ACEP
Africa Centre for Energy Policy

ACEP Analysis of the 2021 Budget

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ABBREVIATIONS

MMSCF	Million Standard Cubic Feet
ABFA	Annual Budget Funding Amount
ASM	Artisanal and Small-Scale Mining
BSCF	Billions of Standard Cubic Feet of Gas
BCF	Billion Cubic Feet
CAPI	Carried and Participating Interest
PRMA	Petroleum Revenue Management
BBL	Barrel of Crude Oil

INTRODUCTION

ACEP's analysis of the 2021 national budget focuses on the oil and gas, mining and power sectors of Ghana. On the oil and gas sector, the analysis reviews petroleum production and gas exports, and petroleum revenue receipts and utilization for the 2020 fiscal year. The analysis further discusses projected ABFA receipts and utilization for 2021. For the mining sector, the analysis focuses on intended Government actions in the budget towards addressing challenges with ASM, management of mineral revenue and optimizing industrial minerals and metals to contribute to the economy. The power sector analysis focuses on payment of excess capacity charges, importation of Liquified Natural Gas (LNG), power transmission and distribution challenges, and renewable energy generation challenges.

OIL AND GAS

Production for 2020

Oil production reduced from 71.4 million barrels in 2019 to 66.91 million barrels in 2020. Gas export[1] for power and non-power uses increased by 64 percent (from 54.06 Bscf to 88.42 Bscf in 2020). The significant increase in gas utilisation is attributable to the growth in gas demand for power generation. This is due to the improvement in gas infrastructure such as the relocation of the Karpowership power plant from Tema to Secondi and the conversion of most power plants from utilising liquid fuels to gas. However, about 64% of gas produced in 2020 was not utilised. In the case of Sankofa gas, where the gas is contracted on a take or pay basis, 13,784.71 mmscf of gas produced was unutilised resulting in the continuous payment for unutilised gas. This creates significant pressure on the budget to account for take-or-pay commitments. Sankofa makeup gas remains unutilised since 2018 even though it has already been paid for. With Nigeria gas becoming relatively stable in recent times to complement local gas production, Government's decision to go ahead with LNG importation would only result in excess gas supply. This will further burden the already constrained gas sector.

Table 1: Oil production and gas exports as at the end of 2020

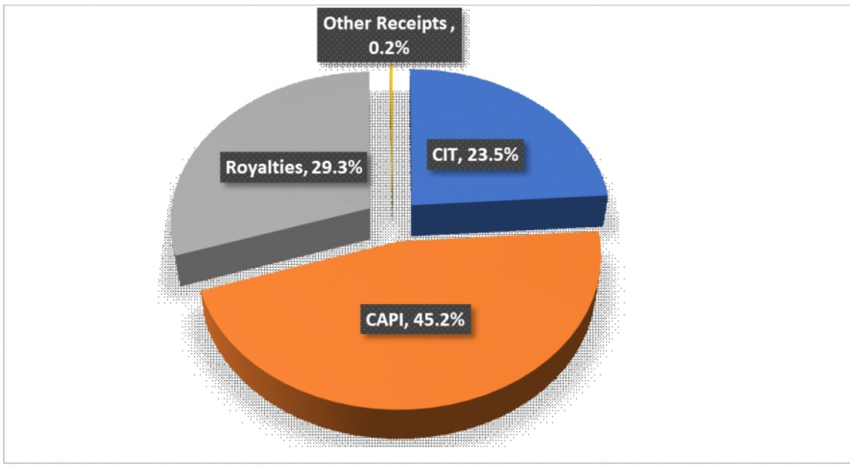
Fields	Oil Production (million barrels)	Gas Production (mmscf)	Gas Exports (mmscf)
Jubilee	30.42	64,462.41	26,416 (41%)
Ten	17.80	58,674.67	5,545 (9%)
Sankofa	18.68	70,355.70	56,459 (80%)
Total	**66.91**	**193,492.75**	**88,419 (46%)**

[1] Gas exports is the volume of gas that is transported from the producing fields for consumption.

