuous capacity building of key GRA personnel. Nevertheless, there is a strong imperative to provide the GRA with all the requisite human resources and tools to undertake this critical mandate effectively and efficiently.

8 Conclusions & Way Forward

This section covers

- Summary of the report
- Recommendations and key areas for governance reforms

8.1 Summary of the report

This report assessed Ghana's management and use of petroleum revenue over the past ten-plus years in line with the requirements of Ghana's *Petroleum Revenue Management Act*, 2011 (Act 815 as amended by Act 893) and the *Petroleum Revenue Management Regulations*, 2019 (L.I. 2381). It encompassed an assessment of the performance of the institutions assigned duties by the PRMA for the past decade and a thorough evaluation of the socio-economic impact of the management and use of petroleum revenue on the development of Ghana.

The report focused on **four key areas**:

1. **Petroleum production, sales and revenue collection:** What are the petroleum production and sales processes, and how have they optimised value creation for the country?
2. **Revenue allocation, distribution, and utilisation:** What agencies are involved in petroleum revenue allocation? How does the allocation system, especially ABFA, optimise value creation for the country? Are petroleum revenue allocations (procedural requirements) compliant with the PRMA and regulations? To what extent is there public engagement (the involvement of civil society and other non-government stakeholders in the process)? Are there sufficient disclosures, including explaining the rationale for using discretionary powers?
3. **Management of the Ghana Petroleum Funds (GPFs):** what are the philosophical underpinnings of the GPFs? How have flows into the GPFs changed over the years? What political economy factors have driven the management and use of the GPFs over the past decade?
4. **Institutional assessment of petroleum revenue management (including wider sectoral governance issues):** What is the responsibility of the various actors on petroleum revenue management in Ghana? How have these institutions performed in their roles? What are the other broader sectoral governance issues on petroleum revenue management in Ghana?

8.2 Key findings

Below are the report's key findings, organised around the **four areas.**

Petroleum production, sales and revenue collection

1. Ghana has, as of 2021, **enacted the necessary legal framework to govern its oil industry.** However, in respect of decommissioning, Regulations are yet to be passed. Ghana's Model Petroleum Agreement (2000) has been modified over time and culminated in the modified/updated Model Petroleum Agreement (2019). The latter petroleum agreements do not contain freezing stabilisation clauses, unlike the earlier ones. This positive development allows the state and investors to renegotiate contract terms as economic conditions necessitate. **There is, however, the need to ensure that a material change has been well-established** before changes are made to a petroleum agreement.
2. The country has made **commendable efforts to try and increase the revenue that accrues to the State** by making changes in legislation to control petroleum costs claimed by the IOCs, statutorily increasing its Carried Interest stake, and contractually preventing the petroleum agreement from being a fiscal enclave in respect of taxes and imposts that the State can levy. However, there is the **need for a laser-like approach to cost monitoring as this, along with transfer pricing**, is one of the significant pathways the State loses money in the industry.
3. **Ghana has signed eighteen (18) petroleum agreements/contracts (PAs) since 2004 covering its offshore basins**, namely the Accra-Keta cretaceous basin (Eastern), Saltpond (Central) palaeozoic basin and Tano-Cape Three Points cretaceous basin (Western). Of these, three (3) producing fields, namely the Jubilee, Tweneboa-Enyenra-Ntomme (TEN) and Sankofa-Gye Nyame (SGN), account for petroleum revenues as of end-2020. The data shows that **total production from Ghana's three fields peaked in 2020.** Production will **continuously decline if nothing is done through new in-fill developments on these existing fields or new fields coming on-stream**. Peaking is further compounded by **reservoir challenges leading to production losses on some field**s. At the same time, the above-surface issues include FPSO reliability challenges and delayed gas processing infrastructure forcing gas re-injection, which is ultimately negatively impacting well performance.
4. **The energy transition has caused a fundamental re-think of how things are done in the industry, including licensing**. The challenge is attracting new investors to explore Ghana's acreage, given global efforts to move away from fossil fuels to renewable energy. There is the **need to consider the changing landscape and evaluate whether competitive bidding remains the best option for now**.
5. **Ghana's upstream petroleum industry is still primarily an enclave with local industries limited mainly to the non-technical aspects of the industry**. The African Continental Free Trade Area (AfCFTA) also has necessitated looking at local content no longer exclusively on the local level but the regional.

