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NON-FISCAL REVENUE PATHWAY TO OPTIMIZING BENEFITS IN GHANA'S MINING SECTOR

Final Study/Research Report

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Contents

List of Acronyms and Abbreviations

ACET	African Center for Economic Transformation
AfCFTA	African Continental Free Trade Area
AGA	Anglo Gold Ashanti
AMV	African Mining Vision
ASM	Artisanal and Small-scale Mining
CAPEX	Capital Expenditure
CEDA	Centre for Extractives and Development, Africa
CEO	Chief Executive Officer
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
ECOWAS	Economic Community of West African States
EPA	Environmental Protection Agency
EITI	Extractives Industries Transparency Initiative
FDI	Foreign Direct Investment
GAS	Ghana Audit Service
GDP	Gross Domestic Product
GHEITI	Ghana Extractives Industries Transparency Initiative
GGSA	African Continental Free Trade Area
GIADEC	Ghana Integrated Aluminium Development Corporation
GIISDEC	Ghana Integrated Iron and Steel Development Corporation
GIPC	Ghana Investment Promotion Centre
GLSS	Ghana Living Standards Survey
GIZ	Deutsche Gesellschaft für International Zusammenarbeit GmbH German Agency for International Cooperation
GovID	Governance for Inclusive Development Programme
GRA	Ghana Revenue Authority
ICT	Information Communication Technology
KII	Key Informants Interview
LCVA	Local Content and Value Addition
LI	Legislative Instrument
LSM	Large Scale Mining
LUSPA	Land Use and Spatial Planning Authority
MDF	Minerals Development Fund
MIIF	Minerals Income Investment Fund
MMDAs	Metropolitan, Municipal and District Assemblies
MSG	Multistakeholder Group
NHIL	National Health Insurance Levy
NFSL	National Fiscal Stabilization Levy
OASL	Office of the Administrator of Stool Lands
PAYE	Pay As You Earn
PHVM	Presta Huni-Valley Municipal
PIAC	Public Interest and Accountability Committee
PMMC	Precious Minerals Marketing Company
PNDC	Provisional National Defence Council
PWD	Persons with Disability
R&D	Research and Development

SIGA	State Interests and Governance Authority
STE	Short Term Expert
STEP	Short-Term Expert Pool
STEM	Science, Technology Engineering and Mathematics
SWOT	Strength, Weakness, Opportunities and Threats
TC	Technical Cooperation
TLP	Training and Localization Plan
ToR	Terms of Reference
UNCTAD	United Nations Conference on Trade and Development
WRC	Water Resources Commission
1D1F	One District One Factory

Executive Summary

Study Objective

In Ghana's mining sector, stakeholder efforts have largely focused on maximizing fiscal benefits. Consequently, seldom efforts have been placed on exploring non-fiscal revenue pathways to optimize benefits in the sector. This study therefore sought to bring non-fiscal revenue issues to the fore by enhancing stakeholders understanding of the non-fiscal revenue pathways in the mining sector study. The study also assessed and documented the potential impacts and opportunities presented by non-fiscal revenues in the mining sector on Ghana's overall economy. The specific objectives of the study are as follows;

Maximizing Local Content and Participation

- Review theory and practice of the local content and local participation (as it forms the core of non-fiscal revenue pathways) regime in the mining sector.
- Review and identify existing local content and local participation gaps, including but not limited to legislative provisions and government policies
- Draw out the lessons learnt, the challenges faced, and methodological approaches to sustaining local content and other non-fiscal revenue pathways in the mining sector
- Propose recommendations and policy options for maximizing overall Ghanaian participation in the mining sector

Enhancing Gender and Youth Participation

- Identify various pathways for increasing youth participation in the mining sector
- Identify various pathways to achieving gender parity in the mining sector

Key Findings

Fiscal Revenues Pathways

The study identified that fiscal rent received from the sector includes PAYE, royalties, property rates, corporate taxes, business operating permits, among others. Consequently, fiscal revenues from the mining sector have remained a significant source of domestic tax revenues in Ghana for decades. The study showed that fiscal revenue pathways present government with reliable mineral rent, which is used to finance critical development projects and initiatives.

Non-Fiscal Revenue Pathways

The study identified the following LCVA policies in Ghana's mining sector, underpinned by provisions in LI 2431;

- Submission of localization plans by mineral right holders
- Reservation of unskilled and clerical/administrative roles in the sector for Ghanaians
- Introduction of specific employment quotas for expatriates
- The use of visa restrictions to advance Ghanaian participation in the sector
- Provision of list of goods and services that should be sourced locally

Gaps in Ghana's local content implementation includes

- Absence of gendered quota in Ghana's local content laws
- Absence of legally-mandated community development agreements to maximize benefits to host communities
- Policy inconsistencies and absence of favourable environment hindering local content practices in Ghana
- Lack of financing opportunities to promote local supplier development

Linkages between the Mining Sector and other sectors of the Ghanaian Economy

This section of the study explored and highlighted the forward, vertical and horizontal (potential) linkages of the mining sector and the overall Ghanaian economy. The study revealed that the mining sector has traditionally been viewed as an enclave sector with limited linkages with other critical sectors. The study concluded that the local economies of host communities, and the overall Ghanaian economy stands to benefit greatly if linked with the mining sector. Furthermore, with the right policy framework, AfCFTA also presents a unique opportunity for Ghana to leverage its extensive experience in the mining sector.

Achieving Inclusivity in Ghana's Mining Sector

The study showed that women, youth, PwDs and other marginalized groups continually face a variety of barriers in Ghana's mining sector, including;

- Impact of historical exclusion of women, youth and persons with disabilities
- Women and PwDs underrepresentation in sector-relevant academic programs at second-cycle and tertiary levels
- Limited advancement opportunities in the sector for vulnerable groups
- Low economic capital to participate in mining sector local content and beneficiation policies
- Unfavourable working environment

Key Recommendations

Optimizing Non-Fiscal Revenue Benefits

- Conduct an annual review of the procurement list to ensure that the list responds to the manufacturing capabilities of local manufacturers
- Removal of goods and services that are on the procurement list from the mining list to promote local production of such goods and services
- The Minerals Commission must be more proactive in sharing information and analysis pertaining to local procurement in the mining sector and collaborating with other state agencies to seek redress to critical challenges that local suppliers face.
- Facilitate local manufacturers and suppliers' access to innovative critical financing schemes to enhance their competitiveness

- Develop and implement a long-term policy, devoid of political interferences, to guide minerals extraction in Ghana. Policies should include innovations aimed at enhancing the local manufacturing in the sector

Enhancing Linkages between the Mining Sector and other sectors of the Ghanaian Economy

- Align governments industrialization agenda, including the 'One District, One Factory (1-D-1-F)' with the local content opportunities created by the mining procurement list to develop the country's manufacturing capability to deliver the required mine inputs
- Develop and implement beneficiation policies to process raw minerals into finished or semi-finished products to enhance its export value. The 1D1F vehicle can be used to promote industrialization and value addition in the mining sector.
- Enhance the linkages between mining activities and other strategic economic clusters (growth poles) of the local economy of host communities
- Build local industries capable of providing industry-standard goods and services to take advantage of the opportunities presented by AfCFTA
- A collaboration between the Ghana Tourism Authority and the Ghana Chamber of Mines is proposed in the use of decommissioned mines for tourism purposes to expand Ghana's tourist hotspots and project Ghana's mining heritage

Achieving Inclusivity in Ghana's Mining Sector

- Provide women, youth and other marginalized groups with the right training, through formal education and apprenticeship, for them to acquire industry-relevant knowledge and skills, particularly in STEM related courses
- Institute Preferential Employment and Procurement Strategy (quota system) to ensure that women, youth and persons with disabilities are deliberately targeted, and not excluded from economic participation in Ghana's mining sector
- Mining spaces should be inclusive to accommodate the specific needs of women and PWDs
- Challenge unfair norms, and build safe and positive workplace

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

Mineral resource wealth presents both opportunities and challenges to resource rich countries. Where countries have instituted the appropriate policies and measure, mineral resource wealth have served as a catalyst for sustained socio-economic development. Proceeds from the minerals sector, if used well, has the potential to finance essential infrastructural projects, invest in social sectors such as education, health and create business opportunities, indirect jobs while contributing significantly to employment creation and overall stimulation of their economies. In the face of increased commodity prices, mineral-rich countries experience strong economic growth, largely driven by a rapid expansion of mineral exports. It provides the foundation for prosperity, high living standards and accelerated economic development. On the other hand, where mineral wealth is not utilised well, it could lead to conflicts, economic instability, and lasting environmental impacts[1].

Ghana has benefited significantly from its mineral wealth. As the largest producer of gold in Africa[2], Ghana is endowed with significant deposits of bauxite, manganese, diamond, and iron ore, among others. The mining industry has stimulated economic growth and development in Ghana, through export earnings, jobs (direct and indirect), fiscal revenues, raw materials for local jewellery essential to every sector of the economy, minerals mining has continued to. Significantly, the mining sector has remained an essential direct domestic revenue source for successive governments post-independence. In 2020, the mining sector was the largest source of domestic tax revenue in the country, contributing GH 4.172 billion – representing 18.1% of total direct domestic fiscal receipts.

Despite its demonstrated contribution to the Ghanaian economy, the full potential of the mining industry remains largely unexploited. There are further benefits in forward and backward linkage industries, business development opportunities in mining procurements, service provision to mines which all ultimately create direct and indirect value addition and wealth. This notwithstanding, the government efforts over the years in the mining sector have largely concentrated on maximizing fiscal benefits and proceeds from the sector in the form of direct taxes, royalties, and fees. Consequently, the non-fiscal revenue pathways of the mining remain

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[1] Natural Resource Charter, Second Edition: https://resourcegovernance.org/sites/default/files/NRCJ1193_natural_resource_charter_19.6.14.pdf

[2] World Gold Council (2022): Gold Hub Data - https://www.gold.org/goldhub/data/gold-production-by-country#registration-type=google&just-verified=1

largely unexplored, and its benefits untapped, despite its potential of enhancing government resource mobilizations efforts. For instance, even though local content has been recognized by government, industry and civil society stakeholders as a critical path of ensuring indigenous participation in the mining sector, – through the passage and adoption of the Minerals and Mining Act, 2006 (Act 703), and the Minerals and Mining (Local Content and Local Participation) Regulations, 2020 L.I. 2431 (which repealed sections 1 and 2 of L.I 2173) – the implementation of policies to realize its achievements has been inconsistent and incoherent across the mining value chain. There exist examples of important successes in local content and local participation in the mining sector, however, there remain far more examples of the country's inability to leverage potential benefits due to weak enforcements and legislative incoherence.

As a largely procuring industry and despite some of the successes in government's policy, the economic benefits to be derived from advancing local content in the mining procurement space remains untapped. There is evidence that Ghana stands to gain greater economic benefits from local content procurement than direct taxes. Increasing local procurement in the sector would create sustainable jobs in resource-rich communities, advance local enterprises and stimulate local economies, while contributing significantly to the national economy. Similarly, establishing the economic linkages between the mining sector and other sectors remains a critical non-fiscal revenue pathway in the mining sector which has not received adequate stakeholder support, and appropriate policy direction. International cases have shown that the mining sector has the potential to advance agriculture, tourism, trade, and overall stimulation of national and sub-national economies with the potential to generate significant economic benefits.

With the need to leverage non-fiscal revenue pathway in the mining sector, it is equally important to ensure opportunities in the sector is equally accessible to all groups, including vulnerable groups. The mining sector in Ghana has remained a preserve of men, as effective women and youth participation in the sector value chain is limited[3]. In mining companies, state regulators and even within the extractives civil society space, women and youth are largely excluded from decision-making and policy formulation in a system of natural resource governance that is riddled with structural and systemic gender inequality. This situation is exacerbated by the fact that women and youth face disproportionate harms from mineral extraction in Ghana and are also less likely to access its economic benefits and opportunities. Ensuring equal, fair and equitable women and youth involvement in Ghana's mining sector is critical to addressing the prevailing inequalities in the sector. Furthermore, by recognizing and promoting active women and youth participation in the mining sector, governments and companies can ensure that mineral resource extraction is managed more effectively, and benefits shared equitably. This is extremely crucial

[3] See ILO's Women and Mine of the Future: Accessed on 21st February, 2023 https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_839704.pdf

as enough evidence have shown that enhancing active women participation in the sector can improve opportunities for women and address adverse impacts of mining on women[4].

1.2 Rationale for Study

In Ghana's mining sector, stakeholder efforts have largely focused on maximizing fiscal benefits. Consequently, seldom efforts have been placed on exploring non-fiscal revenue pathways to optimize benefits in the sector. This study therefore sought to bring non-fiscal revenue issues to the fore by enhancing stakeholders understanding of the non-fiscal revenue pathways in the mining sector study. The study will also assess and document the potential impacts and opportunities presented by non-fiscal revenues in the mining sector on Ghana's overall economy. As optimizing non-fiscal revenue pathways in Ghana's mining sector requires multi-stakeholder actions grounded in evidence-based recommendations, the study will proffer appropriate policy recommendations to stakeholders on how to maximize these pathways and opportunities to increase domestic resource mobilization, strengthen the ongoing industrialization agenda, and create additional mineral wealth for sustainable and inclusive socio-economic development. Policy recommendations from the study will also advance inclusivity in Ghana's mining sector.

1.3 Specific objectives of the assignment

Purpose

The overarching purpose of the study is to enhance government and public understanding of non-fiscal revenue pathways in the mining sector. Specifically, the study sought to;

Maximizing Local Content and Participation:

- Review theory and practice of the local content and local participation (as it forms the core of non-fiscal revenue pathways) regime in the mining sector.
- Review and identify existing local content and local participation gaps, including but not limited to legislative provisions and government policies
- Draw out the lessons learnt, the challenges faced, and methodological approaches to sustaining local content and other non-fiscal revenue pathways in the mining sector
- Propose recommendations and policy options for maximising overall Ghanaian participation in the mining sector

Enhancing Gender and Youth Participation:

- Identify various pathways for increasing youth participation in the mining sector
- Identify various pathways to achieving gender parity in the mining sector

Scope of Report

[4] International Labour Organization (2021): Women in mining: Towards gender equality. ISBN 978-92-2-034970-0 (web PDF) Accessed on 21st February, 2023 https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_821061.pdf

Given the considerable stakeholder focus on the fiscal revenues emanating from the mining sector in Ghana, this study sought to highlight the unexplored and seldomly exploited non-fiscal revenue issues in Ghana's mining sector.

Fiscal elements captured under this study includes;

1. Fiscal Revenues Pathways: Mining induced development through revenues paid directly by the upstream mining company to the government.
2. Non fiscal Revenue Pathways: Mining induced development through indirect opportunities and linkages and investments made by companies other than main upstream mining companies.

Table 1.1: Definition of Fiscal and Non-Fiscal Revenue Pathways

Fiscal Revenue Pathways	Non-Fiscal Revenue Pathways
• Corporate Income Tax • Capital Allowance • Losses carried forward • Capitalization ratio • VAT • National Health Insurance Levy (NHIL) • GETFund Levy • COVID-19 Health Recovery Levy • Pay As You Earn (PAYE) tax • Dividends from State's equity interests • National Fiscal Stabilization Levy (NFSL) • Annual Mineral Right Fees • Withholding tax on resident entities • Withholding tax on interest payable to non-residents • Withholding tax on royalties, natural resource payments and rents • Ground Rent	• Local Content and Participation (Employment and Procurement) expenditures – mining supply contracts • Beneficiation opportunities in Mining Sector • Backward and Forward linkages business developments • Investments targeted at achieving Gender Equality with respect to Women, Youth and Disability

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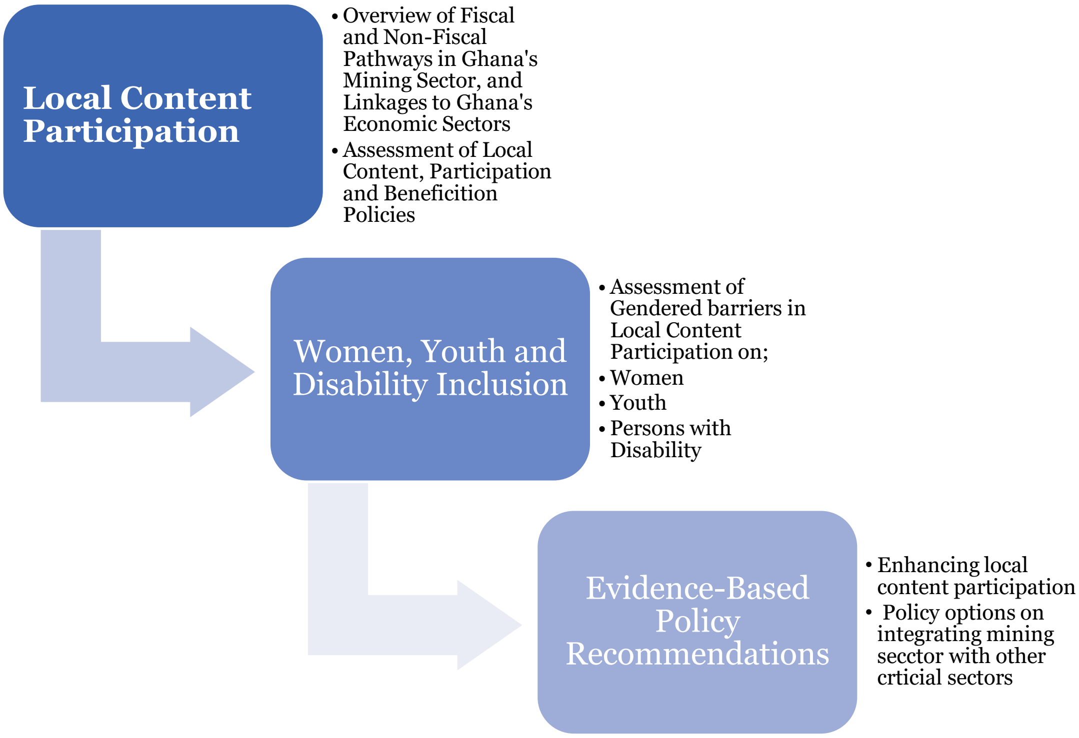
***The study did not include CSR projects implemented by mining companies.*

The figure below outlined the broad scope of the report.