Petroleum Receipts for 2020

The total petroleum receipts for 2020 amounted to $666.39 million (GHS3,838.54 million). Of this amount, $300.93 million was from Carried and Participating Interest (CAPI), $195.36 million from royalties, $168.77 million from Corporate Income Tax (CIT), and $1.34 million from other receipts (surface rentals, PHF income, penalties).

Figure 1: Petroleum receipts for 2020



Petroleum receipts for 2020 significantly decreased from the previous year's figure of $937.58 million by about 28 per cent. The reduction in receipts resulted from a significant decrease in oil prices and production volumes, mainly caused by the impacts of the Covid-19 pandemic. By March 2020, crude oil price was $22.9 per barrel, significantly lower than the benchmark price of US$62 per barrel. Therefore, Government revised its initial projected petroleum receipts for 2020 from US$1.57 billion to US$574 million in March 2020 and subsequently to US$660 million in the 2020 mid-year budget statement.

The analysis of the petroleum revenue projections and actual receipts show a shortfall of about US$900 million. However, the Ghana Stabilisation Fund (GSF), established to smoothen the Annual Budget Funding Amount (ABFA), could not mitigate this shortfall since it had an inadequate buffer because of its consistent low capping.

Additionally, companies continue to default on surface rental payments, particularly from poor-performing petroleum agreements. Bank of Ghana's assessment of arrears between 2014 and 2020 shows surface rental arrears of about $2.2 million (See Table 2).

Table 2: Surface rental arrears as of December 2020

	Operator	Arrears (US$)
1	Medea Development	64,462.41
2	Heritage (GOSCO)	58,674.67
3	Sahara Energy Fields Ghna	70,355.70
4	Eco Atlantic	193,492.75
5	Britania - U	657,708.33
6	UB Resource	67,665.58
7	Swiss Africa Oil Company Limited	712,500.00
8	ExxonMobil	30
	Total	2,234,115.51

Petroleum Revenue Distribution 2020

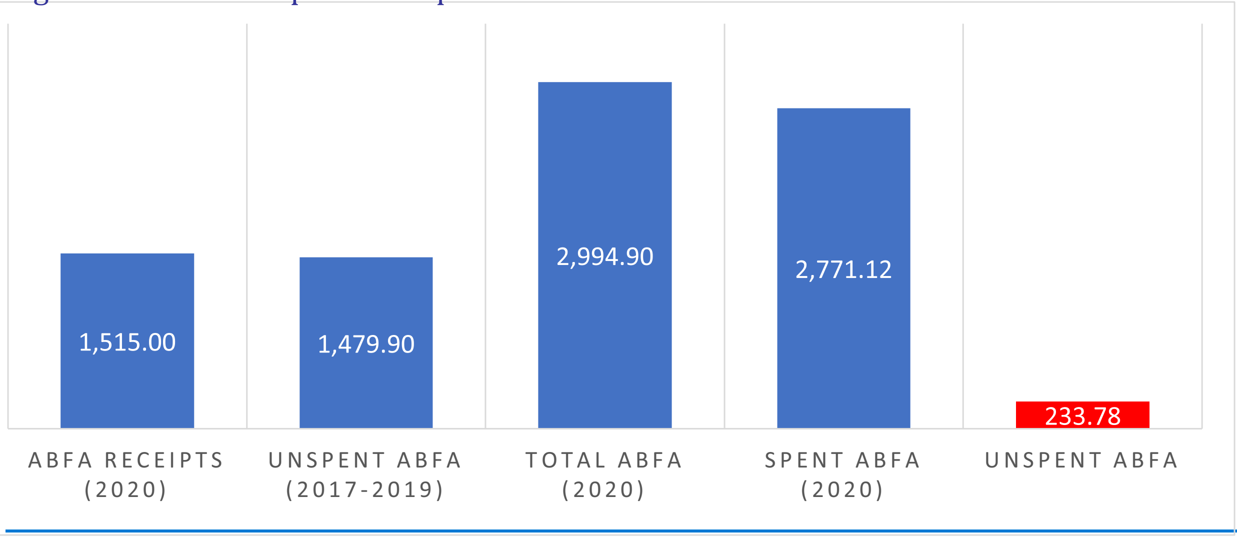
Total petroleum revenue receipts for 2020 was US$ 666.39 million. As of the end of 2020, a total of US$638.64 million was disbursed among Ghana National Petroleum Corporation (GNPC), the Ghana Stabilisation Fund and the Ghana Heritage Fund (collectively known as Ghana Petroleum Funds), and the Annual Budget Funding Amount (ABFA) in accordance with the Petroleum Revenue Management Act. About US$27.75 million remains outstanding in the Petroleum Holding Fund (PHF).