Revenue allocation, distribution, and utilisation

6. Cumulatively, **we estimate that about US$31.22 billion of value has been generated from all of Ghana's three producing fields, comprising both**

entitlements due to the contractor parties and the Ghana Group. The achieved selling prices of the Ghana Group's crude entitlement was closely aligned to traded Brent prices, reflecting a continuous and commendable effort to generate value for the country.

7. **The Ghana Group has earned US$6.55 billion in total petroleum receipts between 2011 and 2020, equivalent to (9.97% of 2020 GDP**). Regarding the breakdown of petroleum receipts by fiscal instrument, we find that **carried & participating interest (CAPI) has by far generated the highest share for Ghana, accounting for 58% or US$3.81 billion** of the total US$6.55 billion revenue earned. This is followed by royalties at 25% (1.64 billion) and then corporate income tax at 17% or US$1.08 billion. Other smaller income receipts include gas receipts, income (interest) earned on the PHF, and price differentials/other income. In order to improve revenue contribution from CAPI, there is the need for Ghana to diligently review costs submitted by the operators since this has a direct impact on how much net proceeds will be available to the Ghana Group.
8. **Annual Budget Funding Amount (ABFA) has been allocated the highest amount of US$2.6 billion (40%) over the period**. This is followed by Ghana National Petroleum Cooperation (GNPC) receiving US$2.0 billion (30%), representing both equity financing costs (Level A receipts) and other operational expenses (Level B receipts). GNPC's total equity financing costs (Level A receipts) amounted to US$1.14 billion over the period, representing 55% of the total GNPC allocations. Level B receipts for other expenditures such as staffing and other operational costs amounted to US$921 million or 45% of total allocations. Also, the Ghana Stabilisation Fund (GSF) has received US$1.39 billion (21%) of total revenues, whereas the Ghana Heritage Fund (GHF) has received US$586 million (9%) of the total allocation. These allocations are broadly consistent with the PRMA 2011, Act 815 (as amended).
9. ABFA has been a critical financing source for the national budget. Nevertheless, w**hile total benchmark revenue allocations to ABFA amounted to GHS9.41 billion (US$2.61 billion), allocations, on the other hand, amounted to GHS8.51 billion (US$2.28 billion), leaving the balance being swept into the Consolidated Fund** under the government's Treasury Single Account (TSA) policy.
10. In terms of allocations, **we find that the ABFA has been spent on seven (7) out of the twelve (12) priority areas** specified under the PRMA. Accordingly, ABFA allocations have been on the following priority order (scale): (1) Roads, railways, and other infrastructure: 53.51% of total ABFA allocations; (2) Physical Infrastructure and service delivery in education: 21.74%, of which government's flagship programmes such as the Free SHS policy accounts for most of the ABFA education spending; (3) Expenditure on amortisation of loans for oil and gas infrastructure: 10.11%; (4) Agriculture modernisation: 8.02%; (5) Capacity building (including oil and gas): 4.21% of total ABFA allocations; (6) Physical infrastructure and service delivery in health: 1.40% of total ABFA allocations; (7) Ghana Infrastructure Investment Fund (GIIF): 0.52% of total ABFA allocations; (8) Industrialisation: GHS31.80 billion (0.37%) of total ABFA allocations; and (9)

Public Interest and Accountability Committee (PIAC): 0.14% of total ABFA allocations.

11. **We find evidence of ABFA allocations being spread across the length and breadth of the country**, thus **partially satisfying** the requirement under Section 21(2)(c) of the PRMA to undertake even and balanced development of the regions. However, **the micro-level evidence base also indicates that the selection of several ABFA-funded projects was not participatory; it was instead imposed top-down from Accra rather than** bottom-up. **In addition, rules governing the selection of spending areas in the PRMA are not consistent with resource allocation structures under the budget,** posing potential risks of non-compliance to efficient prioritisation as required under the PRMA.
12. While the PRMA mandates ABFA project selection to be guided by a medium-term expenditure framework (MTEF) aligned with a long-term national development plan, **a review of most medium-term plans (MTPs) of beneficiary Ministries indicates inadequate analysis and evidenced-based data to back the decisions in these documents**. This is **highly symptomatic of Ghana's underlying political settlements regime** whereby project selection in the national budget is very political, driven by political party manifestos rather than well researched and costed medium-term plans (MTPs) or even a national development plan. Furthermore, our review shows **no coordination and consensus between projects implemented across MDAs under the same ABFA spending area**. Also, there is no mechanism to ensure that ABFA disbursements made across multiple sector MDAs under the selected priority area are well coordinated to generate optimum social returns.
13. In essence, **ABFA investments have yielded some successes, but its overall impacts have been minimal, delayed, or negligible. Many stakeholders believe ABFA has not delivered their expectations in maximising the rate of economic development and enhancing their well-being**. Several of the challenges affecting the effective and efficient utilisation of petroleum revenues, especially the ABFA, are **macro-fiscal in form**. The potential for ABFA to deliver optimal outcomes is hinged on several underlying macro-fiscal factors, including the robustness of the existing public financial management system, efficient budget preparation, implementation, monitoring and accountability system, efficient macroeconomic management systems, among others. **The evidence points to weaknesses in these underlying factors**; hence the implementation of ABFA in the last decade has suffered from broader challenges associated with macro-fiscal management.