Fig 1.1: Broad Scope of Report



Source: Authors' Construct

1.4 Study Methodology and Key Issues Framing

For the conduct of this study, the consultants adopted the following methodology:

Qualitative analysis

- **Desk literature review:** The consultants conducted **an extensive literature review and document analysis** covering relevant documents across Ghana's mining sector with special emphasis on Fiscal and Non-Fiscal revenue publications from reputable institutions. The objective of the literature review was to obtain a deeper contextual understanding of the various fiscal and non-fiscal pathways in Ghana's mining sector. The literature review also shaped the consultants understanding of the assignment, and served as a guide in the development of appropriate data collection tools. Also, in reviewing related literature for the conduct of this study, we were guided by our in-depth understanding of the study expectations and objectives, the anticipated limitations and the expected sector-wide impact of this assignment, including on government domestic resource mobilization and industrialization.

- **Stakeholder Analysis and Engagement:** A cardinal approach used for the conduct of this assignment is stakeholder analysis, which enabled us to identify the critical and real players in Ghana's mining sector, and subsequent engagements to deepen our understanding of the fiscal and non-fiscal pathways in the sector.

- A key approach to stakeholder engagement is through the conduct of **Key Informant Interviews (KIIs) and interviews with thought leaders ('bellwethers')** engaged in the mining sector value chain in Ghana. Through the administration of multiple semi-structured interviews, we solicited the opinions and perspectives of – identified sector organisations, including government agencies, companies, Chamber of Mines, CSOs, MMDAs, opinion leaders in mining communities, community-based women and youth groups and several influential thought leaders – on harnessing and optimizing the numerous non-fiscal revenue issues in Ghana's mining sector.

Quantitative analysis

- Analysis and reconciliation of revenue figures collected from relevant stakeholder institutions with respect to mining receipts and its share to overall government revenue

- Quantify, in monetary terms, the non-fiscal revenue pathways in the mining sector on the following broad themes;
  - Monetary value of enhanced local content participation in the procurement of mining goods and services, and active Ghanaian employment in the sector
  - Monetary value of enhanced linkages between mining sector and other critical economic sectors, including agriculture, trade and industry, tourism etc.
  - Economic value of enhanced women, youth and Persons with Disability participation in the mining value chain
- Independent verification of source documents from stakeholders to ensure data accuracy and reliability.
- Spreadsheet-based data triangulation and modelling of mining procurement contracts sourced from companies, chamber of mines and Minerals Commission for the past 3 years

Political Economy Analysis: 'Triple-A' analysis of identified problems and entry points

- Based on the outcome of the qualitative and quantitative analyses, we conducted a Problem-Driven Political Economy Analysis (PDPEA) to identify the specific possible intervention areas for optimizing the benefits of non-fiscal revenue pathways in the mining sector for government and other key stakeholders
- We used data triangulation techniques to identify the consistency of findings from the information provided by stakeholders and validate anecdotal information with available empirical data.

1.5 Limitations of the Study

The Non-Fiscal Revenue Pathway to Optimizing Benefits in Ghana's Mining Sector Study was conducted to provide a comprehensive analysis of optimizing the seldomly explored non-fiscal revenue issues to enhance domestic resource mobilization, industrialization and inclusivity.

The following challenges and study limitations are also noted for stakeholders' attention and continuous improvement of future studies;

- The categorization of various parameters under fiscal and non-fiscal revenue pathways is challenging due to the risk of double counting. For instance, PAYE by upstream mining company can be categorized under fiscal revenue pathway as the upstream company pay directly to the government. Similarly, PAYE paid directly by mining support services who are categorized under non fiscal revenue pathways could equally be classified as fiscal revenue pathway as PAYE is paid directly to government.
- Access to timely, quality and reliable data from relevant stakeholders proved daunting during the conduct of the study – which impacted the delivery of the assignment within the agreed scope and timelines. This challenge was further exacerbated by the closure of stakeholders' offices during the Christmas festivities.
- Data discrepancies from the Minerals Commission and the Ghana Chamber of Mines delayed the smooth conduct of the study

1.6 Structure of the report

The remainder of this research report is structured as follows;

- **Section 2** presents an Overview of Fiscal and Non-Fiscal Revenue Pathways in Ghana's Mining Sector:
- **Section 3** assesses Non-Fiscal Revenue Pathways in Ghana's Mining Sector with particular focus on Ghana's Local Content, Participation and Beneficiation Policies
- **Section 4** provides an Assessment of Linkages between Ghana's Economy and Non-Fiscal Revenue Pathways in the Mining Sector
- **Section 5** assesses the barriers to meaningful participation of Women, Youth and persons with disability in Ghana's mining sector
- **Section 6** concludes and provides policy recommendations on maximizing non-fiscal revenue pathways in Ghana's Mining Sector for national development

2 Overview of Ghana's Mining Sector: Fiscal and Non-Fiscal Revenue Pathways

This section examines

- Overview of mining sector – including key legislation, institutional and regulatory frameworks
- Specifically, we review key fiscal revenue sources and its contribution to Ghana's Economy
- We also review the non-revenue fiscal pathways and its quantitative contribution to the economy
- We also undertake a comparative analysis between Fiscal Revenue pathways and non-fiscal revenue pathways

2.1 Overview of Ghana's Mining Sector: Legal, Regulatory, and Institutional Framework

Historical Context

Historically, commercial mining in Ghana can be traced back to over a century, with some historical records suggesting that artisanal mining can be dated, even as far back as the 15th Century. Mineral ownership before independence was vested in the British Crown and mining companies operating at the time were predominantly foreign, while the indigenes engaged in artisanal mining for subsistence. As a result, mineral regulations were restricted to only large-scale mining. It was estimated that between the years 1493 and 1600, Ghana (then Gold Coast) was the leading producer of gold in the world, with a total output of 8,153,426 ounces[5]. There were more than thirty mines in operations around this period. The industry has over the years, evolved along different trajectories, all of which have been guided closely by various policy and regulatory reforms.

Legal and Regulatory Context

Ghana is noted for its well-established mining sector legal and regulatory framework, that safeguard the sustained growth of an industry which contributes significantly to its's GDP. The 1992 Fourth Republican Constitution of Ghana provides the primary source document for minerals extraction in Ghana. Article 257(6) of the constitution creates a regalian mineral ownership regime, where every mineral in its natural state within the territory of Ghana (land or water) is the exclusive property of the Ghanaian state.[6] Subsequently, various ordinances and legislations have been passed to regulate mining pre- and post-colonial rule. PNDC law 153, Minerals and Mining Law 1986 was the first major law enacted to regulate mining in Ghana. In 2006, Parliament passed the Mineral and Mining Act, 2006 (Act 703) to revise and consolidate existing legislations on minerals extraction in Ghana, while serving as the primary document to guide all mining activities in the country. Act 703 was amended by the Minerals and Mining (Amendment) Act, 2015 (Act 900) and the Minerals and Mining (Amendment) Act, 2019 (Act 955). The Minerals Commission Act, 1993 (Act 450), which birthed the Minerals Commission empowers

[5] Minerals and Mining Policy of Ghana, 2016

[6] See https://ghanalawhub.com/finders-not-keepers-the-ownership-of-minerals-in-ghana/

the Commission as the main regulator of mineral activities in Ghana. The Minerals Development Fund Act, 2016 (Act 912), the Minerals Income Investment Fund Act, 2018 (Act 978) as amended by the Minerals Income Investment Fund (Amendment) Act, 2020 (Act 1024) are additional critical legislations governing the utilization of mining proceeds in Ghana. [7]

The box below provides a list of subsidiary legislations passed by Parliament to ensure the mining industry is comprehensively regulated.

Box 2.1: Relevant Subsidiary Legislations in Ghana's Mining Sector

- Minerals and Mining (General) Regulations, 2021 (LI 2173)
- Minerals and Mining (Support Services) Regulations, 2012 (LI 2174)
- Minerals and Mining (Compensation and Resettlement) Regulations, 2012 (LI 2175)
- Minerals and Mining (Licensing) Regulations, 2012 (LI 2176)
- Minerals and Mining (Explosives) Regulations, 2012 (LI 2177)
- Minerals and Mining (Health, Safety and Technical) Regulations, 2012 (LI 2182)
- Minerals and Mining (Ground Rent) Regulations, 2018 (LI 2357)
- Minerals and Mining (Mining Operations-Tracking of Earth Moving and Mining Equipment) Regulations, 2020 (LI 2404)
- Minerals and Mining (Local Content and Local Participation) Regulations, 2020 (LI 2431) and
- Income Tax (Minerals Income Investment Fund Exemptions) Regulations, 2020 (LI 2433)

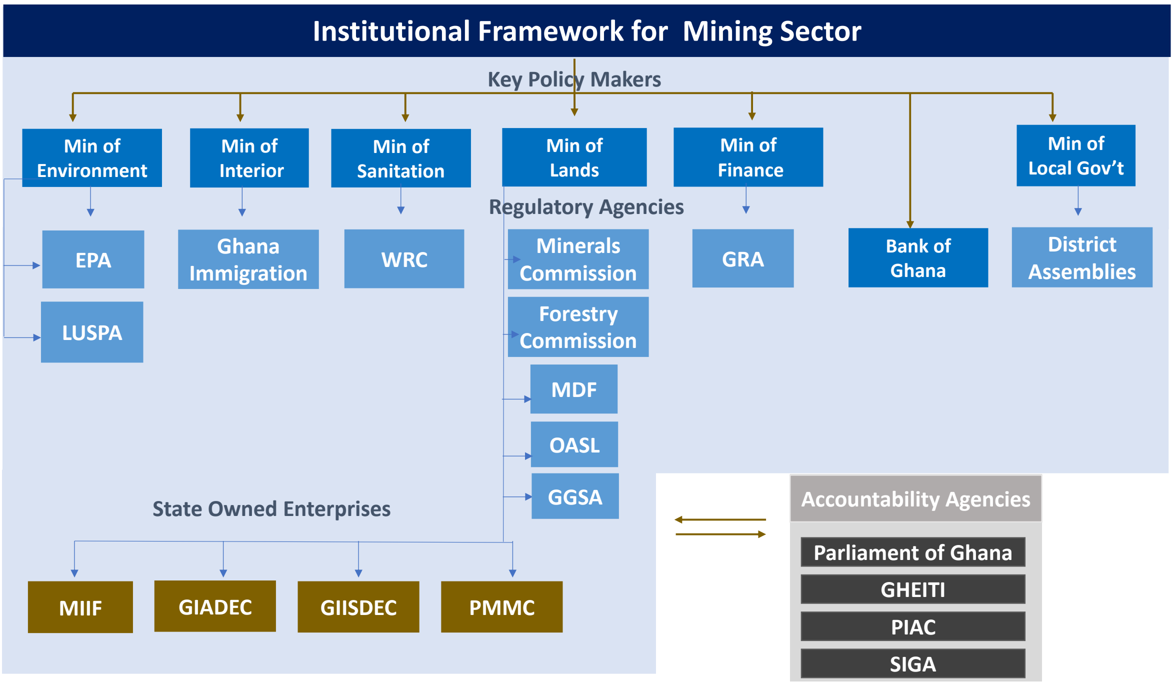
Source: GHEITI Recon (2022)

Institutional Arrangements

The mining sector in Ghana has a robust institutional arrangement. The Ministry of Lands and Natural Resources and the Minerals Commission are the two principal state institutions that govern the sector. While the ministry provides the strategic policy framework for the sector, the Minerals Commission, established by the Minerals Commission Act 1993 (Act 450), regulates and manages minerals extraction, and coordinate and implement mining policies. The Environmental Protection Agency, Forestry Commission, Water Resources Commission, Ghana Geological Survey Authority, Lands Commission and the Land Use and Spatial Planning Authority provide quasi-regulatory functions in the management of the mining sector. The Central Bank, Ghana Revenue Authority and the Precious Minerals Marketing Company (PMMC) also play significant economic and financial roles in the mining sector value chain.

[7] See https://iclg.com/practice-areas/mining-laws-and-regulations/ghana

Fig 2.1: Graphical presentation of the institutional arrangements in the mining sector



Source: GHEITI 2020 Reconciliation Report

2.2 Mining Sector Contribution to Ghana – Fiscal Revenues Pathways

Current Context

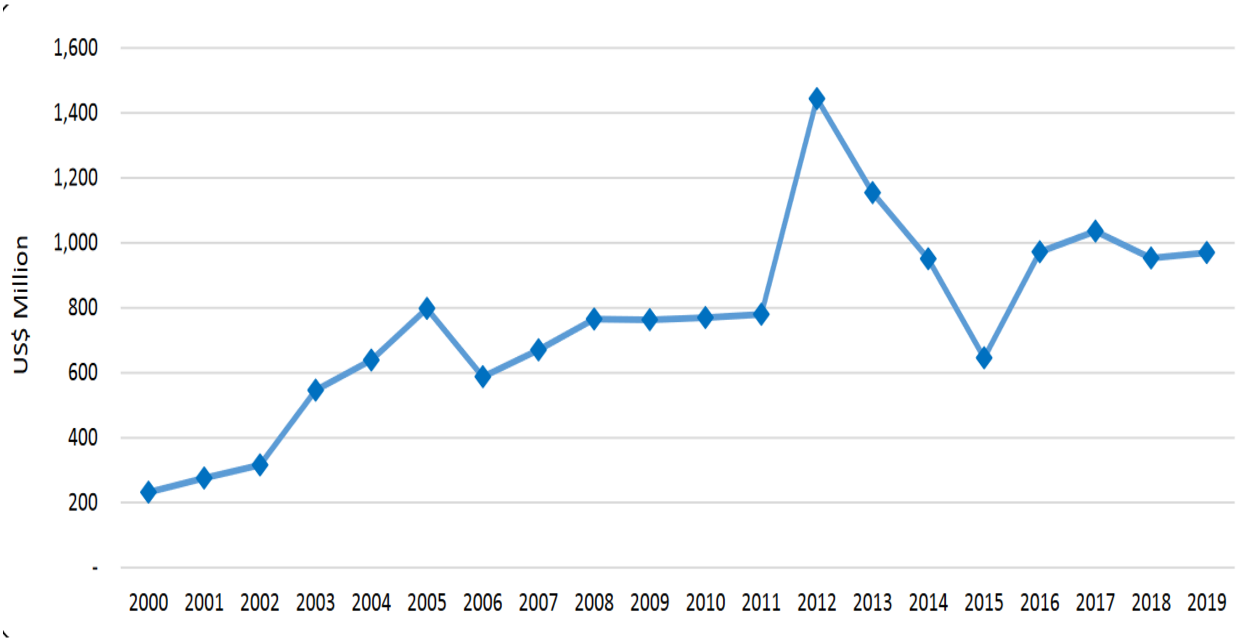
Mining makes significant contribution to Ghana's economic growth and development in the form of GDP growth, fiscal revenues, foreign exchange earnings, Foreign Direct Investments (FDIs), jobs, etc. Surpassing South Africa as Africa's largest gold producer in 2021[8], gold production account for over 90 percent of minerals revenue. Ghana is also endowed with deposits of limestone, iron ore, columbite-tantalite, salt, feldspar and quartz. Ghana additionally discovered commercial quantities of lithium, a critical transitional mineral, in 2018[9]. As a result of its enormous mineral deposits, fiscal contribution from mineral extraction has been significant. In 2020, the sector accounted for 8.6 percent of Ghana's gross domestic product (GDP), and 8 percent of total government revenues, 48.5 percent of the value of merchandise export[10]. The sector additionally plays a critical role in employment generation in Ghana. The Ghana Statistical Service Ghana

[8] World Gold Council (2022): Gold Hub Data - https://www.gold.org/goldhub/data/gold-production-by-country#registration-type=google&just-verified=1
[9] See https://www.trade.gov/country-commercial-guides/ghana-mining-industry-equipment
[10] GHEITI Reconciliation Report (2020): https://www.gheiti.gov.gh/site/index.php?option=com_phocadownload&view=category&id=67:2020&Itemid=54

Living Standard Survey (GLSS 7) estimated that the sector accounts for 1.5 percent of Ghana's employed population.[11]

Ghana's business-friendly and politically stable environment has enhanced the potential of the mining sector to attract significant FDIs. The sector attracts over 5o% of all foreign direct investment (FDI) into the country, and consistently contributes substantially to the availability of forex in the country[12]. For instance, in 2000, total mining sector investment into Ghana amounted to USD 231 million dollars and reaching an all-time high in 2012 with an estimated USD 1.44 billion dollars' worth of investment. Total mining sector investment in 2019 was USD 969 million dollars. [13] It is worth highlighting that this investment received significantly contributes to Ghana's capital formation multipliers with consequential impact on other sectors of the Ghanaian economy.