GNPC received a total of US$198.65 million in 2020, out of which US$154.82 million was for its Equity Financing Cost and US$43.83 million as its share of net CAPI. The Minister of Finance had proposed to cut GNPC's share of net CAPI from 30 percent to 15 percent. However, actual disbursement to GNPC as its share of net CAPI remained 30 percent for 2020. ABFA received US$273.38 million and the remaining amount of US$166.61 was disbursed to the Ghana Petroleum Funds.

ABFA Utilization For 2020

The cedi equivalent of the realised ABFA for 2020 is GHS 1.515 billion. For the first time, the budget accounted for the utilisation of the three-year balance of GHS1.479 billion even though it was not programmed in the 2020 budget and its subsequent revisions. This yielded a cumulative ABFA of GHS2.994 billion for the 2020 fiscal year. The budget accounts for total expenditure of GHS 2.771 billion leaving an unutilised amount of GHS 223 million.

Figure 2: ABFA Receipts And Expenditure at the End of 2020

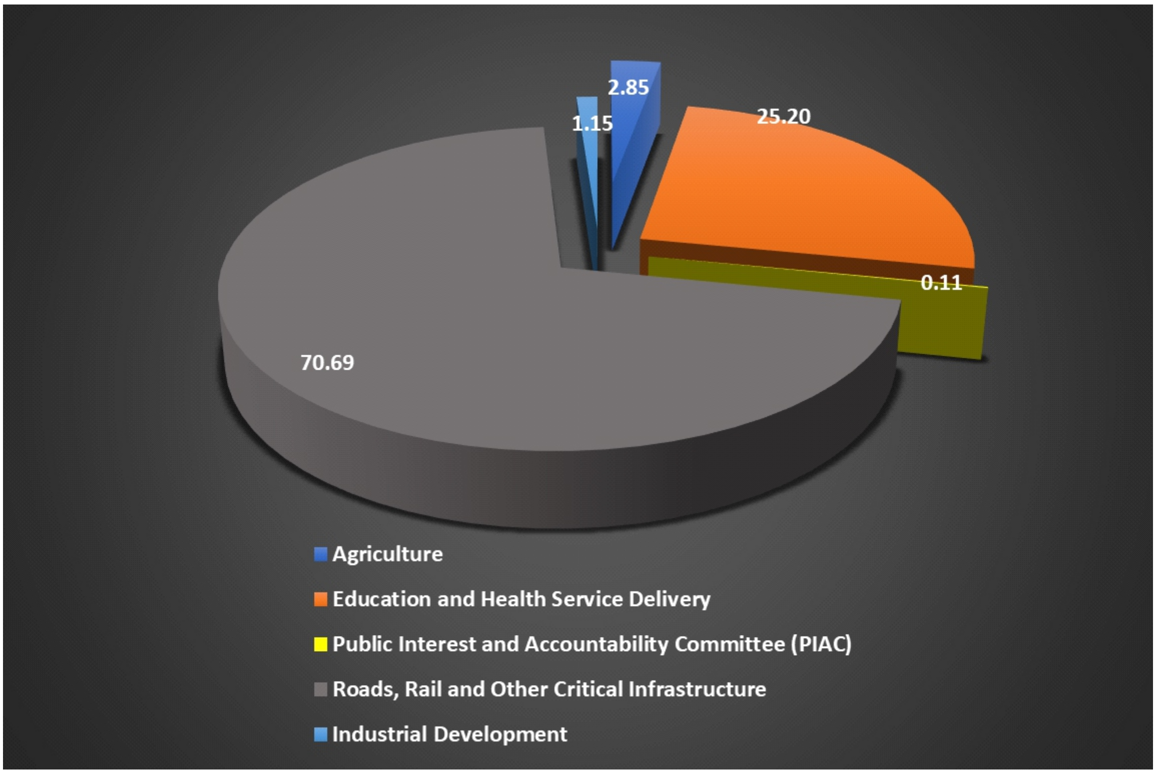


The PRMA requires the Minister of Finance to prioritise up to four sectors for ABFA utilisation every three years. However, the minister failed to outline the priority areas in line with the Act when it was due in 2020. Rather, 15 Ministries, Departments and Agencies (MDAs) were listed as beneficiaries of ABFA. Interestingly, in accounting for ABFA utilisation for 2020, Government reported four priority areas; Agriculture, Education and Health Service Delivery, Industrial Development, and Roads, Rail and other Critical Infrastructure. This creates