Management of the Ghana Petroleum Funds (GPFs)

14. The **lack of a clearly defined investment policy has constrained the ability of Fund Managers to earn higher returns on the GPFs**. These constraints were also **compounded by the non-constitution of the Investment Advisory Committee (IAC)** between 2017-2019, leading to organisations such as PIAC citing breaches of the PRMA. The GPFs' investment policy has been given impetus eight years down the line in the Petroleum Revenue Management

Regulations, 2019 (L.I. 2381). The Minister for Finance has approved the policy and is awaiting Parliamentary approval. Another issue that stakeholders have raised over the years is the perceived politicisation of appointments onto the IAC.

15. We find that **74% of the withdrawals from the GSF have been used for debt repayment,** while 21% has been allocated to the Contingency Fund to deal with national emergencies such as the COVID-19 pandemic. Interestingly, only **4% has been utilised to shore up ABFA shortfalls**.
16. These **debt repayments are symptomatic of developments within the Ghanaian economy over the past decade.** Due to low domestic revenue mobilisation, increased interest payments have occasioned excessive borrowing (both domestically and externally) to meet budgetary shortfalls. Ghana's debt servicing needs have become expensive due to the high coupon rates and volatility of the cedi, the local currency.
17. Given the historically low returns**, there is a need to rethink the GPFs' investment strategy to generate comparable returns to a benchmark portfolio**.

Institutional assessment of petroleum revenue management

18. We find that **The Bank of Ghana, Auditor-General, Public Interest and Accountability Committee and Petroleum Commission have demonstrated satisfactory progress** in implementing the relevant provisions of the PRMA. On the other hand, **the Ministry of Finance, Parliament, The Ghana Revenue Authority, and The Ghana National Petroleum Corporation have demonstrated meaningful progress** in implementing the relevant provisions of the PRMA. Lastly, The Investment Advisory Committee has demonstrated inadequate progress in our view.
19. Regarding ABFA utilisation, t**he PRMA falls short of prescribing the exact specifics or definition of these 12 areas**, leaving room for conflation and potential abuse by the political leadership of the day. In addition, there are other lingering questions about the impact of ABFA funded projects and the attainment of outcomes tied to broader national development objectives.
20. The **requirement under 21(2) of the PRMA** (as amended) for the ABFA to be used to (1) maximise the rate of economic development, (2) promote equality of economic opportunity to ensure the well-being of citizens, and (3) undertake even, and balanced development of the regions **is yet to be fully attained**.
21. It is a matter of common knowledge that after ten years since first oil, **there is the need to undertake a special audit of ABFA funds over the past ten years.** The audit could also focus on sectoral allocations in line with requirements of the PRMA and the PFM Act. The Special audit must be a joint institutional effort led by the Auditor General and supported by PIAC.
22. There is a **strong imperative to provide the GRA and other institutions such as the Petroleum Commission, IAC and Ministry of Finance with all the requisite human resources and tools** to undertake their critical mandate of petroleum revenue management more effectively and efficiently.

8.3 Recommendations

The report outlines policy recommendations to improve petroleum revenue management in Ghana. Recommendations are proposed based on the identified themes and itemised in the table below.