Fig 2.3: Total Investment Inflows into the Mining Sector (2000 – 2019)



Source: Ghana Chamber of Commerce 2019 Industry Statistics and Data

With respect to government earnings from merchandise export of commodities, the mining sector continues to play a vital role. For instance, in 2019, Government of Ghana total earnings from merchandise export was USD 15.667 billion. According to data from the Bank of Ghana, proceeds from the export of minerals increased from USD 5.760 billion in 2018 to USD 6.687 billion in 2019, representing a 16 percent increase. Thus, the mining sector's contribution

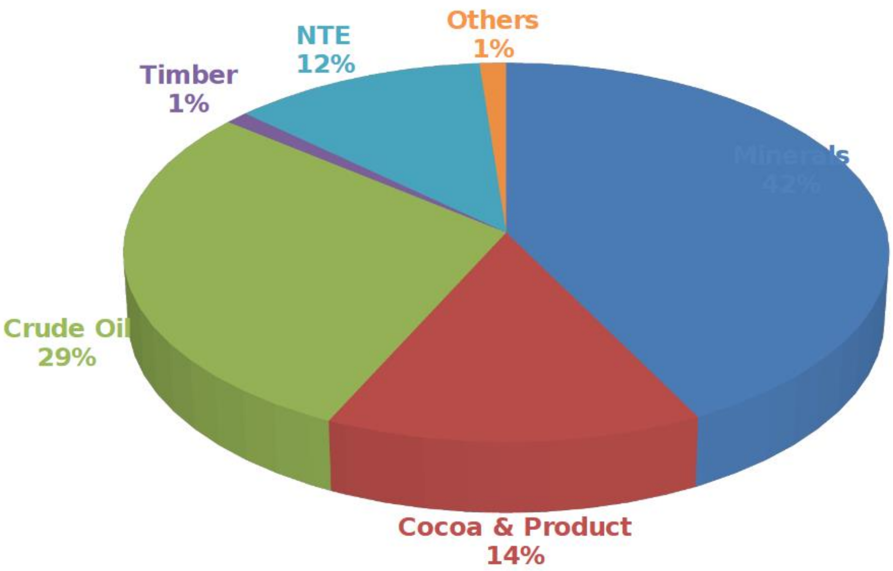
[11] See https://mofep.gov.gh/news-and-events/2022-04-22/ghana-launches-2019-eiti-mining-and-oil-gas-reports

[12]See https://www.trade.gov/country-commercial-guides/ghana-mining-industry-equipment

[13] See https://ghanachamberofmines.org/wp-content/uploads/2020/07/2019-Mining-Industry-Statistics-and-Data-for-Ghana.pdf

to overall export merchandise in 2019 was 42.63 percent, comparing favourably to other traditional commodities, including cocoa and crude oil. [14]

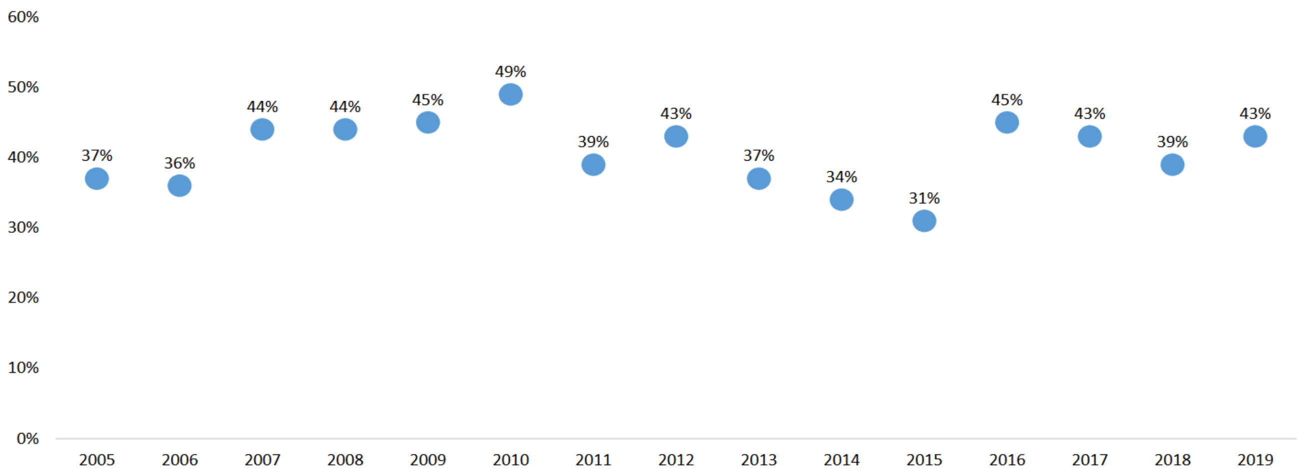
Fig 2.4: 2019 Merchandise Export of commodities



Source: Bank of Ghana

It is instructive to note that the mining sector, in particular gold exports, has consistently contributed to Ghana's export receipts, pre and post oil production, and has been vital in improving the country's trade balance. The table below shows the sector's contribution to overall merchandise export in percentage terms between 2005 and 2019.

Fig 2.5: Share of Mineral Receipts in Total Exports (2005 – 2019)



Source: Ghana Chamber of Mines

[14]See https://www.mincom.gov.gh/wp-content/uploads/2021/06/2019-MINCOM-ANNUAL-REPORT.pdf

Tax Revenue (Historical Context)

In the transition from self-governance to colonialism, the authority to determine the fiscal regime of the mining sector accrued to the colonial power. Hitherto, mineral endowments were considered an asset of the indigenes of the area where it was located and exploited along familial lines in terms of land ownership. The king or chief of the mineralized area, who was recognized as a custodian of the land, enacted the fiscal framework under which the proceeds or surplus from mining were distributed, primarily among the individual miners, stool or local chief, and paramount chief. In addition, the paramount chief could also introduce specific or ad-valorem taxes to extract surplus or additional revenue from the miners for special projects. For instance, Dumett (1998) suggests that the Ashanti King introduced a poll tax that was equivalent to one-tenth of the value of gold produced to finance the expansion of the kingdom in the nineteenth century. However, the fiscal authority of the overlord was supplanted by the British Crown in the colonial period and passed on to the central government in the post-independence period. Unlike the dispensation under the Crown where the mining sector fiscal payments were largely ringfenced to finance infrastructure in mining areas, the use of mineral revenues by the central government was nationally oriented [15].

The elements and terms of the fiscal regime used to extract a portion of the surplus realized by the mining firms have changed over the years. The main components of the prevailing fiscal framework are royalties, corporate income tax, and dividends. The table below provides a summary of the main mining fiscal receipts from the large-scale mines to the government from 2015 to 2021.

Table 2.1: Mining Sector Fiscal Regime

Fiscal Instrument	Application Rate	Basis for Calculation
Mineral Royalty	5% (sliding scale rate of 3% - 5% for those with Development Agreement)	Production
Corporate Income Tax	35% (32.5% for those with Development Agreement)	Based on net income
Capital Allowance	20% straight line on mining assets for 5 years	Capital expenditure
Losses carried forward	5 years	Declared losses
Thin Capitalization	3:1 (debt-equity ratio)	Debt and equity composition
VAT	12.5%	Value of Supplies or Purchases
National Health Insurance Levy (NHIL)	2.5%	Value of taxable supplies or purchases
GETFund Levy	2.5%	Value of taxable supplies or purchases

[15] Dumett, Raymond E. 1998. *El Dorado in West Africa: The Gold-mining Frontier, African Labor, and Colonial Capitalism in the Gold Coast, 1875-1900.* Athens: Ohio University Press and Oxford: James Currey

Fiscal Instrument	Application Rate	Basis for Calculation
COVID-19 Health Recovery Levy	1%	Goods and services and imports
Pay As You Earn (PAYE) tax	Graduated (0% – 30%)	Salaries
Dividend tax	8%	Net income after tax
National Fiscal Stabilization Levy (NFSL)	5% of profit before tax	Profits before tax
Government Free Carried Equity	10%	Equity
Annual Mineral Right Fees	As prescribed by L.I. 2176	Annual fees based on Mineral license
Withholding tax on resident entities	Goods 3%, Works 5%, Services 7.5%	Payment for goods and services
Withholding tax on interest payable to non-residents	8%	Interest
Withholding tax on royalties, natural resource payments and rents	15% Section 115(1a) Act 896, as amended	
Ground Rent	As prescribed by L.I. 2357 GHS 778.38 per cadastre unit (or GHS 15 per acre)	Based on acreage size of mineral license or concessions

Source: GHEITI 2020 Reconciliation Report

Table 2.2: Headline Fiscal Receipts from the Mining Sector

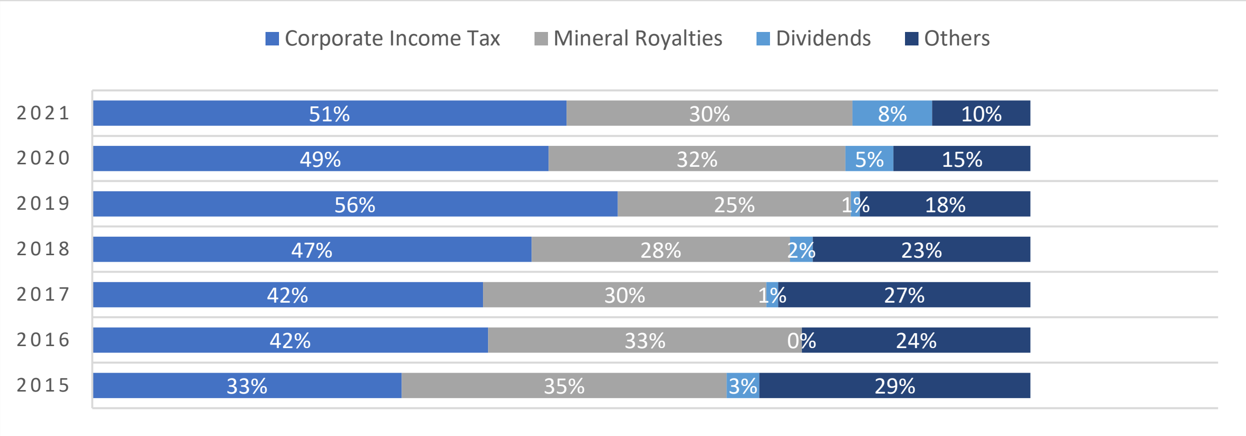
Year	Corporate Income Tax (GHS)	Royalty (GHS)	Dividends (GHS)	Total Mining Contributions (GHS)
2015	463,128,598	485,632,657	49,036,072	**1,403,416,043**
2016	695,683,612	550,738,650	-	**1,648,183,049**
2017	969,978,327	702,407,280	29,609,655	**2,328,152,610**
2018	1,199,597,591	705,262,160	61,887,800	**2,561,545,074**
2019	2,269,768,470	1,006,668,500	38,520,630	**4,051,888,280**
2021	2,139,225,504	1,391,236,063	224,836,599	**4,397,723,787**
2021	2,547,302,894	1,535,914,578	427,958,154	**5,038,677,542**

Source: Ghana Chamber of Mines (2022)

On average, the large-scale mining sector contributed GH₵ 3.06 billion in direct fiscal payments to the government from 2015 to 2021. The largest stream of fiscal payments over the period was corporate income tax, which accounted for 46 percent of the sector's fiscals. This was followed by royalty, whose share in the fiscal payments averaged 30 percent over the same period. The lagging share of royalty suggests that most mines have exhausted their capital allowance and are therefore in a tax-paying position. In a sense, this also implies that the mining industry is a relatively mature sector. Further, dividend payments represent three (3) percent of the government's receipts from the mining sector in the previously cited period. Taxes on salaries of employees of mining firms and other payments to GRA accounted for 21 percent of the sector's fiscal contributions within the period.

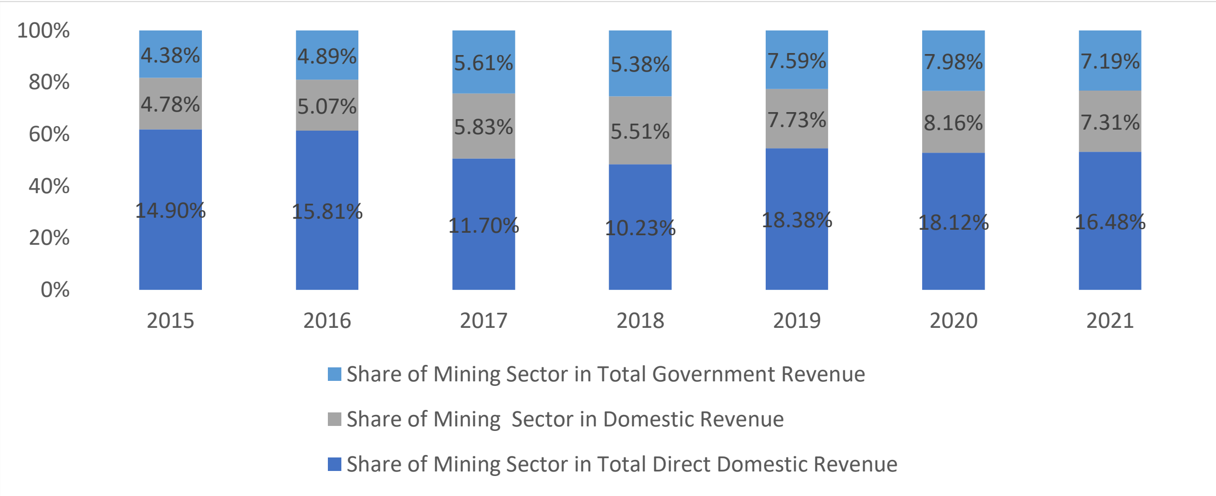
The fiscal payments by the mining firms have consistently been the largest source of direct domestic revenue mobilized by the Ghana Revenue Authority (GRA). The sector's fiscal contributions represent 15.1 percent of gross direct domestic tax receipts from 2015 to 2021. Within the same period, the mining sector's share of fiscal payments in total domestic and government revenue averaged 6.3 percent and 6.2 percent respectively.

Fig 2.6: Contribution of Fiscal Stream to Total Mining Fiscal Payments



Source: Ghana Chamber of Mines (2022)

Fig 2.7: Share of Mining Sector's Payments in Gross Fiscal Revenue



Source: Ghana Chamber of Mines (2022)

2.3 Mining Sector Contribution to Ghana – Non-Fiscal Revenues Pathways

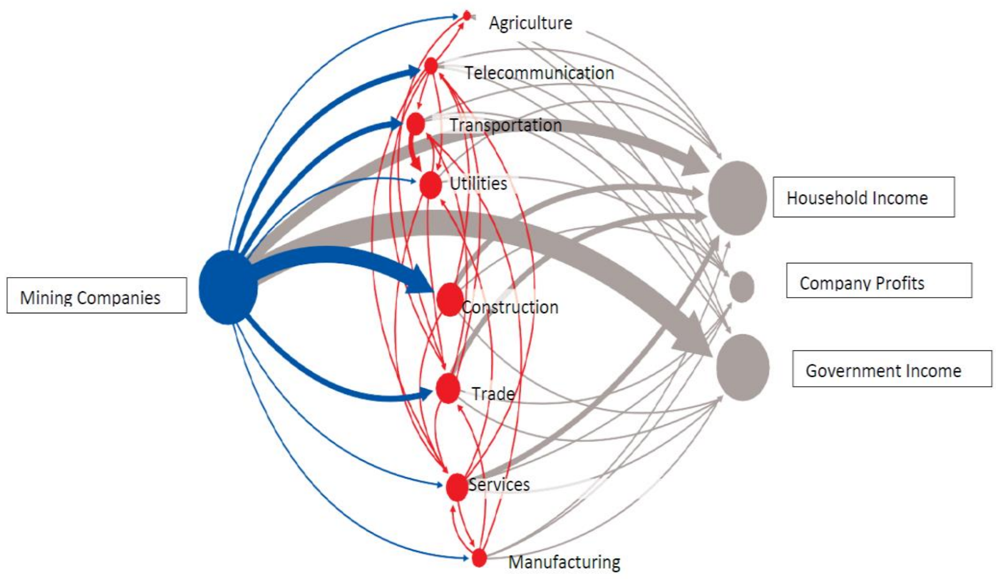
The mining sector has remained a critical sector of Ghana's economy over centuries. While the country has gained significantly from fiscal revenues accrued from the sector, which has served as a vital resource to advance socio-economic development, the contribution of the sector, extends beyond fiscal revenues. To unlock the non-fiscal opportunities presented by the industry, countries adopt local content policies which targets the expansion of industrial activities through more value addition; institute policies to create business opportunities for the domestic private sector from local procurement, and generate indirect jobs along the mining supply chain; and provide wider opportunities for the economy, notably through the use of infrastructure and mining-related capabilities for other economic sectors.

Ghana, like most resource-rich countries, in the past decades have through legislations and policies strengthened non-fiscal revenue measures in the mining sector through local content promotion and value addition (LCVA) policies. Ghana's LCVA policies have sought to integrate mining activities with employment generation and stimulation of local economies through procurement, while serving as a catalyst for broad-based growth of non-resource sectors. The non-fiscal revenue pathways in the mining sector contributes to Ghana's socio-economic development as follows;

Advancing economic development through increased local procurement

Mining operations requires inputs in the form of materials, purchased services, technology inputs, contract mining services, fuel and electricity, transport, and trade allocations. The industry's demand for goods and services is one of the important ways through which the mining sector interacts with the non-minerals sector to internalize value elicited by the exploitation of mineral resources. This interrelationship involves small, medium, and large-scale enterprises supplying the input requirements of the mining firms and receiving payments in return. Since the capital requirements involved in the supplier-end of such transactions are not significant, this pathway is more inclusive and has an enduring microeconomic impact.

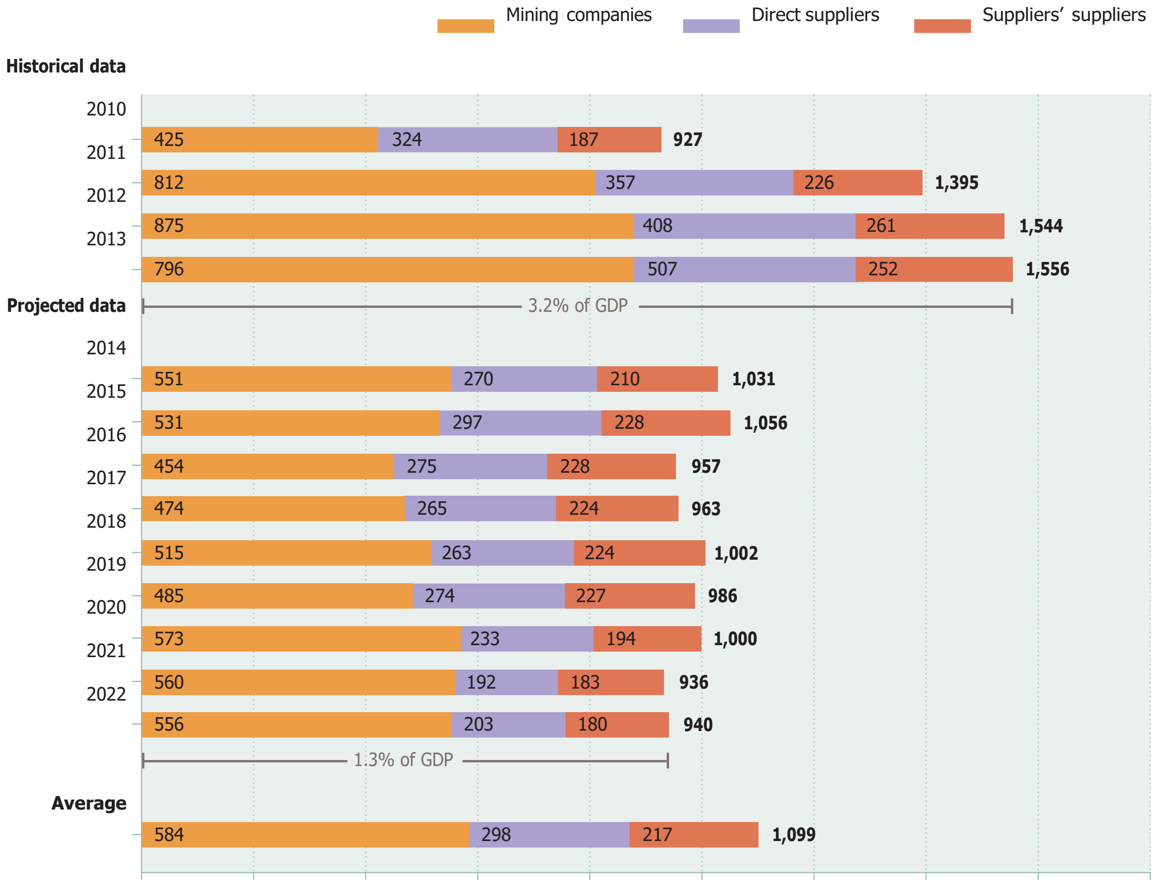
Fig 2.8: Supply chain (procurement) linkages in the mining sect0r



Source: Steward Redqueen and ACET (2016)

This is demonstrated in the value added to the local economy through the expenditures of the mining firms. The value added is basically the velocity or rounds of demand or spending induced by the mining firms' in-country expenditure on goods and services. The first round of spending, which is known as direct value added, is the transaction between the mines and their direct suppliers. As well, the second and third rounds of expenditure are the demand elicited by the transactions between a direct supplier and intermediary supplier as well as between a direct or intermediary supplier and other suppliers respectively. The second and third rounds of expenditures are also referred to as indirect and induced value added. Steward Redqueen and ACET (2015) estimated that the value added to the local economy through mining firms' expenditure was US$ 1.5 billion in 2013, which was equivalent to 3.2 percent of GDP. Further, they estimated that the multiplier associated with the velocity of mining firms' expenditure is 0.80. [16] This implies that for every dollar spent on locally sourced goods and services, US$ 0.80 is retained in the economy.