significant conflict between the Appropriation Act and the PRMA as the 2021 budget failed to clearly account for actual ABFA expenditures for all the 15 MDAs stated in the 2020 budget.

The roads, rails and other critical infrastructure received the highest ABFA allocation of GHS1,958.97 million accounting for 70.6 percent of total ABFA disbursement. The education and health service delivery sector received GHS698.24 million (25.2 percent) followed by GHS79.02 million (2.85 percent) on agriculture. Industrial development received the least at GHS31.80 million representing 1.15 percent

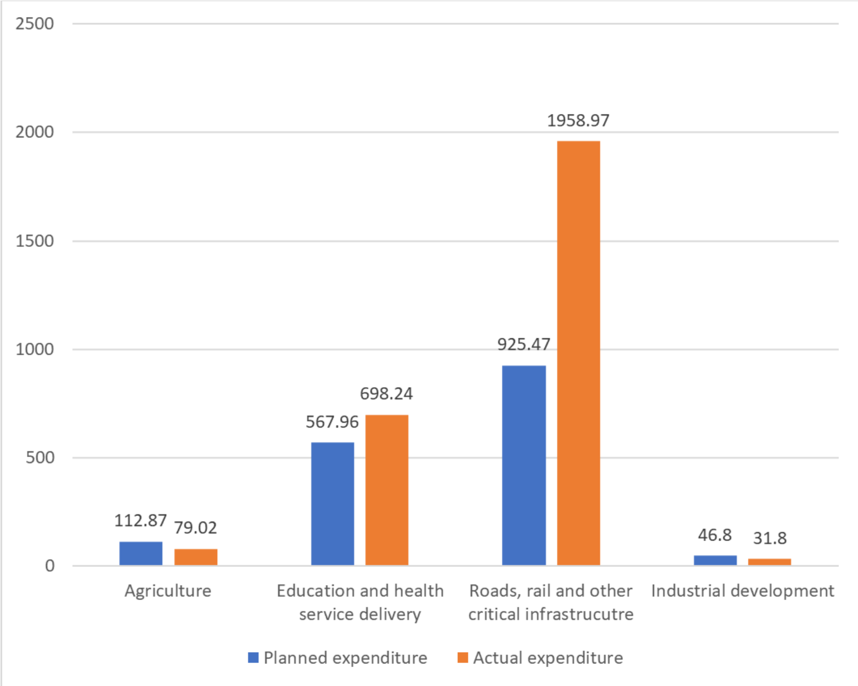
Figure 3: Percentage of ABFA utilised for 2020 according to priority areas



The budget shows that 22 percent of the projected ABFA was not realised. The total projected ABFA was GHS1,656.19 million against realised ABFA of GHS1,291.22 million. At the same time, the shortfall for disbursement to the agriculture was GHS33.85 million which represents about 30% of projected ABFA expenditure for the sector. This shortfall could have been met with the ABFA unspent balance of GHS223.7 million.

Over the years, the Minister has considered education and health as separate ABFA priority areas. However, in accounting for ABFA expenditure for 2020, expenditure of these two sectors were lumped making it difficult to isolate the specific amount spent on each sector. The petroleum report, which is usually published with the budget, would have provided additional information to help ascertain how much was spent on each sector. Unfortunately, the Ministry is yet to publish the 2020 petroleum report on its website.