(1) Petroleum production, sales, and revenue collection (extracting and taxing the resource wealth)		
Research findings and key impacts on petroleum revenue in Ghana	**Recommendations**	**Responsible Agency**
Award of contracts and licenses ○ **Equity participation by the government**: **Ghana has made commendable efforts over the past few years to try and increase the revenue that accrues to the State** by statutorily increasing its Carried Interest stake from 10% to 15% and making changes in legislation to control petroleum costs claimed by the IOCs. ○ **Stabilisation agreements**: Ghana's **move away from freezing stabilisation clauses to equilibrium balancing ones is a step in the right direction**. While this permits parties to the PA to renegotiate the agreements in the case of material changes in circumstances, **we find that this has been abused to unnecessarily vary some contracts in favour of some IOCs to the neglect of the State**. For example, on 23rd December 2019, Ghana made significant amendments to its petroleum agreement with Norwegian-based company, Aker Energy, in respect of the Deepwater Tano/Cape Three Points (DWT-CTP) area. This was after amendments were made to the Petroleum (Exploration and Production) (General) Regulations, 2018, by the Petroleum (Exploration and Production)(General)(Amendment) Regulations, 2019	1. **Stabilisation agreements: The Ghanaian state needs to ensure that a material change has been well-established before changes are made to a petroleum agreement.** As Stephens and Acheampong (2021:p.21) have argued, *"equilibrium economic balancing clauses, which were enshrined in Section 13 of PNDCL 84 and currently in Section 20 of Act 919, must be able to be triggered by the IOC only where there is demonstrable proof that material changes in circumstances have indeed occurred that adversely affects the economic balance of the agreement and must not be used as a backdoor to re-negotiate terms already agreed upon, thus bastardising the licensing process"*[252]. 2. **Cost monitoring: Ghana must adopt a laser-like approach to cost monitoring as this, along with transfer pricing, are one of the major ways the State loses money in the industry**. There is the strong need for Ghana to vet costs provided by the IOCs, as this ultimately goes to the heart of whether the country would get its fair share of revenues. To effectively operationalise this, there is **the strong need to provide adequate human resources and technical capacity (access to industry benchmarking software and databases) to the Ghana Revenue Authority (Petroleum and Transfer Pricing Units)** to conduct audits effectively. This includes authenticating shipment documents, verifying crude oil and gas export volumes and values, and establishing arm-length trading transactions involving related IOC entities.	Parliament Ministry of Energy GRA Petroleum Commission GRA Ministry of Finance GNPC

[252] Stephens, T. K., & Acheampong, T. (2021). Does the politics matter? Legal and political economy analysis of contracting decisions in Ghana's upstream oil and gas industry. *The Journal of World Energy Law & Business*.

(L.I. 2390) despite many protestations by civil society and technocrats alike.[251] ○ **Competitive bidding in lieu of energy transition and potential asset stranding**: The energy transition has caused a fundamental re-think of how things are done in the upstream industry, including in licensing. The **data shows that total production from Ghana's three fields peaked in 2020 and** will continuously decline if nothing is done by way of new in-fill developments on these existing fields or new fields coming on-stream. **Regulation and monitoring of operations** ○ **Significant institutional challenges regarding the capacity of some state institutions to monitor petroleum costs efficiently:** We estimate that about US$31.22 billion of value has been generated from all of Ghana's three producing fields. However, the Ghana Group's liftings from 2011 to 2020 amounts to US$5.4 billion or 17.30% of the total estimated value. While this reflects the underlying fiscal arrangements in place, our analysis indicates the lack of control over project costs is one of the root causes for why the Ghanaian state has not gotten its fair share of the petroleum revenues, especially when compared to some of the pre-oil projections. The lack of control over project (petroleum) costs, which are deductible for petroleum (corporate) income tax and additional oil entitlement (AOE), means that several millions of dollars of potential revenue due to the state have been unnecessarily sacrificed.	3. **There is also the need for more institutional coordination and collaboration with other petroleum agencies to share data and ideas**. We advocate for the reconstitution and formalisation of the Multi-Agency Petroleum Revenue Committee (MAPERC) to serve as a technical inter-agency coordination committee. MAPERC, chaired by the GRA, would be the forum to resolve issues such as updating petroleum accounting guides, developing a petroleum tax guide, validating IOC tax returns and liabilities, validating IOC costs to calculate CIT and AOE, and setting the scope for specialised audits, among others. ***GNPC*** 4. **GNPC needs the right corporate governance structure to operate commercially if its aspirations to become a world class operator by 2027 are to be realised.** At the moment, there is too much political interference (external influences) in the decision-making, which constrains the body corporate's ability to make optimal choices. These pressures are widely symptomatic of Ghana's prevailing political economy and political settlements whereby senior management are changed with every new government. However, if nothing serious is done to position the NOC on a firmer footing, operating on sound commercial and technical principles, then it is highly unlikely that Ghana would be able to generate any higher returns or revenues to sustain the economy, especially given the pressures of the looming energy transition. **To do this, we recommend appointment to the GNPC Board based solely on technocratic expertise and which should be clearly defined in an update (amendment to PNDCL 64)**. Board	Parliament Ministry of Energy GNPC