Fig 2.9: Historical and Projected Value Added per Velocity of Expenditure

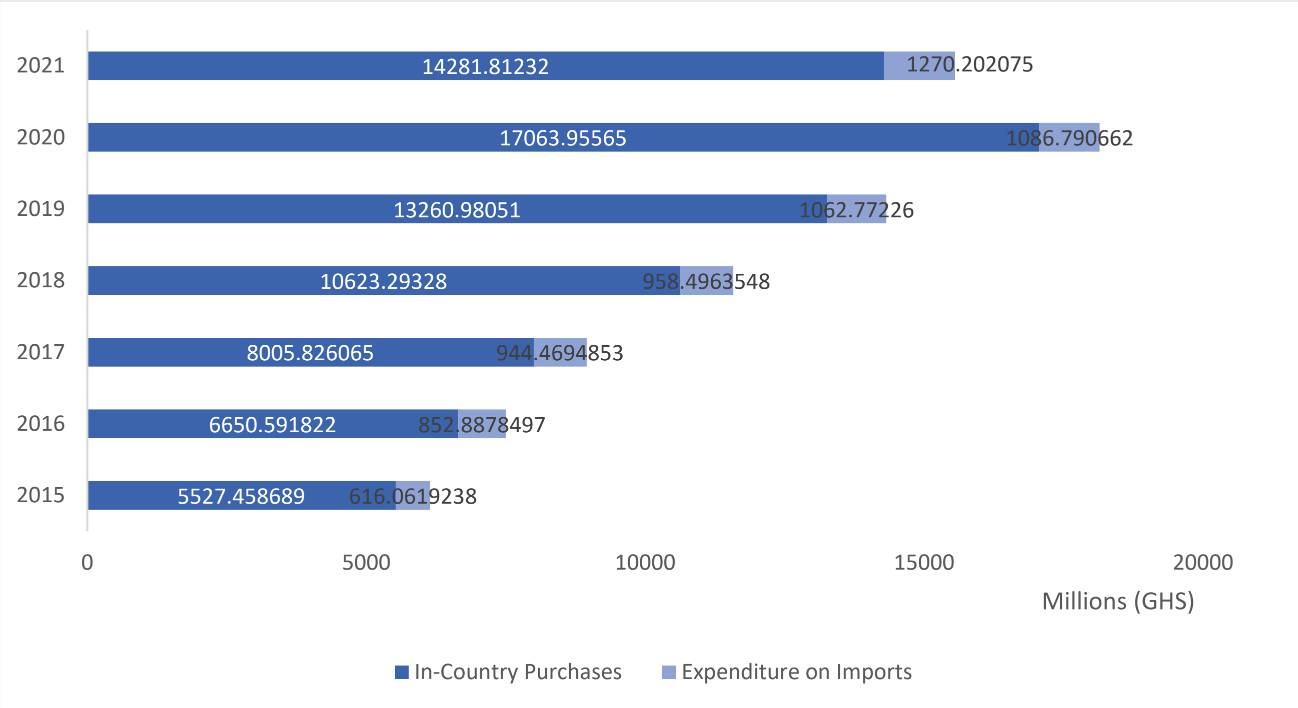


Source: Steward Redqueen and ACET (2015)

[16] https://ghanachamberofmines.org/wp-content/uploads/2016/11/2015_Mining_in_Ghana_What_future_can_we_expect.pdf

As shown in the figure above, the expenditure-induced value added is concentrated in the first tier of spending, that is, between mining firms and their direct suppliers. To appreciate the nominal value of transactions generated at the first stage of spending, the aggregate demand of the thirteen (13) producing mines of the Ghana Chamber of Mines would be used as a proxy for the mining industry. In other words, the value of purchases by the thirteen mines from various suppliers is equated to the first round of value added to the economy by the mining sector. Data from the Ghana Chamber of Mines suggests that its producing member companies spent GH₵ 82.21 billion on non-CAPEX goods and services from 2015 to 2021, which translates into an annual average expenditure of GH₵ 11.7 billion. GH₵ 75.41 billion out of the aggregate expenditure on inputs accrued to local vendors in the form of payment for goods and services. The remaining amount was spent on imported consumables. In essence, mining companies spent 92 percent of their procurement purse on local suppliers and manufacturers between 2015 and 2021. Based on the aforementioned multiplier, it could be inferred that GH₵ 60.3 billion accrued to local suppliers and manufacturers between 2015 and 2021[17].

Fig 2.10: Expenditure of Mining Firms on Locally Sourced and Imported Inputs



Source: Based on data from the Ghana Chamber of Mines (2022)

Again, it is worth noting that the above figure is exclusive of mining procurement in the ASM sector, and its consequential impact on socio-economic development in host communities, and at the national level.

Enough evidence exists to emphasize the socio-economic benefits of local procurements to mineral-rich countries in the global south, including Ghana. Sourcing locally made goods and services for mines do not only generate jobs for resource-rich countries and host mining

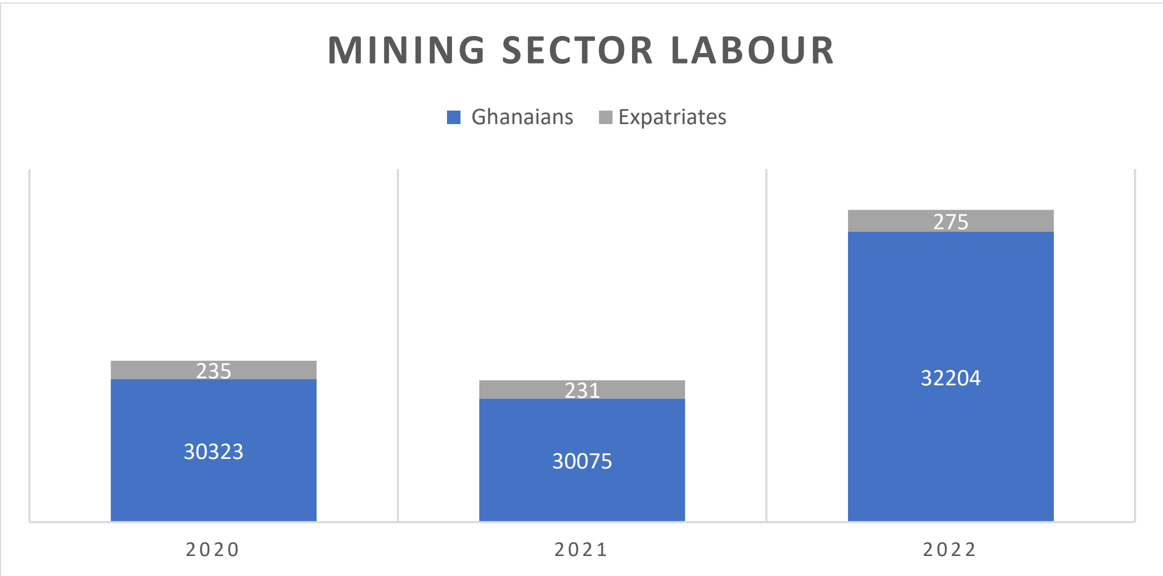
[17] This conclusion assumes equivalence between USD and GH₵, which is convenient.

communities, but also provides the platform for country-wide enterprise development. [18] Similarly, the International Labour Organization notes that procurement-induced employment opportunities in mining communities advances sub-national economic development through satellite economic activities dependent on mines such as hotels, restaurants, and grocery shops.

Employment opportunities and income generation

Extracting and processing large volumes of minerals require a great deal of manpower and machinery. Consequently, globally, the mining sector is a strong contributor to employment generation. From underground mining engineers and machine operators and drivers, to administrative clerical roles, mineral-rich countries have used minerals extraction to create sustainable and dignified jobs. **Available data from the Minerals Commission indicates that measures aimed at increasing indigenous Ghanaian participation in the mining sector have largely worked**. Available industry data show that less than 1 percent of total mining workers in Ghana are expatriates.

Fig 2.11: Mining Sector Labour Categorization



Source: Minerals Commission

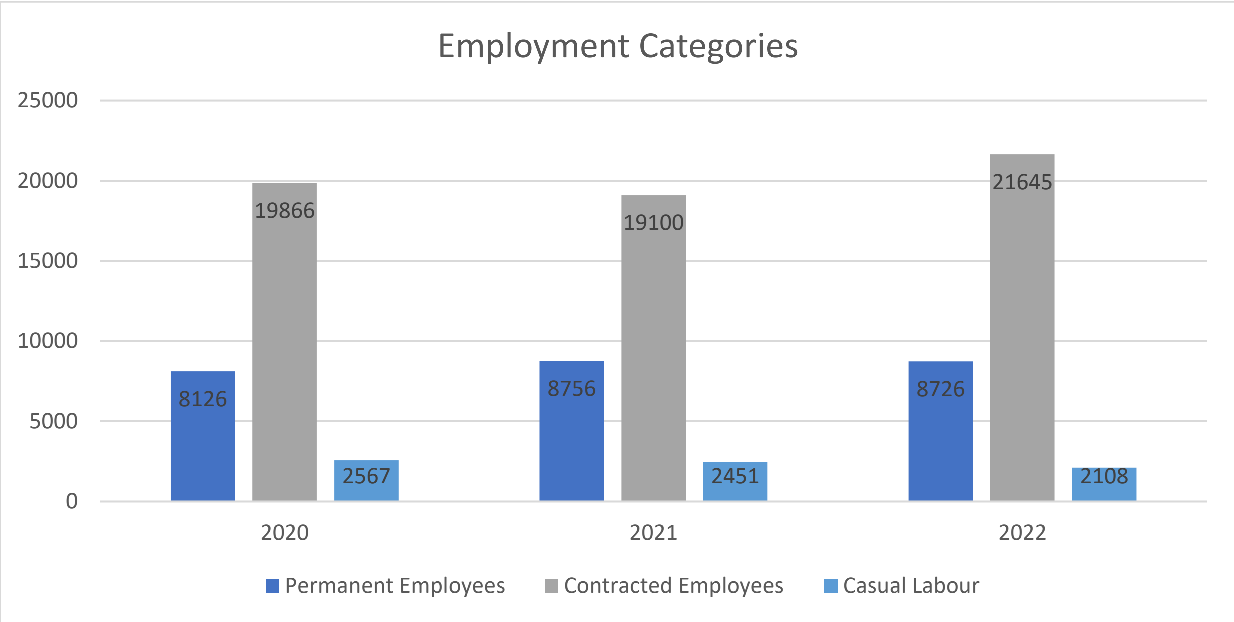
NB: 2022 Labour statistics is the averages of the 1st to 3rd Quarters.

With over 99 percent of mine sector workers Ghanaians, and the sector being highly paid, local employment promotion of the sector contributes significantly to increased household income of families - which further promotes household spending and savings, while engendering economic growth.

[18] Atta-Quayson (2022). Local procurement in the mining sector: Is Ghana swimming with the tide? *Journal of the Southern African Institute of Mining and Metallurgy*, vol. 122, no. 2, pp. 59-72

The above notwithstanding, the Ghana Mineworkers Union have expressed strong misgivings about the increasing contractualization of the sector, whereby mining companies have resorted to employing people on a contractual basis. The union argues that this phenomenon deprives a significant section of Ghanaian mining labour force of employment security, and its associated benefits, including medical insurance, pensions and paid leave. These contract staff also have a high risk of layoff, compared to permanent staff.

Fig 2.12: Employment Categories in Ghana's Mining Sector



Source: Minerals Commission

NB: 2022 Labour statistics is the averages of the 1st to 3rd Quarters.

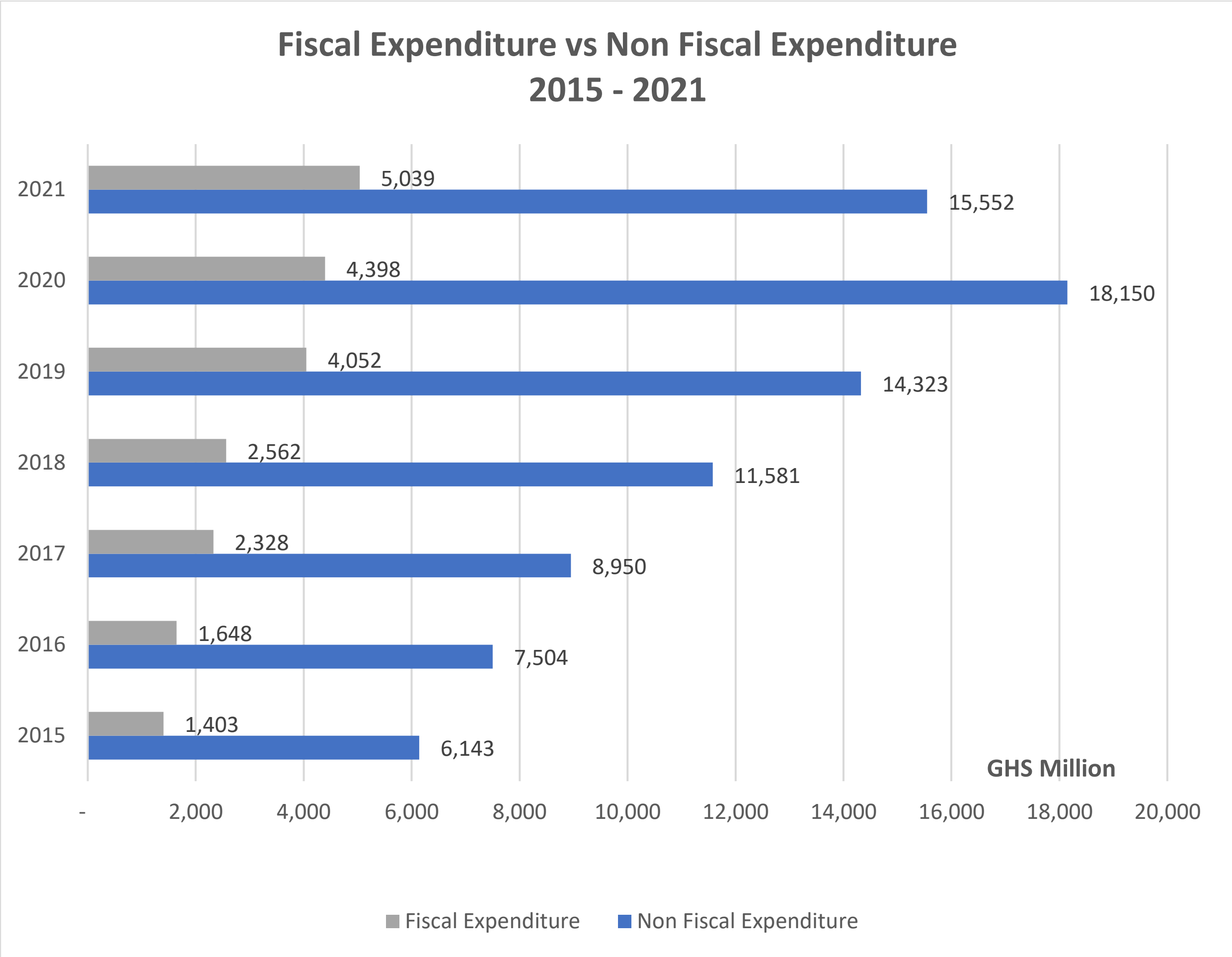
It is instructive to note that the mine labour figure is exclusive of workers in Ghana's ASM sector, which accounts for about 31 percent of Ghana's total gold production. Also, employment generation is relatively high in the ASM sub-sector due to its labour-intensive nature. Considered as a 'poverty-driven activity' which largely involves unskilled, illiterate and rural dwellers, the ASM sector in Ghana provides livelihood for over 1 million people, while providing income source for a further 5 million more people and families – bolstering economic growth and protecting the vulnerable.[19] With women marginalized in the LSM sector, the ASM sector provides them with lifeline incomes, as women constitute 50 percent of the sector's labour force in Ghana. [20] Lastly, amidst increasing graduate unemployment in Ghana, empirical studies have shown an increased in the number of graduates joining the sector – as a source of primary income, income diversification source, or as an opportunity to start a business in a highly profitable sector. [21]

[19] See https://www.iied.org/ghana-our-way-participatory-reform-artisanal-small-scale-mining-sector

[20] McQuilken, J., & Hilson, G. (2016). *Artisanal and small-scale gold mining in Ghana. Evidence to inform an 'action dialogue'. IIED*. London. https://doi.org/10.13140/RG.2.2.36435.99368

[21] Arthur-Holmes et, al. (2022). Graduate unemployment, artisanal and small-scale mining, and rural transformation in Ghana: What does the 'educated' youth involvement offer? Journal of Rural Studies Volume 95, October 2022, Pages 125-139

Fig 2.13: Comparison of Fiscal and Non-Fiscal Payments of Mining Firms



Source: Ghana Chamber of Mines (2022)

2.4 Summary

Ghana's mining industry has a robust institutional arrangement instituted to advance the effective management of the sector, headed by the Ministry of Lands and Natural Resources, with day-to-day oversight of the sector led by the Minerals Commission of Ghana. This is accompanied with relevant legislative provisions enacted to ensure the sector is adequately and comprehensively regulated. As a result of the comprehensive legislative framework and the robust institutional governance structures, the Ghanaian economy derives both fiscal and non-fiscal benefits from the sector. Fiscal rent received from the sector includes PAYE, royalties, property rates, corporate taxes, business operating permits, among others. Consequently, fiscal revenues from the mining sector have remained a significant source of domestic tax revenues in Ghana for decades.