Figure 4: 2020 Planned and actual ABFA expenditure according to priority



Projected Petroleum Receipts 2021

The total projected petroleum revenue for 2021 is US$885.7 million based on a benchmark price of US$54.75/bbl. Out of the projected amount, US$283 million is allocated to GNPC for its Equity Financing Costs and its Share of Net CAPI. This leaves a benchmark revenue of US$602.7 million of which US$ 421.89 million is allocated to the ABFA and US$180.81 to the Ghana Petroleum Funds. Similar to 2020, the Government plans to spend the 2021 ABFA receipts on programmes and activities of 13 MDAs and the Ghana Infrastructure Investment Fund (GIIF) and District Assemblies' Common Fund (DACF).

It is commendable that Government complied with the 2019 Supreme court ruling to disburse not less than 5 percent of ABFA receipts to the DACF. For this year, the Government plans to disburse an amount of GHS129,255,066 representing 5 percent of projected total ABFA allocation. By law, the minister is allowed to allocate up to 25% of ABFA to GIIF. In the 2021 budget, an amount of GHS361,914,186 representing about 14% of total ABFA for the year was allocated to GIIF.

Recommendations

1. The minister should comply with the requirements of the PRMA by clearly outlining the three-year expenditure programme/priority areas. This is to forestall ABFA spending on different sectors year on year as in the case of 2020 and 2021 ABFA expenditure.
2. The Government should ensure that it disburses the full ABFA earmarked for the Agriculture sector. The Government should further take steps to significantly increase he ABFA allocated amount to the sector to ensure the sustainable development of the sector.
3. The priority for Ghana must be the optimization of its domestic gas and the suspension of LNG importation plans. This will save the nation from incurring excess capacity charges, reduce the take-or-pay commitment, reduce pressure on the budget and provide incentives for investments in domestic gas resources.

POWER SECTOR

Payments for Excess Capacity Charges

Over the past four years, Government has consistently indicated that it is reviewing the PPAs that occasioned the excess capacity charges with the objective of reducing the associated payments. The lack of transparency so far in the renegotiations have produced avoidable consequences. In 2018, the attempted novation of the AMERI contract to Mytilineos almost resulted in an additional total cash flow of US$825 million (discounted value of US$270 million). This year, Ghana was hit with a judgement debt of about US$160 million resulting from the termination of the power agreement between Ghana and GPGC Ltd. In the face of these realities, government should not continue to hide the renegotiations.

It is noted that government borrowed US$1 billion in 2020 as part of the US$ 3 billion Eurobond issue to support the Ghana Infrastructure Investment Fund (GIIF) to refinance the renegotiated Power Purchase Agreements (PPA). This borrowing created an impression that government had concluded on the renegotiation for which the US$1 billion debt was procured.

Interestingly, government indicates in the budget that it is still renegotiating the PPAs a year after the Eurobond issue.

This raises significant concerns about the definite timelines for the renegotiations and the cost implications for the delays. After one year, the interest payments on the US$1 billion bond amount to about US$80 million. If negotiations delay till the end of 2021, an additional US$80 million will be paid, bringing the total interest payments to about US$160 million for no work done.

Recommendations

1. Government should be transparent about the never-ending negotiations of PPAs. The Ghanaian public deserves to know the term sheets of the renegotiated agreements before a final decision is made, particularly with the hindsight of two renegotiated agreements that have gone wrong.

Government's Solution to the Energy Sector Challenges

In 2015, Government established Energy Sector Levies Act (ESLA) to among others facilitate sustainable long-term investments and recover debts in the energy sector. In 2016, the energy sector debt was about US$2.6 billion out of which half was paid by mid 2018. However, in 2017 and 2018 an additional debt of about US$1.4 billion was generated, yielding an accumulated debt of about US$2.7 billion.

This is projected to increase to about US$12.5 billion in 2023 if the rate of the debt accumulation is sustained. This increment is mainly contributed by revenue shortfalls in the power sector arising from commercial, transmission and distribution losses as well as excess generation capacity charges. Gas sector shortfalls arising from excess domestic supply and commitment to LNG compound the energy debts.