[251] Stephens, T. K., & Acheampong, T. (2021). Does the politics matter? Legal and political economy analysis of contracting decisions in Ghana's upstream oil and gas industry. *The Journal of World Energy Law & Business*. https://doi.org/10.1093/jwelb/jwab035

Interestingly, these two fiscal instruments have the highest marginal rates under Ghana's fiscal regime. Also, anecdotal reports from some interviewees point to some oil companies engaging in gold-plating behaviours, or in some instances, made extra unanticipated investments in the fields, which have significantly reduced the tax base. ○ **Local content and local participation:** Ghana's upstream petroleum industry is still largely an enclave with local industries largely limited to the non-technical aspects of the industry. The evidence shows little spill-over effects into other sectors of the economy, particularly manufacturing and agriculture. The latter is also to do with low revenue allocation to the agriculture sector (8.02% of total ABFA allocations between 2011 and 2020) **Collection of taxes (fiscal regime)** ○ **Royalties, corporate income tax (CIT) and additional profits tax (AOE): Ghana's petroleum fiscal regime undoubtedly benefits the contractors.** This is despite recent attempts to correct this imbalance by increasing the CAPI. We find that CAPI has by far generated the highest share, accounting for 58% or US$3.81 billion of the total US$6.55 billion revenue earned. This is followed by royalties at 25% (1.64 billion) and then corporate income tax at 17% or US$1.08 billion. This implies the strong need for Ghana to vet costs provided by the IOCs. This ultimately goes to the heart of whether the country will get its fair share of revenues, especially for CIT and AOE estimation purposes. ○ **Revenue administration, profits assessment and tax auditing**: **Weak revenue administration capacity,**	appointments must include independent institutional representatives, particularly from the Petroleum Commission, EPA, the local supply chain, academia/civil society. Qualifications to be an independent director must be seasoned professionals with experience in petroleum, legal and financial matters. Furthermore, criteria for evaluating performance should be formally constituted to ensure effective running of the organisation and deepen accountability. 5. **There is the need for an amendment to the PRMA to allow the GNPC Body Corporate to borrow commercially using its net share/entitlements of the CAPI (Level B funding) to expand its operations.** However, this may not be the case if the Corporation decides to use any of its commercial affiliates and subsidiaries such as GNPC Explorco to do this. Any such commercial borrowing must have a clearly justified and well laid out business case on how the monies will be utilised, and appropriate benchmark returns estimated, including the value at risk (downsides). Also, guidelines and limits on GNPC borrowings to be funded under the Equity Financing Cost must be properly established. This should be clearly spelt out in any amendment to the PRMA together with the approval process. 6. **GNPC needs to re-prioritise its investment portfolio.** Our analysis shows that GNPC has stakes in several other ventures which are unprofitable or not aligned with the Corporation's core ethos and strategic intent of becoming a world-class operator by 2027. In this regard, there is a need for a more comprehensive strategic re-prioritisation and re-alignment of the total investment portfolio to ensure value chain benefit maximisation.	

especially at the Ghana Revenue Authority, has hampered the ability to enforce aspects of the fiscal regime, especially those dealing with corporate income and windfall taxes. This is **compounded by the overly generous tax incentives and cost recovery schemes** (inability to monitor and audit costs effectively), inability to conclude tax audits and the lack of institutional coordination and collaboration with other petroleum agencies. The estimation of surface rentals exemplifies how the lack of institutional collaboration and coordination hampered regulatory quality in the upstream sector, leading to companies not only self-assessing but under-declaring the surface rental payments. **NOC Operations** ○ **GNPC:** GNPC, the national oil company, has been the second-highest recipient of oil revenues with US$2.0 billion, comprising Equity Finance (Level A) and 30% of net proceeds (Level B) for the period 2011 and 2020. However, GNPC has come under considerable criticism over the past decade for undertaking several quasi-expenditures instead of focusing on its core mandate as enshrined in the Ghana National Petroleum Corporation Act, 1983 (PNDCL 64). That is, excessive political interference at the Cooperation means that it is often used as a 'cash-cow' by the government, for example, to finance and undertake politically motivated projects. Nevertheless, The Corporation is of the view that some of these expenses fall into its broader developmental mandate as defined in PNDCL 64, which includes undertaking activities that benefit the citizens of Ghana.		