The study showed that while the fiscal revenue pathways present government with reliable mineral rent, which is used to finance critical development projects and initiatives, the non-revenue pathways in the mining sector, particularly local employment and procurement presents an even greater and significant opportunities. To unlock the non-fiscal opportunities presented by the industry, Ghana should further increase awareness and adopt appropriate local content policies which targets the expansion of industrial activities through more value addition; continue with appropriate policies to create business opportunities for the domestic private sector from local procurement, and generate indirect jobs along the mining supply chain; and provide wider opportunities for the economy, notably through the use of infrastructure and mining-related capabilities for other economic sectors. The section concludes that with the right policy interventions, Ghana can optimize enormous fiscal benefits from non-fiscal revenue pathway in Ghana's mining sector to accelerate socio-economic development.

3 Non-Fiscal Revenue Pathways: Ghana's Local Content, Participation and Beneficiation Policies in Mining Sector

This section provides

- Theoretical underpinnings of Value Maximization and Retention – Local Content and Participation
- Assessment of Ghana's existing Local Content Policies in the Mining Sector against global best practices to point out any potential gaps
- Case Studies on the implementation of Ghana's Local Content Policy – SWOT Analysis

3.1 Local Content Policies – Theoretical Underpinnings

The concept of Local Content and Value Addition (LCVA) is intended to alleviate the inherent challenges presented by extractive, specifically its characteristic as an enclave development. This means the mining sector can operate in a manner that exclusively suits its needs and may not take into account the needs, use and the development of other sectors in host countries. It has the potential to be a stand-alone sector with no integration with other sectors to spur development. Hence, Local Content Policies in extractives are aimed at ensuring value maximization and efficient linkages between the mining sector and the wider economy.

The overall concept of resource linkage and integration theory is largely attributed to balanced and unbalanced economic growth theories that were advanced by German-American economist Friedrich List (1789;1846) ;(Clairmonte, 1959; Streeten, 1959) and economists such as Albert Hirschman and Paul Streeten respectively. In development economics, the balanced growth doctrine prescribes that all sectors of the economy must develop simultaneously over time to usher in a new period of economic prosperity, placing emphasis on equal investment and the need for sectoral linkages. Effectively, the argument for this relies on coordinated expansion of several sectors. List posits that economic prosperity and liberty can be realized when a nation systematically progresses from primary sector activities to secondary and tertiary sector activities.

However, Hirschman (1958)[22] argues that in an economy, any form of investment upsets equilibrium and results in new demands that bring about unbalance. Therefore, there will be further potential unbalance (disturbance) in the market if any new investments are made to target new demands. Effectively a balance growth (simultaneous development of all sectors) is unattainable and the best way of achieving economic growth is to target sectors that have the potential to grow and stimulate multipliers in other sectors or industries, rather than the blanket approach of balanced growth. The application of this in the mining industry means there should be investments and promotion of industries with strong interdependencies or linkages[23] to other

[22] Hirschman, A.O. 1958. The Strategy of Economic Development. Yale University Press, London.
[23] Linkage in this context was defined as 'investment generating forces that are set in motion, through input-output relations, when productive facilities that supply inputs to that line or utilize its outputs are inadequate or non-existent'

sectors. Hence creating interdependence in the mining sector should be deliberate as the sector is inherently an enclave.

The initial investment and subsequent reinvestments to meet new demands in the economy under the unbalanced growth doctrine led to linkages or connectedness between various sectors. These linkages are best illustrated through the input-output models. The work of Hirschman and others over the years uncovered a number of linkage types in the economy.

Fig 3.1.: Types of Interconnectedness and Linkages with Mining Industry

3.2 Local Content and Value Addition Policies in the Mining Sector

The mining sector is an enclave. Hence, it requires specific and targeted policies to force its integration and linkages with the wider economy. To maximize benefits from the sector, resource rich governments are increasingly adopting Local Content and Value Addition (LCVA) policies in the form of legislations aimed at increasing the use of domestic factors of production in the mining sectors and provide more prospects for local economy to benefit from mining industry. According to the McKinsey Global Institute, over 90 percent of resource-rich countries had introduced local content laws and policies by 2013. [24] Furthermore, the adoption of the African Mining Vision by the African Union and the ECOWAS Minerals Development Policy in 2009 accelerated LCVA implementation in the region.[25]

[24] "Reversing the curse: Maximizing the potential of resource-driven economies," McKinsey Global Institute, December 2013.

[25] Atta-Quayson (2022). Local procurement in the mining sector: Is Ghana swimming with the tide? *Journal of the Southern African Institute of Mining and Metallurgy*, vol. 122, no. 2, pp. 59-72

Box 3.1: Prerequisites for the Design of a Robust LCVA Policies

LCVA policies provides a path to efficient integration and value maximization, however it is not an end in itself. Before designing an LCVA policy, it is important to highlight the political economy dynamics to avoid policy implementation failures. The mining sector possess some inherent characteristics that enjoins policy developers not to underestimate the political economy dynamics. The sector is highly susceptible to corruption. It generates huge sums of resource rents that empower political actors to undermine transparency and accountability and use such rents to maintain the status quo. There is high community and citizen pressure on duty bearers to distribute resource rents. These unique characteristics, among others necessitate corruption, vested interest, and political capture. Consequently, countries need to some fundamental prerequisites and conditions in place to ensure that LCVA policies stimulate efficient and effective outcomes. Below are some of the key conditions that a country needs to have in place before it decides whether or not it should design LCVA policies.

1. ***Long Term Vision and Clear Objectives with Measurable Targets:*** LCVA policies should be designed within a long-term development plan; or an integrated policy that transcend beyond political cycles and create sustainable industrial linkages with the rest of the economy. To design a robust LCVA policy with a clear intended result, its intended objectives must be well-defined, and responsibilities clearly allocated so that the burden of delivery does not fall solely on the mining industry and that all stakeholders involved can be made accountable for their role in the process. – clear and measurable targets and timelines
2. ***Institutional Readiness and Coherence in Responsibilities:*** The level of institutional readiness to oversee the implementation of LCVA policies. The relevant institutions capacity must be built ahead of time to prepare them respond to potneitl challenges with transparency and accountability; policy coordination and cohernence; coordination between private sector and government; and private – public dialogues
3. ***Advance global and regional development outcomes and strategic visions including the Sustainable Development Goals (SDGs) and Africa Mining Vision (AMV):*** LCVA policies are instituted to achieve global and regional development initiatives or targets. One of the key thrusts of the AMV is the importance of leveraging the potential linkages in the mining sector for industrial development.
4. ***Respond to public unrest and social license to operate:*** host communities are increasingly resisting project development because they feel the costs of mining activities on their livelihoods and environment are higher than the benefits they derive from those activities. LCVA policies targets integration and local economy development
5. ***Increase the number of success stories among communities:*** demonstrating the benefits of tailor-made and industry-led LCVA policies and how communities can successfully incorporate these benefits into mining agreements. – Newmont Ahafo
6. ***Increasing pressure from civil society organizations to push countries to go beyond revenue payments and consider other levers for economic development:*** increasing discussion and desire for actions that can improve economic development outcomes beyond revenue payments. Issues such as local procurement are becoming more prominent in discussions between governments and civil society organizations.
7. ***Insufficient voluntary/industry-led action:*** In response to the perception of limited industry-led actions by mining companies to enter into voluntary agreements with their communities to access procurement markets, numerous governments have included local procurement provisions in policy amendments to force companies to do so.

Box 3.2: Rationale for Local Content and Value Addition (LCVA) Policies

1. *Responds to fiscal and political crises relating to mineral commodity downturns and the lack of structural transformation during boom periods*. LCVA policies targets the need to deepen industrial linkages between the mining sector and other local industries.
2. *Advance global and regional development outcomes and strategic visions including the Sustainable Development Goals (SDGs) and Africa Mining Vision (AMV):* LCVA policies are instituted to achieve global and regional development initiatives or targets. One of the key thrusts of the AMV is the importance of leveraging the potential linkages in the mining sector for industrial development.
3. *Respond to public unrest and social license to operate:* host communities are increasingly resisting project development because they feel the costs of mining activities on their livelihoods and environment are higher than the benefits they derive from those activities. LCVA policies targets integration and local economy development
4. *Increase the number of success stories among communities:* demonstrating the benefits of tailor-made and industry-led LCVA policies and how communities can successfully incorporate these benefits into mining agreements. – Newmont Ahafo
5. *Increasing pressure from civil society organizations to push countries to go beyond revenue payments and consider other levers for economic development:* increasing discussion and desire for actions that can improve economic development outcomes beyond revenue payments. Issues such as local procurement are becoming more prominent in discussions between governments and civil society organizations.
6. *Insufficient voluntary/industry-led action:* In response to the perception of limited industry-led actions by mining companies to enter into voluntary agreements with their communities to access procurement markets, numerous governments have included local procurement provisions in policy amendments to force companies to do so.

Local procurement Requirements remains a critical means of maximizing the benefits of minerals extraction. Despite mining laws historically enjoining mineral right holders to prioritise the procurement of local goods and services, enforcement of same have been challenging. The assumption is that a competitive and efficient local supplier who is able to meet the needs of the industry expands the frontiers of procurement by opening more opportunities for manufacturers and suppliers further downstream, thereby creating numerous local employment opportunities, and promoting skills and technology transfer, while providing opportunities for local management and ownership. To achieve this, resource-rich countries in Sub-Saharan Africa, including Mali, Senegal, Guinea, South Africa and Zambia, have enacted legislative provisions to compel strict enforcement of local procurement quotas aimed at spreading the benefits of mining evenly, while utilizing innovative policies to build the capacity of local firms to meet the high industry standards.[26]

[26] Atta-Quayson (2022). Local procurement in the mining sector: Is Ghana swimming with the tide? *Journal of the Southern African Institute of Mining and Metallurgy*, vol. 122, no. 2, pp. 59-72

Policy options for maximizing local procurement manifests in two broad forms – demand-driven and supply-driven policies. Demand-driven policies are aimed at encouraging mining companies to purchase goods and services from local suppliers, while supply-driven policies support local suppliers to competitively access mining procurement contracts. It is instructive to note that the choice of policy options largely depends on government economic priorities such as revenue maximization and employment generation.[27]

With regards to demand-driven policies, some **resource-rich governments have introduced mandated quota system to enhance the procurement of local goods and services**. For instance, South Africa has introduced specific percentages for local procurement of goods and services by mining right holders with the overriding objective of advancing local economic development. Other countries such as Ghana and Argentina use the 'targeted list of goods and services that should be procured locally' approach, where specific goods or services are reserved exclusively for local suppliers and manufacturers. In Argentina, all transport services must be sourced locally, while Ghana has a list of goods and services to be sourced locally.[28]

A number of mineral-rich countries also use supply-driven policies to drive the procurement of local goods and services, including **requirements for R&D spending**. In Sweden for instance, the government has instituted the requirements for R&D spending policy to enjoin mining companies to contribute to a national mining R&D fund. Furthermore, **technology transfer requirement** is also used by some resource-rich developing economies to advance local content participation through the transfer of technology to local stakeholders. In Nigeria's petroleum sector, foreign companies are required to submit a technology transfer plan that outlines how they intend to pass on their technology to local players as part of their conditions of investment. It is worth noting that a similar technology transfer requirement exists in Ghana's petroleum sector. [29]

Local employment quotas have remained a major policy tool in enhancing localization in the sector, particularly for developing countries. These mandated quotas can either apply to specific roles, or to the overall mining project. For instance, in clerical or non-skilled labour roles, local employment policies are usually 100 percent local workers, as in the case of Nigeria and Ghana. However, for technical and management roles, local employment policies often prescribe percentages, with limitations on how many expatriates to be employed within a particular project. For instance, the local employment policy in Kazakhstan prescribes different minimum quotas for nationals depending on the role; for management positions (minimum requirement is 70 percent) and for technical and specialist roles (minimum requirement is 90 percent). Additionally, the

[27] Ramdoo, I. (2016). Local content policies in the mining sector: Approaches and lessons learnt.
[28] Organisation for Economic Co-operation and Development. (2017a). Local content policies in minerals-exporting countries: Case studies (TAD/TC/WP(2016)3/PART2/FINAL). Trade and Agriculture Directorate.
[29] International Institute for Sustainable Development (2019). Local Content Policies in the Mining Sector: Scaling Up Local Procurement. Canada.

minimum quota for overall locals in the sector is 90 percent. [30] Similarly, in South Africa, local employment quota is a minimum of 40 percent at all levels, including at least 10 percent of women in mining activities. To cater for historical inequities, the law mandates for a percentage of management roles be reserved for historically disadvantaged groups, including women and indigenous black population. [31]

Submission of succession or localization plans by mining companies has also been used by mineral-rich countries to maximize local participation in the sector. In instances where the requisite technical competency is not available in the local population, "succession" or "localization" plans are used to demonstrate how mining companies intend to train local people to occupy such roles in a given period. For instance, in Tanzania, the 2014 Draft Local Content Policy enjoins mining license applicants to develop and submit an employment succession plan, showing how nationals would acquire the relevant skills to occupy positions occupied by expatriates. The succession plan therefore becomes the basis for determining the extension of the expatriate working permit. Similarly, in Papua New Guinea, the draft Mineral Policy mandates developers to submit Training and Localization Plans (TLP) that highlights how they intend to train nationals in the sector. [32]

As the technical nature of the mining sector necessitates the presence of expatriates to ensure some technical skills are available at the start of a project, some **mineral-rich countries use visa restrictions as a tool** to ensure knowledge and skills are passed onto to locals. In such instances, the award and renewal of expatriate visas are dependent on satisfaction of relevant localization programs. In Tanzania, expatriates' visas are extended after the company fulfils a localization program, while in Angola, expatriates are only hired if the required skill is not available in-country. [33]

3.3 Ghana's Local Content and Value Maximization Policies

The mining sector in Ghana is the largest tax-paying sector in the nation and significantly contributes to GDP. More than half of Foreign Direct Investment (FDI) and nearly half of all export income are generated by the mining industry which is a key component of the Ghanaian economy. Yet, when it comes to facilitating industrial development for economic transformation, Ghana's mining sector has a poor track record. With a view to reaping more benefits from the mineral resources, the Government is progressively implementing Local Content and Value Maximization Policies. The policies reinforce government's goal of promoting the use of locally

[30] See https://www.iisd.org/system/files/publications/local-content-policies-mining-direct-local-employment.pdf
[31] 2017 South African Mining Charter
[32] United Republic of Tanzania. (2014). Local content policy of Tanzania for the oil and gas industry (Draft One)
[33] See https://www.iisd.org/system/files/publications/local-content-policies-mining-direct-local-employment.pdf

produced goods and services, Ghanaian training and capacity building and fostering sustained growth along the mining value chain.

Box 3.3: Contextualizing 'Local Content' in Ghana's Mining Sector

According to the Minerals Commission, the main focus of Ghana's local content is to create local employment and to promote growth of domestic manufacturing (through procurement of local goods and services). While the Minerals Commission and relevant legislations do not explicitly define local content (as was done by the Petroleum Commission), various sections of key legislations interpret the concept of local content in the Ghanaian mining sector. For instance, the Minerals and Mining Act, 2006 (Act 703) and L.I. 2431 seeks to achieve the following local content objectives;

- Ensure Ghanaians are employed and trained to work in the mining industry and rise to become part of the highest decision makers
- Ensure local businesses can compete favourably with foreign companies in accessing contracts in the mining industry

LI 2431 explains localisation as "a training programme designed towards the eventual replacement of expatriate personnel by Ghanaian personnel". Therefore, a localization programme in the mining sector may include proposals with respect to the employment and training of Ghanaians towards the eventual replacement of expatriate personnel, and preference for local goods and services, as the context permits.

Source: Minerals Commission

The Minerals and Mining Law 2006, Act 703, and its 1986 predecessor, makes provisions for mining companies to prioritize the procurement and utilization of local goods and services. In 2012, the Minerals and Mining (General) Regulations, 2012 (L.I. 2173) was passed to give further meaning to Act 703. Sections 1 and 2 of LI 2173 provided the blueprint for enhancing local participation in the mining sector;

- Employment and promotion of a local workforce as well as training requirements;
- Procurement of locally produced goods and services; and
- Additional licensing and reporting requirements.

In 2020, the Minerals and Mining (Local Content and Local Participation) Regulations, 2020 (LI 2431) was passed to consolidate important mining laws and regulations relating to local content including the Minerals and Mining Act, 2006, Act 703, Minerals and Mining (General) Regulations, 2012 (L.I. 2173) and the Minerals and Mining (Support Services) Regulations, 2012 (L.I. 2174). LI 2431 is applicable to a holder of a reconnaissance license, a prospecting license or a mining lease, a holder of a license to export or deal in minerals and a person who is registered to provide mine support services. Additionally, LI 2431 revokes sections 1 and 2 of LI 2173, which hitherto provided the legislative framework for advancing local participation in the sector.

LI 2431 therefore provides a dedicated local content and local participation regulations for the mining sector to achieve the following;

- Promote job creation through the use of local expertise and goods and services and the retention of jobs in-country
- Maximize local level and in-country spend for the provision of goods and services in the mining sector
- Increase the degree of participation of Ghanaians, or Ghanaian companies in the mining sector
- Develop local capacities and expertise in the mining sector through education, skills transfer, technology transfer and research
- Increase the capability and international competitiveness of local businesses
- Establish mining and mining related support industries to provide jobs and enhance economic development

Underpinning the above objectives of LI 2431, which provides the broad policy framework for local content and value addition (LCVA) in Ghana, is

- Promotion of a local workforce
- Increased procurement of locally-sourced goods and services,
- Development of vertical and horizontal linkages between the mining sector and Ghanaian economy

While the remainder of this chapter analyzes the employment and procurement policies and practices in Ghana's mining sector, the development of vertical and horizontal linkages of the mining sector is treated extensively in the next chapter.