In the 2021 budget, Government has proposed an additional Energy Sector Recovery Levy of 20 pesewas per litre on petrol and diesel under the ESLA. This increase will yield about US$137 million per year based on total petrol and diesel consumption of about 3.98 billion litres in 2020. The budget also forecasts energy debt recovery levies to grow from GHS1.6 billion (US$281 million) in 2020 to GHS3.1 billion (US$ 464 million) in 2024. The rate of debt accumulation therefore makes it impossible for ESLA to address the energy sector financial challenges.

This further shows that the additional levy would be insignificant to offset the energy sector debts. Government's approach to solving the energy sector debts should not be a matter of imposing additional levies on the consumer but fixing the fundamental causes of shortfalls in the power and gas sectors.

Recommendations

1. The Government should focus on resolving the challenges of transmission, distribution and commercial losses in the power sector rather than imposing additional taxes on energy consumers.
2. The Government must provide information on the excess capacity based on the declared availability for each of the plants for which excess capacity charge is paid. This would improve the credibility of the Government's claims on how much is paid for excess capacity.

Power Transmission

The National Interconnection Transmission System is significantly constrained by under investment. This has resulted in the continuous use of weak and obsolete infrastructure which constantly causes transmission losses, voltage problems and power cuts. The planners of the power sector have consistently highlighted critical upgrades and additions required to meet transmission reliability benchmarks. The 2020 electricity supply plan for example details the critical transmission infrastructure that needs investments to maintain a robust transmission system. These include;

- Upgrade of 161kV Aboadze-Takoradi-Tarkwa-Prestea
- Construction of a second 330 kV Prestea - Dunkwa – Kumasi line
- Upgrade of 161kV Aboadze-Mallam transmission lines 161 kV Mallam – A4BSP transmission line link
- Construction of a second 330 kV Aboadze – A4 BSP circuit
- Construction of a double circuit 330 kV line from A4BSP to Kumasi
- Construction of a 330 kV substation at Dunkwa with a link to the existing 161 kV substation

The 2021 budget reports on the progress of work on a number of transmission infrastructure across the country including the construction works on the Pokuase Bulk Supply Point. However, it does not make provision for investment in the critical transmission projects outlined in the 2020 electricity supply plan. Building a robust transmission system that ensures that the constant transmission losses, voltage and power cuts challenges are resolved requires significant investment in these critical projects to retool the sector. This does not appear to be the focus of Government in the 2021 budget since it missed out on providing for these investments.

Recommendations

1. Ongoing upgrade works should be expedited to relieve power consumers of the frequent outages and low voltage currently being experienced.
2. The fiscal position of Government makes it difficult for the budget to continue to sustain investments in the transmission system. The Government should in the short term, make available some parts of the ESLA proceeds for investment in critical equipment in the transmission system.
3. As a more sustainable approach to tackling the problems in the transmission sector, Government should immediately revert to a transparent process to attract private sector participation into the distribution sector to raise adequate revenues for better management of the power sector.

Renewable Energy Generation

The 2021 budget reports on a number of Government interventions to scale up renewable energy in Ghana. These include:

- 19.8MW VRA Solar Project in Lawra and Kaleo in the Upper West Region
- 50MW Bui Power solar project
- 912kWp solar project at the Jubilee House
- 45KW mini-hydro power plant delivered at Alavanyo in 2020

While these efforts will contribute to the renewable energy generation targets of the country, the scale is not enough to significantly accelerate the attainment of the targets within the projected time frame. Ghana has consistently defaulted on its targets for renewable energy in the national energy supply mix. The Strategic National Energy Plan (2006 -2020) projected a target of 10 percent renewable energy in the national energy supply mix by 2020. By the end of 2020, renewable energy generation was less than one percent of the energy supply mix. As a result, the 2020 timeline to achieve the 10 percent target was revised to 2030.

Achieving the renewable energy targets would require increased and sustained investments in renewable energy. Unfortunately, Government's suspension of PPAs in the power sector as a result of the excess capacity challenge has hindered the penetration of renewable energy in the national energy supply mix. It is also disturbing that the Government has extended the Commented [Ma5]: Although this point provides alternative sustaining investments in the transmission system aforementioned, why not consider it standing alone as a separate point since it focuses on PSP 10 suspension of PPAs and the issuance of renewable energy licenses for private businesses for embedded generation.