(2) Revenue allocation, distribution, and utilisation (spending the resource wealth)		
Research findings and key impacts on petroleum revenue in Ghana	**Recommendations**	**Responsible Agency**
Revenue Management, sustainable development policies and projects ○ **Thin spread of ABFA:** ABFA has been spent on seven (7) out of the twelve (12) priority areas specified under the PRMA, with Roads, railways, and other infrastructure accounting for 53.51% of total ABFA allocations between 2011 and 2020. The **PRMA falls short of prescribing the exact specifics or definition of these 12 areas, leaving room for conflation and potential abuse** by the political leadership of the day. For example, what qualifies as capital expenditure needs to be well-defined, especially given some allocations of portions of ABFA education spending into the government's flagship Free SHS, classified as capital expenditure instead of recurrent expenditure. ○ Significant inefficiencies are **hindering ABFA utilisation** and its ability to meet the objectives defined under the PRMA to maximise the rate of economic development and enhance well-being. Ghana's underlying political settlements regime and macro-fiscal factors, including the PFM system, further compound these inefficiencies with ABFA use. ○ **The root causes and drivers of inefficiencies with ABFA are driven by four broad factors**: poor allocations and disbursements, poor project implementation, weak reporting, and weak auditing and accountability.	**ABFA project prioritisation and project selection** 7. **We advocate for official public criteria to guide the technical prioritisation of ABFA projects the Ministry of Finance and beneficiary MDAs.** This criterion should demonstrate how projects will be linked to the desired outcomes for spending ABFA, namely: (1) maximise the rate of economic development; (2) promote equality of economic opportunities to ensure citizens' wellbeing; (3) ensure even and balanced development of the regions; and (4) guided by a medium-term expenditure framework (MTEF). In other words, the **selection of ABFA priority areas the Minister of Finance should be guided by guided by evidenced based justification and criteria to ensure the selection leads to the intended objectives of ABFA as specified in the law**. To achieve this, the PRMA must be amended correspondingly. 8. **In collaboration with beneficiary ministries and other relevant stakeholders, the Ministry of Finance should collectively develop this criterion for the access of ABFA funds.** The **criteria must be binding** and are expected to ensure that ABFA projects selected by beneficiary Ministries have answered the following questions: h. Projects should be ranked based on four simple criteria: **i. Rationale:** 1. Should the public sector do this, or can the private sector adequately undertake the activity? 2. Does the project target the poor? **ii. Cost-effectiveness:** 1. For the output of the project, has the least-cost alternative been identified?	Ministry of Finance Other MDAs

	2. Are multi-year implications laid out, and is the project likely to be self-financing after completion? **iii. Benefit-cost (including identification of beneficiaries):** 1. Have benefits (e.g., social, financial) been quantified? 2. Do benefits exceed costs? **iv. Risk and mitigation:** 1. Is the project likely to be completed on time? 2. Have allowances been made to address potential physical and financial contingencies? 3. Are there institutional/managerial/technical constraints in carrying out the project? 4. Are there any environmental risks? **v. Robust and transparent procurement of projects selected under ABFA** **vi. Clear coordination between national and subnational during project preparation** **vii. Robust monitoring and evaluation framework** 1. Does the project have robust monitoring and evaluation framework that is well costed? 9. **A more comprehensive and decentralised project preparation, planning and monitoring process is needed to ensure ABFA projects are strictly monitored and delivered on time.** District Assemblies should be actively involved in selecting and implementing projects in their jurisdictions to ensure that projects are priority projects and in line with the medium-term development plans of the Assemblies.	Other MDAs