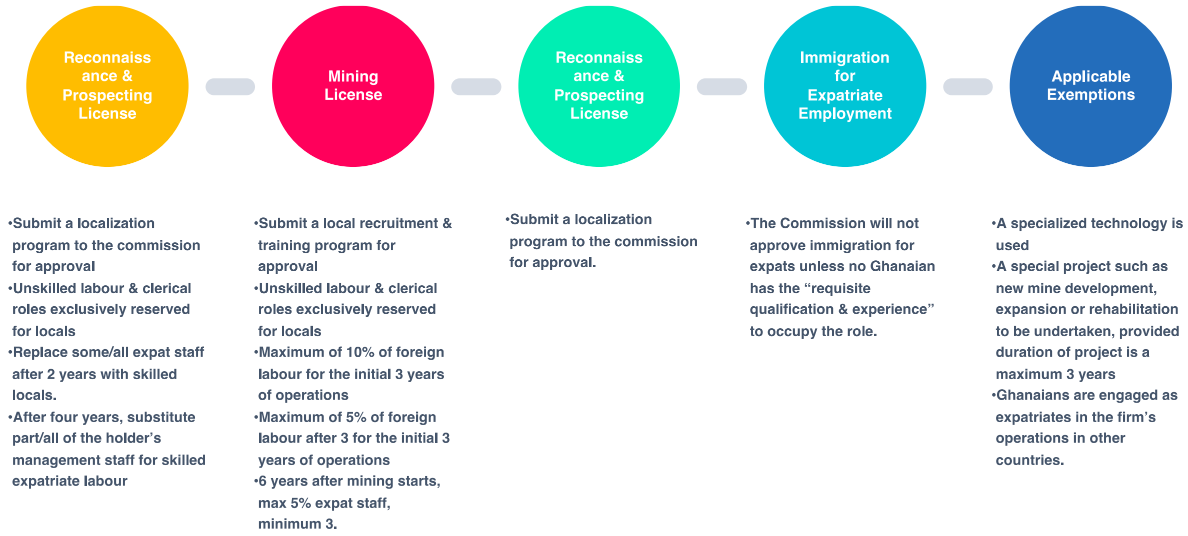
Employment and Promotion of Local Workforce

LI 2431 requires that an application for a mining license or right to provide support services is accompanied by a detailed proposal on employment and training of Ghanaians. Specifically, the LI enjoins prospecting license holders to demonstrate their commitment to training Ghanaians to occupy positions filled by expats within a specified timeframe by submitting a localization programme. The localization programme will include;

- Planned and ongoing recruitment and training of Ghanaians to replace expatriates
- The number of expatriate staff relative to the number of total senior staff
- Indication of gender inclusive workforce

The law also reserves unskilled and clerical/administrative roles in the sector for Ghanaians, while imposing a cap on the number of expats to be employed by right holders across the various stages of a mine project. The table below provides an overview of the specific employment restrictions at the various stages of a mining project, as captured in LI 2431;

Fig 3.2: Overview of LCVA Requirements in Ghana's Mining Sector



Source: Authors' construct from LI 2431

The highlighted requirements are intended to maximize Ghanaian participation in the sector through training, recruitment and retainment. Additionally, the localisation programme is required to provide indication on gender-inclusive recruitment. LI 2431 also contains punitive and enforcement mechanisms intended to enhance compliance to the prescribed local content provisions. Entities with approved programmes are expected to submit annual reports to the Minerals Commission – demonstrating their level of compliance. Also, the regulations detail that a person's failure to conform to the localisation programme is liable to a penalty of one year's gross salary of the foreigner involved for each month or part of each month that the expatriate worked. The amount involved will be paid into an account established by the Minerals Commission to support training of Ghanaians for employment in Ghana's mining sector.

Procurement of goods and services with Ghanaian Content

In addition to policies aimed at promoting Ghanaian employment in the mining sector, LI 2431 further provides the legislative regime for increasing procurement of local goods and services. Under the law, holders of mineral rights, mines support service providers, and holders of export licence are enjoined to purchase goods and services with Ghanaian content to the maximum extent possible and consistent with safety, efficiency and economy. In furtherance of this, applicable entities are required to submit a 5-Year Procurement Plan to the Commission for review and approval, highlighting targets for local procurement (covering items on the local procurement list), prospects for local procurement and support to local service providers and suppliers. To increase Ghanaian participation, the Minerals Commission has championed the introduction of a Mining Procurement List. The List included selected goods and services that are required to be supplied or provided for by Ghanaian businesses or firm, whether or not they are produced locally or imported. In practice, the intended focus is to get many Ghanaians involved in the sector to build capacity to sustain participation. The procurement list is the main conduit to rope in more Ghanaina companies. Since 2012, the Procurement list has increased from from required which requires the provision of goods and services items on the list to be Furthermore, the Minerals Commission is championing for stronger partnership and joint ventures between foreign and local firms on the delivery of specific services to enhance skills transfer.

Technical and engineering, insurance and reinsurance, accounting, legal and financial services must be rendered by companies owned and managed by Ghanaian citizens according to LI 2204. It specifies that if a foreign corporation must be hired to offer these services, it must do so in collaboration with a Ghanaian service provider and with the Commission's consent. If an industry is regulated, such as insurance, the National Insurance Commission's permission will be required. Importantly, the law states that in selecting and assessing tenders for good and services on the local procurement list, bids containing the highest level of Ghanaian participation in terms of ownership, management and employment shall receive maximum priority.

As with the local employment provisions, the law also prescribes punitive measures for non-complying mineral rights holders with regards to local procurement. A person who fails to comply with these regulations is liable to pay the Commission a penalty of ten thousand United States dollars for each month of the first six months of default and subsequently ten thousand United States dollars for each day that the default continues. Additionally, a person who fails to submit semi-annual reports on the implementation of the procurement plan will pay to the Commission a penalty of ten thousand United States dollars for each month of the first two months of default and subsequently ten thousand United Sates dollars for each day that the default continues.

3.4 Best Practices in Ghana's Local Content Practices: Procurement List

Ghana's local content policies have evolved over the years to enhance the participation of Ghanaians in the sector. While significant progress has been made in increasing Ghanaian participation in the mining sector labour force, as demonstrated in the preceding chapter, participation in supply chain contracts have proved challenging over time. To address this, Ghana adopted the Procurement List policy in 2012 following the enactment of the local content regulation LI 2173. The list is aimed at stimulating local production of specific goods and services, while deepening the vertical and horizontal linkages between the mining sector and the wider Ghanaian economy.

In 2014, the Minerals Commission published the first procurement list of eight goods and services categories to be sourced through local suppliers.

Fig 3.3: Tracks of Government's Procurement List Policies

2014

1. Grinding media
2. Heavy duty electrical cables
3. High Density Polyethylene (HDPE) and Polyvinyl Chloride (PVC) pipes
4. General Lubricants
5. Quick and Hydrated lime
6. Re-treading of Tyres
7. Explosives (emulsion)
8. Cement and Cement Products/Grout

2015

1. Grinding media
2. Bolts And Nuts
3. Crucibles
4. Plastic Sample Bags
5. Calico Bags
6. Bullion Boxes
7. Chain Lining Fencing, Wire Netting, Barbed Wire
8. Conveyor Rollers
9. Metal/PVC Core Trays
10. Overalls And Work Cloths
11. Haulage Services
12. Catering Services

2018

1. Grinding Media
2. Explosives (Emulsion)
3. Cement and Cement Products/Grout
4. Quick and Hydrated Lime
5. Electrical Cables
6. High Density Polyethylene (HDPE) and Polyvinyl Chloride (PVC) pipes
7. Re-treading of tyres
8. Bolts and Nuts
9. Crucibles
10. Plastic Sample Bags
11. Calico Bags
12. Bullion Boxes
13. Chain Link Fencing, Wire Netting, Barbed Wire etc.
14. Conveyor Rollers
15. Metal/PVC Core Trays
16. Overalls and Work Clothes
17. Haulage Services
18. Catering Services
19. Security Services
20. Legal Services
21. Insurance Services
22. Financial Services
23. Contract Mining
24. Fuel
25. Activated Carbon
26. Cable Bolt and accessories, Split Setts, Rebars, Mining Mesh
27. Wear Resistant Plates e.g., Hardox, etc.
28. Cupels

2022
1. Grinding Media 2. Explosives (Emulsion) 3. Cement and Cement Products/Grout 4. Quick and Hydrated Lime 5. Electrical Cables 6. High Density Polyethylene (HDPE) and Polyvinyl Chloride (PVC) pipes 7. General Lubricants (incorporated in Ghana with Exclusive Ghanaian Directors and Shareholders) 8. Re-treading of tyres 9. Bolts and Nuts 10. Crucibles 11. Plastic Sample Bags 12. Calico Bags 13. Bullion Boxes 14. Chain Link Fencing, Wire Netting, Barbed Wire etc. 15. Conveyor Rollers 16. Metal/PVC Core Trays 17. Overalls and Work Clothes 18. Haulage Services 19. Catering Services 20. Security Services

2022
21. Legal Services 22. Insurance Services 23. Financial Services 24. Contract Mining 25. Fuel 26. Activated Carbon 27. Cable Bolt and accessories, Split Setts, Rebars, Mining Mesh 28. Wear Resistant Plates e.g., Hardox, etc. 29. Cupels 30. Drilling; Surface operations 31. Drilling; Underground operations 32. Civil works; including construction of access/haul roads & other infrastructure, etc. 33. Geophysical Ground-based Survey; Mapping, Pitting and Trenching 34. Geophysical Airborne-based Survey 35. Freight Forwarding Services 36. Warehousing 37. Complete Logistics Services 38. Oxygen Generating Plant and Booster 39. Ground Engagement Tools 40. Hoses and Fittings

2023
1. Grinding Media 2. Explosives (Emulsion) 3. Cement and Cement Products/Grout 4. Quick and Hydrated Lime 5. Electrical Cables 6. High Density Polyethylene (HDPE) and Polyvinyl Chloride (PVC) pipes 7. General Lubricants (incorporated in Ghana with Exclusive Ghanaian Directors and Shareholders) 8. Re-treading of tyres 9. Bolts and Nuts 10. Crucibles 11. Plastic Sample Bags 12. Calico Bags 13. Bullion Boxes 14. Chain Link Fencing, Wire Netting, Barbed Wire etc. 15. Conveyor Rollers 16. Metal/PVC Core Trays 17. Overalls and Work Clothes 18. Haulage Services 19. Catering Services 20. Security Services 21. Legal Services 22. Insurance Services 23. Financial Services 24. Contract Mining - Surface Operations 25. Contract Mining - Underground Operations (Strictly incorporated in Ghana with a minimum of 40% Ghanaian Directors and Shareholders

2023
26. Fuel 27. Activated Carbon 28. Cable Bolt and accessories, Split Setts, Rebars, Mining Mesh 29. Wear Resistant Plates e.g., Hardox, etc. 30. Cupels 31. Drilling; Surface operations 32. Drilling; Underground operations 33. Civil works; including construction of access/haul roads & other infrastructure, etc. 34. Geophysical Ground-based Survey; Mapping, Pitting and Trenching 35. Geophysical Airborne-based Survey 36. Freight Forwarding Services 37. Warehousing 38. Complete Logistics Services 39. Oxygen Generating Plant and Booster 40. Ground Engagement Tools 41. Hoses and Fittings 42. Tailings Storage Facility -Construction and Management 43. Medical Services 44. Assaying 45. Motor Rewinding 46. Cutlass Epoxy Resins (Crusher Backing & Lagging epoxy compound etc) 47. Conveyor Idlers/Head Pulleys & Systems 48. Plant Installation Activities (including structural steel installation works, pipe installation including HDPE, plate works installations, mechanical installation works, crane/lifting equipment rentals etc) 49. Steel Supply and Pre-fabrication Services (including structural steel, pipe and plate fabrications) 50. Slurry, water and Sewage Valves (Knife gate, Nex-val Valves)

Source: Minerals Commission (2023)

The publication of the list – in the Gazette, the website of the Commission and a newspaper with nationwide circulation – engendered renewed interest of Ghanaians in supply chain contracts in the sector, while providing legislative avenues for their participation. **To ensure the list adequately responds to emerging dynamics in the sector, Regulation 7(3) of L.I. 2431 enjoins the Commission to review the procurement list annually**. It is worth noting that since its inception in 2014, the Commission has released 4 other editions, with the latest edition released in 2023.

The 2023 Procurement list provides enormous opportunities for local manufacturers and suppliers. The study also acknowledges government's ambitious plan for local manufacturing in Ghana's mining sector, aimed at enhancing economic linkages with other sectors.
Notwithstanding the procurement list engendering local participation in the sector, Ghanaian activities remains importation, instead of manufacturing, which is resulting in high transactional cost which has negative consequence on governments fiscal receipts from the sector. There is therefore a need for the Minerals Commission to conduct an annual review of the list to ensure it adequately responds to the capacities of local suppliers. The study further identified the following critical factors affecting Ghanaian manufacturers in the sector, which requires urgent attention;

- Unreliable and costly power
- Low technological know-how and innovation
- Inadequate access to competitive financing
- Absence of critical soft and hard infrastructure
- Difficulties in marketing goods and services
- Low production capacity of firms

3.5 Gap Assessment of Ghana's Local Content Policies against Best Practices

Over the decades, successive Ghanaian governments have introduced formal and informal measures aimed at enhancing Ghanaian participation in the mining sector. These policies were heightened with the passage of Legislative Instruments 2173 and 2431, which as shown above, provided the broad legislative framework for local content participation in Ghana's critical mining sector. Despite these well-intended efforts, significant gaps exist in local content implementation. This section of the study highlights a few of those gaps.

Absence of a gendered quota in relevant Local Content laws in Ghana

The absence of a gendered quota in local content implementation in LI 2431 has been identified by this study as a significant local content policy gap relative to global best standards. Even though the governing legislative framework for local content implementation in Ghana's mining sector admonishes mineral right holders to include **'gender considerations'** in the training and employment of Ghanaians in the sector, this provision in the law has proved to be woefully inadequate in advancing inclusivity in the sector. This has resulted in the low participation of females and other vulnerable groups in employment and procurement activities. In South Africa, the 2018 Mining Charter which requires at least 70% of mining procurement to be sourced locally, further requires 5% spent on goods produced by women or youth-controlled companies. Furthermore, the Charter requires that 15% of services be supplied by women-owned businesses.[34]

Absence of legally mandated community development agreements in local content policies

Mineral extraction is expected to advance national development, while directly impacting mineral-rich communities. In some developed and developing mineral-rich countries, local content policies have served as a useful tool in ensuring mineral extraction directly benefits host communities. Australia, Mongolia, Canada and Brazil have explicit community development legislative provisions and policies – a local content approach which enjoins mining companies to negotiate with host communities – as a means of maximizing local economic development in host communities. The global Intergovernmental Forum on Mining (ICM) indicates that most of the community development agreements have significant employment and procurement provisions, which have significantly benefited host communities.[35] In Ghana, mineral extraction have seldomly impacted host communities, perpetuating hostility between mining companies and host communities, decreasing their social license in the process. The industry mainly focus on the achievement of high returns on investments and share prices, often at the expense of vulnerable group inclusion efforts and the development of the communities in which they operate.

Yet, unlike global best practices, local content implementation in Ghana has excluded **legally-mandated** codified community development agreements, undermining socio-economic development of host communities. The Ahafo Community Agreement, entered in 2008 between ten communities and Newmont Ghana, is worthy of mentioning. This agreement is however not a creature of law, but a voluntary agreement between the mine and the communities.

[34] International Institute for Sustainable Development (2019). Local Content Policies in the Mining Sector: Scaling Up Local Procurement. Canada.
[35] International Institute for Sustainable Development (2019). Local Content Policies in the Mining Sector: Scaling Up Local Procurement. Canada.

Box 3.3: Golden Star Resources Signs MoU with host communities

Despite the absence of community development agreements in Ghana's local content laws, Golden Star Resources, in the spirit of community development and shared prosperity, have signed an MoU with their host communities. The objective of the MoU is to enhance the active participation of host communities in the benefits of the mineral's extraction. The MoU importantly provides a sharing formular for communities' participation in employment and procurement contracts, as 70% and 10% of overall employment and procurement contracts are reserved for the host communities and chiefs respectively. This has greatly enhanced the participation of community members in the Golden Star Resources, and strengthened their social license to operate.

Source: 2023 Field Data Collection

This study concludes that the absence of community development agreement in Ghana's local content laws and policies limits host communities' ability to demand for optimal development initiatives, and remains a significant gap in Ghana's local content framework.

Policy inconsistencies and absence of enabling environment

Ghana's existing local content implementation continues to face severe challenges, including policy inconsistencies and structural and systemic bottlenecks. For instance, despite the introduction of list of goods and services to be sourced locally to further the participation of Ghanaians in the mining sector value chain, there is a lack of policy coherence with respect to government industrial and manufacturing agenda. Support to local industries to provide mining goods and services that meet international standards remain non-existent. Furthermore, the business environment is largely inimical to business growth and success. High inflation, exorbitant import duty charges, unreliable and high cost of power, and fluctuating exchange rate impedes businesses, and negatively impact local suppliers' ability to competitively provide goods and services.

'Why can't government introduce a standardization and certification program for local suppliers to enable us to access low interest and import rates. These high rates are killing our businesses and making us less competitive'

- Local supplier

Global best practices dictate that local content policies must be combined with investments in local business capacity. Building capabilities of local businesses and suppliers is necessary to ensure they are able to take up opportunities unlocked through local procurement regulations. It also ensures the availability of local suppliers for mining companies.

Lack of financing opportunities in local content implementation

Local suppliers, particularly in developing economies, often face difficulties in upgrading their business operations to meet the high standards of mining clients, largely attributed to the difficulty in accessing finance at affordable interest rates. This financing gap has over the years limited the ability of local suppliers to compete favourably with external manufacturers and suppliers. Local suppliers in Ghana’s mining sector continue to face this financing challenge.