Recommendations

1. Government should immediately lift the suspension of PPAs for renewable energy generation and the issuance of licenses for embedded generation. In the interest of climate action and the energy transition, the Government should encourage the penetration of renewable energy instead of impeding it.

MINING SECTOR

Artisanal and Small-Scale Mining

The 2021 Budget Statement indicates the passage of the Minerals & Mining Regulations 2020 (L.I. 2404) to improve monitoring of machines and equipment at mine sites, simplify the license acquisition by introducing e-services, and deploy the use of drones and customized software to enhance monitoring. ACEP recognises that these interventions can effectively address challenges of weak enforcement by relevant institutions and the perceived complexities of licensing processes. However, the provisions in the regulations may prove ineffective in addressing the underlying factors that propagate illegal small-scale mining if there are institutional weaknesses in monitoring the sector.

Recommendations

1. The Minerals Commission must roll out modalities for operationalizing L.I. 2404, which targets monitoring machines and equipment used at mine sites. The development of the modalities must integrate stakeholder engagements with entities such as Local Management Committees of the Mining Community Development Scheme and ASM actors in the communities. This intervention is essential to curtail illegal operations of foreign actors who are primarily responsible for using heavy machinery in ASM operations, further resulting in adverse environmental impacts.
2. The Ministry of Finance and the Ghana Revenue Authority must consider introducing a flat rate tax that links taxation to participation rather than output to counter the financial incentives offered by neighbouring jurisdictions. For instance, GRA could go back to implement an MoU it drafted with the Ghana National Artisanal and Small-Scale Miners (GNASSM) to apply the GHS500 quarterly payments.

Optimizing Contribution of Industrial Minerals and Metals to The Economy

The budget indicates that Ghana Integrated Aluminium Development Corporation (GIADEC) will ramp up production after securing licenses to begin prospecting two new bauxite hills in the Awaso area to increase inputs for a new bauxite refinery which is yet to be constructed. Also linked to the bauxite industry is the intended revamping of the Volta Aluminium Company (VALCO), to which GHS100 million was released to support the company's working capital requirements. However, VALCO has continually recorded negative operating capital, about GHS183.7 million, GHS 264.9 million and GHS408.5 million from 2016 to 2018. It has also recorded net losses from 2015 to 2018 of about GHS92.9 million, GHS105.7 million, GHS107.4 million and GHS153.6 million, respectively. [2]

VALCO currently operates at about 20 per cent of its 200,000-tonne capacity, unable to enjoy economies of scale compared to global smelters. It also faces other challenges, including the erratic supply and high cost of power, rendering it unprofitable. According to the 2018 State Ownership Report, VALCO procures power at $0.05 per kWh. Thus, VALCO finds itself in the upper limit of the global range of power costs of between $0.02 to $0.05 per kWh for smelters. VALCO's problems in terms of its inability to optimize its capacity are well known. However, Government has only indicated the release of GHS100 million to complement its working capital requirements with the assumption that this will attract investors to provide additional funding to make the smelter economically viable.

[2] State ownership reports 2017 and 2018.

This intervention does not address the technological and capital investment challenges facing the smelter. Government must prioritize the fundamental challenges of VALCO's inability to produce at full capacity and not necessarily inject revenue to support its working capital.

Recommendations

1. Government must evaluate and identify a more sustainable approach to modernize VALCO by injecting substantial investment into its capital expenditure.