	ABFA allocation and disbursement 10. To improve effective disbursements of ABFA, **all beneficiary MDAs must be required to prepare ABFA projects, complete procurements, and ensure clear projects are ready for disbursements** before they qualify to be funded by ABFA 11. **Strengthen internal coordination between the Ministry of Finance (Public Expenditure Management Unit) and beneficiary Ministries** to enhance enforcement of funding allocations between capital expenditures and other expenditures as provided in the Act. Allocation of ABFA funds must be continuous and consistent to see to project completion. 12. **Amend the PRMA to provide a legal requirement for enhanced transparency and effective accountability for unutilised ABFA balances**. Where applicable, create an ABFA fund to ensure unutilised amounts are reverted to that Fund **ABFA implementation** 13. **The Ministry of Finance must ensure that ABFA projects are accompanied by a robust monitoring and evaluation plan that includes** disaggregated responsibility between national and subnational structures to enhance supervision and monitoring of projects. **ABFA reporting and audit** 14. **ABFA reporting by the Ministry of Finance and PIA must be expanded** to include the share of ABFA allocation to projects, details on other counterpart funding, details of contractors responsible for projects and supervisors responsible for ABFA funded projects 15. **It is trite ten years since first oil to undertake a special audit of ABFA funds.** The audit should also focus on sectoral allocations aligned with the PRMA and the PFM Act. The	Auditor General Ministry of Finance PIAC

	special audit will be a joint institutional effort led by the Auditor General and supported by PIAC	
(3) Management of the Ghana Petroleum Funds (spending the resource wealth/saving for a rainy day)		
Research findings and key impacts on petroleum revenue in Ghana	**Recommendations**	**Responsible Agency**
○ **Low overall fund returns:** The lack of a clearly defined investment policy has constrained the ability of Fund Managers to earn higher returns on the GPFs, especially for the Heritage Fund. These delays were also compounded by the non-constitution of the Investment Advisory Committee (IAC) in some years. ○ The Investment Advisory Committee's (IAC) did not meet regularly as per the requirements of the PRMA over the ten-plus year period. This is highlighted in the 2018 Auditor-Generals' report on the management of petroleum funds and in various PIAC reports. Also, the IAC's website is dated (not current). ○ The content of the investment policy governing the management of the Ghana Petroleum Funds has now been clarified under Section 15 of L.I. 2381, which is a positive development. However, the benchmark portfolio and desired returns and associated risks are yet to be developed. **Heritage Fund** ○ **Low and volatile GHF returns:** Monies in the GHF are invested outside Ghana in low-yielding safe investments, commensurate with the **risk appetite or profile specified within the PRMA**. Nevertheless, returns from the GHF have been small and more volatile than GSF returns. This calls for a rethink of the investment strategy of the GHF (and even the GSF) more so given that Ghana continues to grapple with	16. As a matter of priority, the Minister for Finance should **forward to Parliament for approval the long-delayed investment policy** for the overall management of the Ghana Petroleum Funds, which was drafted by the IAC and approved by the Minister in 2020. 17. The **Minister of Finance, in collaboration with the IAC, must prioritise fast-tracking the development of the benchmark portfolio and desired returns and associated risks for the Ghana Petroleum Funds**. The ministry has made commendable efforts to prepare an updated draft Operations Management Agreement (OMA) with the Bank of Ghana (BoG); however, incorporation of the "Business Plan" in the OMA, which would allow BoG (the Fund manager) to move asset allocation from 100% treasuries to a more balanced portfolio that includes equities and alternative assets, is still pending. 18. The **IAC must update its website with more current information** and reports.	IAC Ministry of Finance Bank of Ghana

significantly rising inequality, poverty and high debt-to-GDP challenges. ○ The GHF, just like the GSF, has also been **the subject of controversy over the years, with various organisations, academics, and political figures leading calls for the monies saved in the GHF to be used to meet current consumption** as the returns from the fund is very low. **Stabilisation Fund** ○ **Issue of capping to serve domestic political economy priorities**: The Minister of Finance is given discretion, subject to Parliamentary approval, to cap how much can be accrued to the GSF every year. This discretion has been utilised often without any rigorous evidence base; the cap has been reviewed several times since the PRMA was passed. This has been done most often by lowering the cap, and the amount over the cap subsequently transferred predominantly for debt servicing. To curtail the arbitrariness in determining the CAP of the GSF, the Petroleum Revenue Management Regulations, 2019 (L.I. 2381) now provides more clarity on how the CAP is to be determined ○ **Debt servicing fuelling appetite for borrowing:** 74% of the withdrawals from the GSF have been used for debt repayment, 21% have been allocated to the Contingency Fund to deal with national emergencies such as the COVID-19 pandemic. Interestingly, only 4% was utilised to shore up ABFA shortfalls. These debt repayments are symptomatic of developments within the Ghanaian economy over the past decade: low domestic revenue mobilisation and increased interest payments have occasioned excessive borrowing (both domestically and externally) to meet budgetary shortfalls.		