The 2019 Minerals Commission Report cites the high interest rate charged by commercial banks as a critical factor affecting local manufacturers and suppliers. This, according to the Commission, limits their ability to fully participate in the mining sector value chain, further undermining Ghana’s local content aspirations. On the contrary, in other jurisdictions, policies have been introduced to ensure local businesses have easy access to finance. For instance, in Ontario, to advance local participation in the mining sector value chain, the provincial government invested CAD 15 million to provide lending support to local firms to build their capacity to participate in procurement opportunities. Banks in the province have also been encouraged to provide concessionary interest rates to local businesses to promote supplier development. [36]

‘The Minerals Commission should start acting as a player in the sector to attract supply chain financing for local manufacturing firms by collaborating with commercial banks in the country’

- Mining Procurement Expert

This study therefore notes the absence of financing mechanism to support local suppliers, to adequately participate in Ghana’s mining sector, as a significant gap in Ghana’s local content regime, which requires urgent redress.

Box 3.4: Case Study of Zen Petroleum's Experience with Local Content Regulations and Practices in Ghana's Mining Sector

[36] Ramdoo, I. (2016). Local content policies in the mining sector: Approaches and lessons learnt.

Zen Petroleum's leadership is characterized by the deep and passionate entrepreneurial spirit of its founder and managing director, who started the company in 2008. The founder's first major opportunity in the sector arose from a fortuitous meeting with Goldfields, which led to the company beating industry giants such as Total Energies Ghana Ltd to win a contract in 2009 to partly supply oil to the Gold Fields' Tarkwa mines, mainly by offering to work for free for the first two years. From there, the company secured its first greenfield project contract to develop and operate a 250,000-Litre fuel depot facility for Adamus Resources Limited in 2010.

Over the years, Zen Petroleum has continued to expand its operations and services. In 2011, the company was appointed as a Castrol authorized distributor for Ghana, and in 2012, it won a contract as the sole supplier of fuel to Gold Fields' Tarkwa and Damang mines, which included taking over facilities and operating fuel storage facilities at seven distinct locations. In the same year, Zen Petroleum registered its office in Burkina Faso and officially began trading as ZEN Petroleum Ltd. They are now also present in Mali, Guinea, and Liberia.

As of now, Zen Petroleum has won contracts to supply fuel and services to Asanko Gold Ghana Adansi Mine, Newmont Ahato mine (36 million liters per annum), Perseus Mining Gh Ltd - Edikan mine (30 million liters per annum), and AngloGold Ashanti Iduapriem mine (25 million liters per annum), among others in Sub-Saharan Africa. It has also expanded its retail capabilities, with over 25 active service stations around Ghana.

Zen Petroleum has diversified into the provision of additional services, such as the supply of lubricants and services. It has won contracts to supply lubricants and services to African Mining Services (AMS), Perseus Mining Ghana Ltd., Kinross Chirano Mine, the Humming Bird Komana Project (Mali), and several other companies. In conjunction with OryxEnergies, the firm created ZEN Lubricants, and in association with WearCheck, it opened a lubricants and fuel analysis laboratory in Tarkwa.

Box 4 Continued: Case Study of Zen Petroleum's Experience with Local Content Regulations and Practices in Ghana's Mining Sector

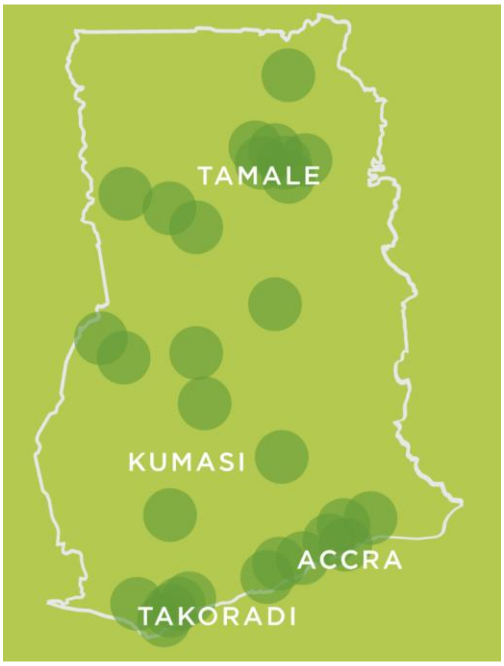


Fig 16: Zen Retail's Presence Across Ghana. Source: zenpetroleum.com

According to the Managing Director, the company's success, agility, and ability to adapt to changing market conditions can be credited to its investment in talent, flat organizational structure, and commitment to delivering world-class goods and services. Even though Ghana's Local Content Policy has been duly implemented since 2012, support to local companies or suppliers to effectively take advantage of opportunities presented by the policies remains limited.

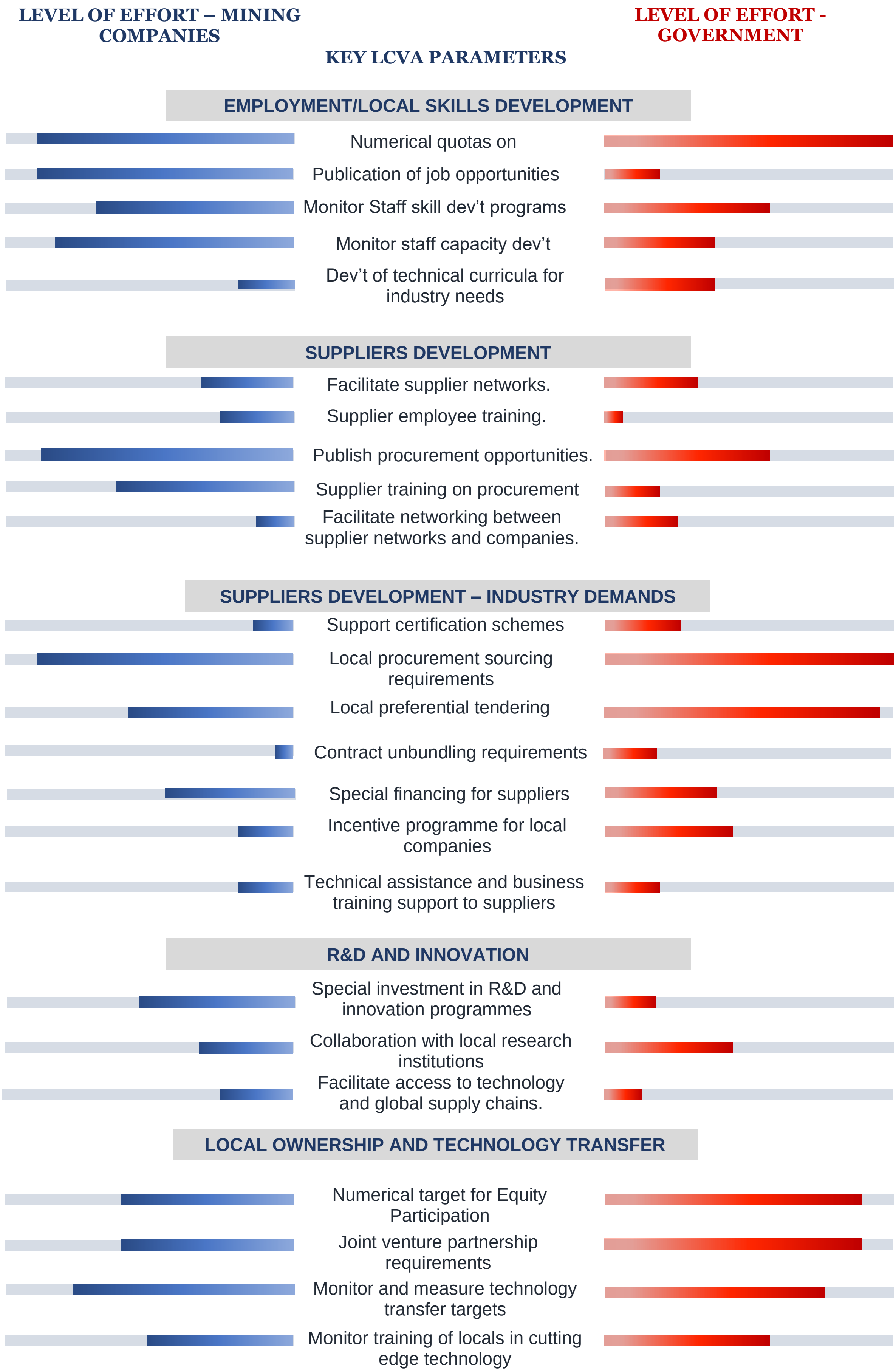
In October 2018, Zen Petroleum created Ladybird Logistics, a cutting-edge logistics firm with solely female drivers, aimed at making a difference in an ecosystem where trucking is a male-dominated industrial logistics field that is regarded as too onerous for women. What started with 11 women grew into a thriving enterprise with over 50 female drivers that earned international recognition. Ladybird sought to empower, equip, and encourage women everywhere to flourish in male-dominated sectors all across the mining value chain. Nevertheless, due to a lack of support from stakeholders beyond the optics of being affiliated with a gender-promoting project, the initiative is gradually winding down.

Source: Interview with ZEN Petroleum Ghana

Fig: 17 Ladybird Logistics' Truckers. Source: twitter.com/Ladybird Limited

- **Ineffective Business Facilitation Support for Local Companies:** Local companies typically face significant challenges when attempting to obtain approvals and licenses, including export licenses that could increase their size and revenue. Delays are common, and sometimes contracts are awarded only after payment of unapproved fees. This lack of support for local companies creates a disadvantage for them in the industry and further deters the entry of new local companies into the sector.

Fig. 3.5: Assessment of Government and Companies Efforts LCVA Implementation



3.6 Summary of Key Finding

Local Content and Value Addition (LCVA) policies implementation heightened in the immediate aftermath of the soaring prices of minerals on the global market in the 2000s when the benefits of this price boom failed to benefit mineral-rich countries. The study revealed that LCVA approaches used by mineral-rich countries globally include;

- Local employment quotas which prescribe employment percentages for locals during mining projects
- Submission of localization plans by mining companies aimed at building local capacity
- The use of visa restrictions as a tool to ensure skills and knowledge transfer
- Introduction of mandated quota system to increase the procurement of locally sourced/manufactured goods and services
- Introduction of R&D spending policies to obligate mining companies to pass on technology to local players

The study also identified the following LCVA policies in Ghana's mining sector, underpinned by provisions in LI 2431;

- Submission of localization plans by mineral right holders to demonstrate their commitment to training Ghanaians to occupy positions occupied by expatriates
- Reservation of unskilled and clerical/administrative roles in the sector for Ghanaians
- Introduction of specific employment quotas for expatriates at various stages of a mine project
- The use of visa restrictions to advance Ghanaian participation in the sector
- Provision of list of goods and services that should be sourced locally

Finally, the section identified some gaps in Ghana's local content implementation, including;

- Absence of a gendered quota in Ghana's local content laws
- Absence of legally-mandated community development agreements to maximize benefits to host communities
- Policy inconsistencies and absence of favourable environment hindering local content practices in Ghana
- Lack of financing opportunities to promote local supplier development

3.7 Recommendations

- **Improve Government Support for Local Companies in the Mining Sector:** The government's efforts to prioritize and protect local companies in the mining sector need to be complemented by more effective systems that provide business facilitation support. Expedited licenses and other incentives should be offered to local companies to enable them to compete effectively with foreign companies. Additionally, Embassies and High

Commissions in other countries should provide support for Ghanaian companies operating overseas in the region, which will ultimately boost Ghana's socio-economic development.

- **Promote Corporate Governance and Financial Discipline Education for Young Business Owners:** Young and up-and-coming business owners need to understand the importance of corporate governance and financial discipline in building a successful business, specifically within the context of Ghana's mining sector. The Chamber of Mines can play a critical role in offering modules that educate them on these subjects. Business success can be attributed to investing in the right people and adopting a suitable organizational structure. Therefore, local companies should be encouraged to invest in their employees to build strong and successful businesses. This would dispel the perception of ineptitude associated with Ghanaian companies and increase demand for local service suppliers in the mines.
- **Encourage Mining Companies to Drive Local Content Efforts:** Mining companies need to be encouraged on the importance of the different elements of local content and how they can contribute to the growth and development of the mining industry to their benefit. As a result, local content efforts would be driven by mining corporations rather than the Mineral Commission, considerably enhancing the efficacy of the policies. This strategy will ensure the influx of companies into the sector as well as the availability of competent local enterprises to supply trustworthy and quality supplies and services, thereby preventing suppliers with political ties and subpar products from dominating the local market.
- **Reserve Non-Manufacturing Supply Contracts Wholly for Ghanaians:** Non-manufacturing supply contracts are the easiest to limit to Ghanaian suppliers since they essentially entail the purchase and sale of the required items. The Procurement List, introduced by the Minerals Commission in 2014, can be expanded to include all non-manufacturing supplies, even though this should be done in a more staggered manner to contribute to local business development, necessary support a scale up.
- **Encourage Mining Companies to Hold Up Model Local Companies:** Mining companies should hold up model local companies as examples to encourage more companies to enter the sector and demonstrate the standards they should aspire to replicate. Zen Petroleum can serve as a role model to keep standards high and sustainable, ensuring that local companies can continue to operate outside the country even when the mines in Ghana close down.
- **Increase Transparency in the Award of Licenses and Approvals:** The procedures in place to ensure the fair award and approval of licenses and permissions should be strengthened to guarantee that these determinations are based on merit rather than kickbacks, political affiliations, or other malpractices. This measure will level the playing field for local enterprises to compete fairly against international companies and contribute to the local mining industry's development.

3.8 Conclusion

Ghana's pursuit of LCVA in the mining sector, as captured in LI 2173 have sought to increase local employment and procurement. While local content employment policies have largely worked, albeit structural and systemic challenges, Ghana is yet to realize significant benefits from local procurement. This worrying development is largely caused by the absence of an enabling environment for supplier development. The findings of this study shows that there is an urgent need for an elaborate local content policies situated in the broader economic plan to provide local suppliers and manufacturers the needed support to be able to meet the high industry standards. The study also suggests that the procurement list should be reviewed annually to ensure it meets the manufacturing demands of local players.

4 Assessment of Linkages between Ghana's Economy and Non-Fiscal Revenue Pathways in the Mining Sector

This section examines

- Assessment of Opportunities presented by Mining Sector Forward, Backward, and Horizontal Linkages
- Case Study of Linkages between Host Communities and Mining Industry

4.1 Introduction

"For the mining sector to improve its contribution to broad-based development, it must be better integrated into the national and regional economic fabric through linkages." – ***The Africa Mining Vision, 2011***

All over the world, countries that have been able to optimise their benefits from mining and other resource extraction activities are those that participate in the extraction either directly or indirectly across the industry value chain. Examples are the US, Canada, the U.K. and Australia. In Africa, South Africa and Botswana can be cited as good examples. Countries usually mine for any or both of the following reasons: for revenue maximisation or value retention. Those that turn to focus almost exclusively on revenue maximisation for some reason, tend to deploy fiscal incentives (tax expenditures) to attract investments into their natural resource sector. This is in the hope that, increased investments will deliver higher fiscal revenues.

However, analysis by UNCTAD (2005) has shown that, Africa is not benefiting much from the inflow of Foreign Direct Investments (FDI) into the extractive industry. Rather, the outflow of profits is extremely higher and disproportionate to the capital received through these investments.[37] To attract FDI into the mining sector, the main decision criteria have been: a stable legal and fiscal framework, which includes a mining code, contractual stability, a guaranteed fiscal regime, profit repatriation, and access to foreign exchange. Strangely, local content has not been part of the main considerations, depriving FDI recipient countries like Ghana, value retention opportunities. This is why it has become imperative for natural resource dependent countries like Ghana to begin to think through ways and strategies to retain a greater share of the value created, rather than being content with the role of rent collectors in their extractive industry.

The new thinking on value retention requires a tactical shift away from the exclusive focus on tax revenues to seizing opportunities to integrate the industry into the rest of the national economy, and through that, retaining greater non-fiscal benefits from their resources.

[37] See https://unctad.org/system/files/official-document/gdsafrica20051_en.pdf

4.2 Assessment of Forward, Backward and Horizontal Linkages

A critical analysis of the country's Minerals and Mining (General) Regulations 2012 (L.I. 2173) and the Minerals and Mining (Local Content and Local Participation) Regulations 2020 (L.I. 2431), along with the mining procurement list, established by the sector regulator to operationalise Ghana's local content objectives, reveals gaps that could, if explored, derive substantial benefits to the state. The analysis shows that, the Local Content L.I. almost exclusively focuses on the backward linkage opportunities to the near exclusion of the forward linkage opportunities. This is obviously because Ghana has never developed a vision of an integrated mineral sector, until recently. Indeed, local content consideration is relatively new in Ghana's mining industry. Even though the country's Minerals and Mining Law PNDC Law 153 of 1986 provided some inclinations in this regard, by vaguely requiring that, mining companies procured inputs from Ghana to the maximum extent possible. This rendition did not make local content considerations in mine procurement, mandatory. The successor to the 1986 industry law, the Minerals and Mining Act, 2006 (Act 703), strengthened the provision, under section 105, dealing with Preference for Local Products and Employment of Ghanaians, by requiring that a holder of a mineral right, SHALL in the conduct of mineral operations and other related activities, to the maximum extent possible, and consistent with safety, efficiency and economy give preference to goods and services of Ghanaian origin. L.I. 2431 subsequently became the set of regulations to pursue the dictates of this provision.

Backward Linkages

Backward linkages in the mining sector refers to the input supply (both goods and services) from domestic sources for mineral extraction. The concept is gaining a great deal of prominence because it diffuses the enclave nature of the industry, and helps to create mine-dependent jobs outside the mine, and also to retain some value within the local and the larger Ghanaian economy, especially as it involves deliberate efforts to create new industries or expand existing ones to support mining activities.

Even though LI 2431 emphasises employment and manufacturing (industrialisation) as the main objectives of Ghana's local content policy, progress in this regard has been sluggish. This view is supported by Ananeh-Frempong (2022), who argued that, even though Ghana's local content policy has increased local participation in the gold mining industry, the lack of investment in the development of the technological capacity of firms and research institutions has led the firms that supply inputs for gold mining, to import most of the items on the procurement list, without adding any value. What this means is simply cost escalation for the companies, as the Ghanaian suppliers will certainly add their profit margins to the goods supplied. Besides, by sourcing the supplies outside of the Ghanaian economy, the suppliers are shipping jobs away from Ghana to the countries of origin of the products they supply, defeating the employment and manufacturing objectives of the local content policy.