Mineral Royalty Management

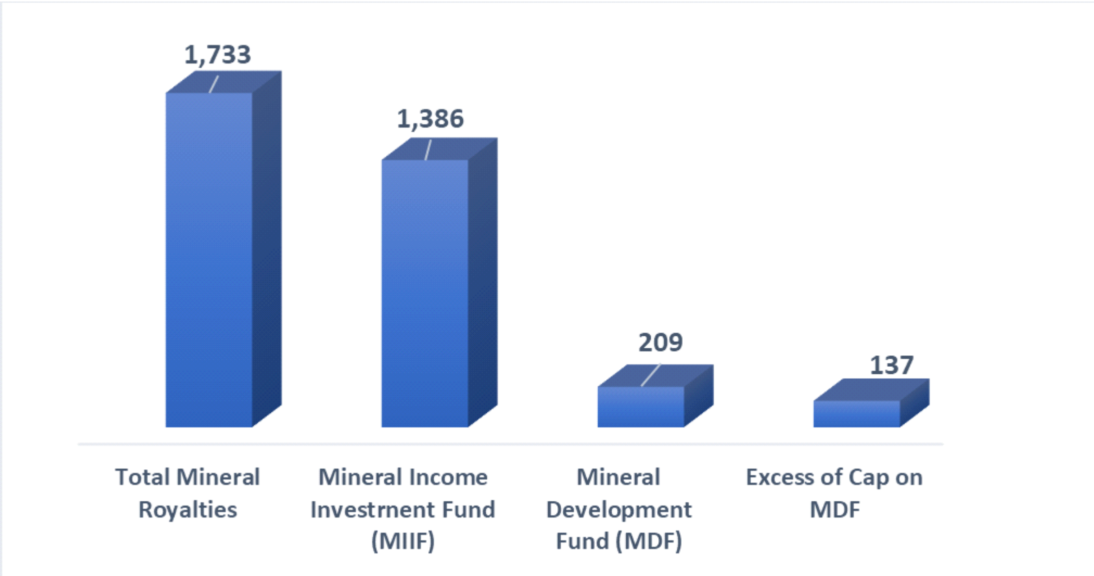
The 2021 budget reports that Government received about GHS1.38 billion from mineral royalties in 2020. This amount exceeded the revised budget target of GHS1.00 billion by about 37 per cent. This increase was due to production increments, stimulated by the surge in global gold prices in 2020. The Minerals Development Fund (MDF) received about GHS95.18 million representing about seven (7) per cent of the total mineral royalties for the year. Even though the Government realised about GHS380 million above mineral royalties projected, disbursement to MDF was still about 13 percentage points short of its required allocation. This low disbursement to MDF constrains sub-national development planning and implementation.

In 2021, the MDF's share of mineral royalties has been 12 per cent. Government expects to receive GHS1.73 billion (about US$300 million) from mineral royalties for 2021. Of the total mineral royalty, 12 per cent amounting to about GHS209 million (about US$36.7 million) has been allocated to MDF.

For the first time since its creation in 2018, the Mineral Income Investment Fund (MIIF) has been programmed to receive 80 per cent of mineral royalties amounting to about GHS1.39 billion (about US$243 million). The allocation of 80 per cent mineral royalties to MIIF indicates Government's intent to pursue the Agyapa Royalties deal. While Government is yet to introduce a revised Agyapa deal as promised by the President in his 2021 State of the Nation Address (SONA), the budget has already allocated mineral royalties as intended in the original Agyapa deal to MIIF in the medium term (2021-2024). This will deprive the Government of the budgetary support from the share of mineral royalties into the Consolidated Fund. Also, the MDF faces the threat of continuous low capping to free up resources to support the budget.

The allocation shows that MDF's share of mineral royalties has been capped at 12 percent instead of the 20 percent due the fund

Figure 5: Mineral Royalty Allocation for 2021 (GHS million)



Recommendations

1. Pass a Mineral Revenue Management Act to streamline revenue governance frameworks for the sector and ensure transparency and accountability in the sector. This Act must create a transparency and accountability institution akin to the Public Interest and Accountability Committee (PIAC) to ensure compliance with the provisions of the Act by responsible agencies.
2. The Government must rethink the Agyapa investment model and consider other investment models that can generate a better value and maintain the flexibility to control the industry's policy evolution.
3. Government must endeavour to develop Regulations for the implementation of the Minerals Development Fund Act, 2016 (Act 912).

Mining Leases

The 2021 budget mentions that Parliament has ratified 68 mining leases and the fact that Mineral Commission also intends to ensure timely ratification of mining leases in 2021. However, it is important that effective due diligence is not sacrificed for timely ratification of mining leases.

Public knowledge of fiscal terms agreed in Mining Leases is pertinent for enhancing the State's revenue take from mining operations.

Recommendation

1. The Minerals Commission must publish all mining leases in machine-readable formats on a publicly accessible portal to ensure monitoring, transparency and accountability

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