Annexures

A1 — Key stakeholder institutions and individuals consulted

The key stakeholder institutions consulted include, but are not limited to:

Government [Ministries, Departments and Agencies]	• Ministry of Energy • Ministry of Finance • Investment Advisory Committee (IAC) • Bank of Ghana • Petroleum Commission • Ghana Revenue Authority • Ghana Audit Service • Ghana Extractive Industry Transparency Initiative (GHEITI) • PIAC Secretariat and Former Members
Oil and gas companies	• Ghana National Petroleum Corporation (GNPC) • Tullow Oil Ghana Ltd.
Academics and independent analysts	• Hon. Seth Terkper (Former Minister of Finance, Ghana) • Dr. Joseph Asenso (Former Head of the Oil and Gas Unit, Ministry of Finance) • Dr. Ishmael Ackah (Former Head of Policy, ACEP & Former Technical Advisor to Minister of Planning) • Dr. Ali Nakyea (University of Ghana) • Shafic Suleman Osman (University of Cape Coast Oil and Gas Institute) • Prof. Godfred Bokpin (University of Ghana)
CSOs	• Mr. Ben Boakye (Africa Centre for Energy Policy: ACEP) • Mr Franklin Cudjoe (IMANI Centre for Policy and Education) • Dr. Steve Manteaw (The Civil Society Platform on Oil and Gas: CSPOG)
Media organisations	• CitiFM – Bernard Avle • Offshore Africa Magazine – Gilbert Da-Costa

A2 — Documents reviewed

The consultants reviewed number of sources of information to help in the delivery of the report. This included the following:

i. PIAC Annual and Semi-annual Reports on Petroleum Revenue Management
ii. Policy briefs produced by PIAC on specific topical areas on revenue management
iii. Petroleum Revenue Management Act 815 2011 and its amended version Act 893
iv. Petroleum Revenue Managemen Regulations, 2019 (L.I. 2381)

v. Petroleum Exploration and Production Act 2016
vi. Earmarked Funds Capping and Realignment Act 2017 (Act 947)
vii. Ghana Infrastructure Investment Fund Act 2014 (Act 877)
viii. Ghana Infrastructure Investment Fund Amendment Act 2021 (Act 1063)
ix. Income Tax Act 2015 (Act 896)
x. Ghana National Petroleum Corporation Act, 1983 (PNDCL 64)
xi. Petroleum Commission Act, 2011 (Act 821)
xii. Petroleum Income Tax Act, 1987 (PNDCL 188)
xiii. Public Financial Management Act, 2016 (Act 921)
xiv. Public Financial Management Regulations, 2020 (L.I. 2411)
xv. State Enterprises Commission Law, 1987 (PNDCL 170)
xvi. Regulations and policy documents published by Petroleum Commission
xvii. Local content and Local Participation regulation
xviii. Annual Report on Petroleum Holding Fund issued by Ministry of Finance
xix. Successive Budget and government policy statements relevant for the assignment
xx. Reconciliation Reports produced by Ministry of Finance Petroleum Holding Fund
xxi. Auditor General's Report on Petroleum Revenue Management
xxii. Bank of Ghana reports on Performance of Ghana Petroleum Funds
xxiii. EITI reports on oil/gas sector
xxiv. Ghana Beyond Aid document
xxv. Sector policy documents including medium term plans and expenditure frameworks

A3 — Infographic Representation of PIAC Member-Institutions

Ghana National Chamber of Commerce and Industries/ Association of Ghana Industries

Ghana Extractive Industry Transparency Initiative

Trades Union Congress

Civil Society Organisations and Community-based Organisations

Ghana Journalists Association

Ghana Bar Association

Institute of Chartered Accountants, Ghana

Ghana Academy of Arts and Sciences

Independent Policy and Research Think Tanks

National House of Chiefs

Queenmothers Association of Ghana

Christian Groups

Muslim Groups

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