A further confirmation is provided by the fact that, the government's flagship industrialisation programme, 'One District, One Factory (1-D-1-F)', is not aligned with the local content opportunities created by the mining procurement list. The expectation had been that, the Ministry of Trade and Industry, spearheading the implementation of Ghana's industrialisation programme, will leverage on the mining procurement list to develop the country's manufacturing capability to deliver the required mine inputs. This will in turn create jobs and provide sustainable incomes for the jobless, particularly among the youth and women in mining host communities.

Currently, only a few local companies have developed the manufacturing capability to supply inputs to the industry. These include Interplast, manufacturers of HDPE and uPVC pipes, and drainage accessories to the industry; Carmeuse, manufacturers of caustic lime and soda to the industry, West Africa Forgings Ltd. supplying cannon balls and grinding media, and a few electrical cable manufacturing companies. Companies such as Zen Petroleum, though do not produce their base product here, can demonstrate some level of value addition through blending of petroleum products with additives to produce more efficient and environmentally friendly products. The blending processes, the tanker delivery services, and the stock management facilities are known to have created employment for hundreds of Ghanaian youths, and in the particular case of Zen, substantial numbers of women.

Forward Linkages

Forward linkages in the extractive industry refers to the further processing of minerals, oil or gas prior to their export. They are sometimes referred to as beneficiation, value addition, refining or polishing, depending on the resource involved. Forward linkages enhance the export value of natural resources, and has a high capacity to create jobs. When the refined or processed resource is put to use in the domestic economy, it can have ripple effect on other economic sectors. Currently, there is very little downstream beneficiation in Ghana's mining industry. These are mostly the output of the Artisanal and Small-scale (ASM) mining sector, some of which are being refined locally and used in domestic jewellery making. Ghanaian jewellers have often complained that they have had to rely on scrap gold, and recently on the ASM sector for raw material supply. This is because the output of the large-scale sector is mostly smelted into bars and exported to refineries and further value addition abroad.

Globally, evidence suggest that beneficiation holds the key to the integration of the gold industry into the local and national economies. It has the potential to create jobs, create new tax opportunities for national government, and generate revenues from Business Operating Licences, property rates etc. for the local government.[38]

The lack of downstream beneficiation in Ghana's mineral sector is largely the result of the absence of a clear objective around minerals extraction in the country. An objective that anticipates an integrated gold sector, for instance, would be backed by a policy and law that

[38] Chatham House (2014). Mineral Resources and Beneficiation in Africa: Initiatives and Impacts

prohibits the export of gold or any other mineral for that matter, in its raw state, and will provide incentives for processing and further beneficiation. In the current race to capture critical minerals in support of energy transition, Ghana has been lucky to have discovered lithium deposits in commercial quantities in the Central Region. It does not however appear that the country is minded to ensure some level of processing of the country's lithium. At least, no such policy has been contemplated. The leaseholder does not also intend to process the mineral locally. So just like gold and other minerals, this valuable mineral will be shipped out of the country in its raw form, and all opportunities for value retention within the Ghanaian economy would be lost.

Of course, the recent establishment of the Ghana Integrated Aluminium Development Corporation (GIADEC), and the Ghana Integrated Steel Development Corporation (GISDEC) are encouraging signs that point to a turn-around in policy, but so far it has been a lot of rhetoric and little action. In the particular case of the steel industry, it's ironic that the country's manganese deposits, which would be needed to blend its iron deposits to produce steel, are being shipped in their raw form to China. This development and ongoing practice raise serious questions about policy consistency.

4.3 Linkages between Host Communities and the Mining Industry

Available literature on integration of the mining industry into host communities' economy suggest that, Ghana's mining industry exists largely as an enclave activity, not linked to both the local, and national economies. This takes away opportunities for further value creation and retention within the local economy and by extension, the national economy.

Manteaw, E.S. (2018) has proposed the Growth Pole strategy as one of the most viable approaches to integrating mining into the local economy.

Box 4.1: Growth Pole Theory

The Growth Pole theory was first propounded by French economist, François Perroux in 1950, was further sharpened in later works of development economists, and finally evolved into a concept whose meaning is somewhat at variance with what was originally posited by Perroux.

While Perroux had conceived a growth pole to be a focus of economic development in an abstract economic space, it was interpreted by his followers, particularly Jacques Boudeville, to be a focus of development in geographic space.

Growth pole theory, as originally formulated, assumes that growth does not appear everywhere at the same time, but manifests itself around 'poles' or fulcrums of growth (Perroux, 1950; 1955). With variable intensities, the growth spreads by different channels and eventually affects the economy as a whole (Vanneste, 1971). In his latter writings, as Vanneste (1971) points out, Perroux refined his concept of growth pole as a dynamic unit in a defined environment. The unit is simple or complex: (a) a firm, or (b) group of firms not institutionalized, or (c) group of firms institutionalized, such as private and semi-public undertakings. Based on these features of the growth pole concept, other authors (Davin, et al,1950) associated a functional attribute to the concept. They argued that a growth pole is formed when an industry, through the flow of goods and incomes which it is able to generate, stimulates the development and growth of other industries related to it (technical polarization); or determines the prosperity of the tertiary sector by means of the incomes it generates (income polarization); or stimulates an increase of the regional economy by causing a progressive concentration of new activities (psychological and geographical polarization). To the extent that the growth pole concept has a functional character, Vanneste (1971) argues that it would be wrong to neglect the spatial aspect and the geographical implications of the concept.

Using Prestea Huni Valley as a case study, he identified the following key sectors of the local economy as having the potential for exponential growth, with capacity to cascade into other sectors and create increased job opportunities for the people of the municipality, especially women and youth:

- Agriculture and Agri-business
- Mining
- Tourism

The strategy emphasises some mutually beneficial relationships that could be fostered among these sectors in ways that create new job opportunities, away from the mine. Particularly, the agricultural potential within the local economy could be harnessed to provide food and other input into the mine. Agribusiness, especially in the case of oil palm processing could be leveraged to provide other mine inputs, such as activated carbon from palm kernel shell. The residue (palm kernel cake) from the processing of palm kernel into oil extracts can also support poultry feed processing to bring down the cost of poultry, a known barrier to accessing markets within the mining and hospitality industry.

The Agriculture and Agri-business Growth Pole

In spite its dominance in the local economy, the agricultural potential of PHVM has not been fully explored, according to the study undertaken by Manteaw,E.S. for the West Africa Governance and Economic Sustainability in Extractive Areas project. As an important economic activity, with a high propensity to serve as a source of employment especially for youth and women, Agriculture is prioritised as a growth pole. Opportunities for value addition and market accessibility are all evaluated and strategies developed to leverage on them. The particular clusters within the agriculture sector that are identified for special focus are rice production, oil palm production, poultry and piggery. While rice production is expected to enhance the municipality's food security, it will also create opportunities for allied businesses such as milling, production of breakfast cereals, packaging, branding, and marketing. Oil palm also provides opportunities in the downstream (agro processing) for cooking oil, margarine, cosmetics, soap making, animal feed and activated carbon processing.

Oil Palm - The game changer for Local Economic Development in PHVM

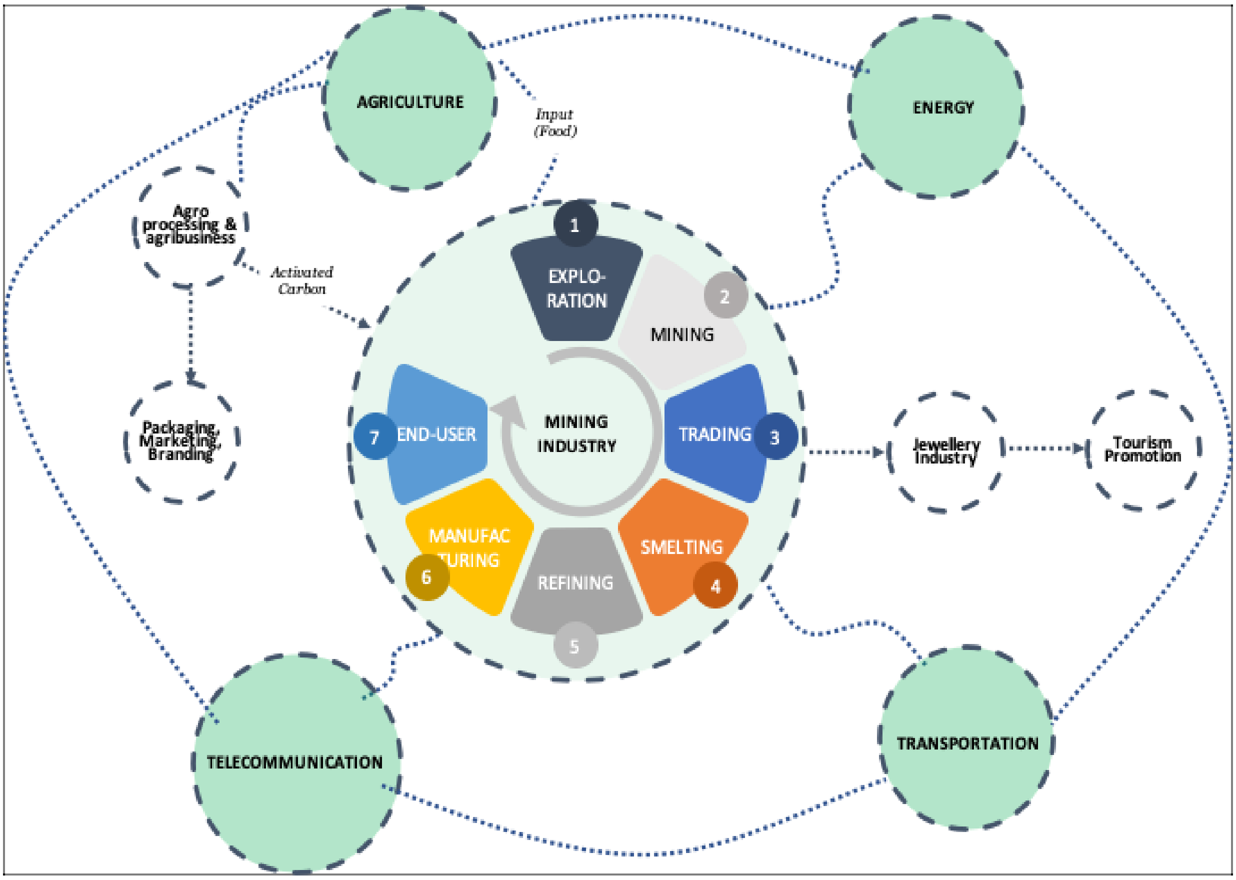
The Mining Sector Growth Pole

Based on available literature, even though mining remains a dominant economic activity in resource-rich communities, opportunities for integrating it into the local economy and generating mining induced local economic growth has largely been missed. On the contrary, host communities have largely focused on local employment opportunities; a share of mineral royalty disbursed by central government; and Corporate Social Responsibility (CSR) programmes of the mining company.

From a strategic development perspective, an attempt can be made to ensure that appropriate linkages between the strategic economic clusters (growth poles) and other sectors of the local economy are established. For example, between mining and industrialization; mining and tourism; and between agriculture and industrialization. The main development clusters are derived from a SWOT analysis of the local economic environment, and are directed at utilising existing strengths and opportunities through strategic programmes and interventions that will minimize the threats, and address the weaknesses in the local economy. For instance, in Manteaw (2018), the proposed strategic development framework identified two main clusters around which the holistic development of PHVM can be quickly achieved. These are Agriculture and Mining.

The figure below shows the economy-wide benefits to be derived from the establishment of appropriate and strategic relationship between the two selected economic clusters and other economic sectors.

Fig 4.2: PHVM Growth Pole Structure



Source: Author's Construct based on the Growth Pole Theory

The strategic framework is designed to deliver the following development outcomes:

- Optimum exploitation of the agricultural potential of PHVM;
- Sustainable jobs, especially for women and youth;
- Sustainable income levels;
- Broadened local revenue base;
- Integrated and sustained local economy;
- Use of palm kernel shell for activated carbon

The opportunity, as already indicated, exists to process the shell of the palm kernel into activated carbon, but this has so far not been utilised. The spend trend of the mining industry, according to data supplied by the Ghana Chamber of Mines, reveal that, mining companies spend between US$3million and US$6million every year on imported activated carbon. This means, if mineral-rich communities could leverage its palm kernel shell to process activated carbon for the local mine as a starter, and subsequently to the entire industry, with support from the 1D1F initiative, substantial mining related income benefits would be retained in the local economy and will help reduce youth unemployment.

Table 4.1: Mining industry import expenditure on activated carbon

	2009 (USD)	2010 (USD)	2011 (USD)	2012 (USD)	2013 (USD)	Total (USD)	Average (USD)
Activated Carbon	**3,301,152**	**5,485,961**	**6,286,867**	**6,980,077**	**5,368,296**	**27,422,353**	**5,484,471**

4.4 Linkages between Government Flagship Programmes (Manufacturing) and Mining Industry

The national policy context always provides guidance on what strategic alignments are necessary to achieve added benefits for local and the national economy beyond fiscal revenues. Analysis of the current context identified two major government policies/programmes as potential anchors for the integration of mining into both the local and national economy. These are: One-District-One-Factory (1D1F), and Planting for Food and Jobs.

One District, One Factory

The One-District-One Factory initiative was a manifesto pledge by the New Patriotic Party, during the 2016 general elections. Having won the elections, the new government launched the programme in June 2017. Its prime objective is to address the challenge of slow economic growth at the district level through a deliberate and concerted industrialisation programme nationwide. It is intended to empower communities to utilise their local resources in manufacturing products that are in high demand both locally and internationally. In other words, 1D1F will serve as both import substitution and export-oriented programme that will create jobs, sustain agricultural incomes through value addition, and help to improve the country's balance of trade position.

The programme was expected to facilitate the creation of between 7,000 to 15,000 jobs per district and between 1.5 million and 3.2 million nationwide by end of 2021. However as at December 2021, only 156,000 out of the targeted 1.5 million – 3.2 million jobs have been created (www.pulse.com.gh/news/local/one-district-one-factory-has-created-over-156,000-jobs/alan/fx68pmg)

The programme is reported to have facilitated some 232 projects, established 76 companies, 28 new factories, 48 rehabilitation / expansion of existing factories as at January 2022 (https://www.statista.com/statistics/1294415/progress-of-the-one-district-one-factory-initiative-in-ghana/)

It is being delivered through a special purpose coordinating secretariat under the Office of the President. It provides the following support packages:

- Business support services;
- Business assessment and assistance with developing a growth strategy;

- Capacity building, Mentoring and coaching;
- Provision of networking opportunities;
- Assistance with financial planning and financial management;
- Assistance with regulatory and legal compliance;
- Links to strategic partners for market and community access facilitation;
- Sector specific technical support including project management, quantity surveying and engineering services etc.

Financial support for 1D1F projects ranges from USD 50,000 to USD 5 million. This is based on project size and operational categorisation. The programme promises to make adjustments where appropriate to accommodate projects outside the stipulated support bracket.

Credit to businesses will come in the form of:

- Investor matching;
- Direct credit;
- Equity financing;
- Long- and short-term trade financing;
- Long- and short-term asset financing;

Application for financial credit support is categorised according to the investment required and number of people to be employed as indicated below:

Category	Investment required
Micro scale Enterprises	≤ US$50,000
Small scale Enterprises	≤ US$100,000
Medium scale Enterprises	≤ US$1,500,000
Large scale Enterprises	≤ US$5,000,000

Though the programme targets almost all sectors of the national economy, it prioritises the following strategic areas / activities:

- Input/Raw material producer groups;
- Agro processing and agri-business
- Textiles and Clothing
- ICT
- Pharmaceutical and cosmetics
- Waste management

- Distribution and trading
- Tourism, Arts and Crafts

It is apparent that most mining host communities qualify for support under the agro processing and agri-business category on account of their comparative advantage in agricultural production, especially oil palm, and the opportunities it presents for value addition. Even though there is no express mention of supporting value addition in the mining sector, jewellery making, using locally produced gold could qualify under 'tourism, arts and crafts'.

Therefore, this study emphasizes that there are a lot of unexplored and untapped opportunities that can be facilitated by the 1DIF vehicle to promote industrialization and value addition in the mining sector. The study identified the Spring and Bolts Limited in Kumasi as the only company under the initiative that is providing mining-related services.[39] Multi-stakeholder efforts from Ministry of Trade and Industry, GIPC are therefore required to increased investment in the mining sector through this initiative. Furthermore, with majority of host communities also being agrarian communities, the policy can be used to promote agro-processing in resource-rich communities, thereby diversifying their economies.

Planting for Food and Jobs

The 'Planting for Food and Jobs' is a five-year agriculture intensification and modernisation programme introduced by the current NPP administration. It is intended to help improve the country's food security, reduce the country's food import bill, and create jobs for Ghanaian youth. The policy is built on the following five main pillars:

- Supply of Improved Seeds to farmers at subsidized prices (50% subsidy)
- Supply of fertilizers to farmers at subsidized prices (50% price cut)
- Free extension services to farmers (1200 extension officers from the five main agric colleges already enrolled onto the program. Additional 4,000 extension assistants to be mobilized)
- Marketing opportunities for produce after harvest, (arrangements have been made to offer ready markets for farmers who will be participating in the campaign)
- E-Agriculture (a technological platform to monitor and track activities and progress of farmers through a database system).

It focused mainly on:

- Maize
- Rice
- Soybeans

[39] https://dailyguidenetwork.com/nana-opens-1d1f-factory-in-kumasi/

- Sorghum
- Vegetables- Tomato, Onion, Chili pepper

An agriculture and agri-business sub-sector study undertaken at the instance of the WAGES project ranked the top three crops produced in the Prestea Huni Valley Municipality as Oil Palm, Cassava and rice (arranged in order of dominance). Rice farmers in Prestea Huni Valley therefore could take advantage of the Planting for Food and Jobs to expand their production, while the 1D1F initiative provides opportunities for milling, packaging and marketing. Even though oil palm is not included in the priority list, the sub-sector analysis point to opportunities that can be exploited under the 1D1F programme.

4.5 Linkages between the Mining Industry and the African Continental Free Trade Agreement

The African Continental Free Trade Agreement is one of the flagship projects of the African Union Agenda 2063. AfCFTA aims at propelling economic growth, increasing employment and reducing poverty through deepening regional integration and facilitating cross-border movements of goods and services. It is a highly ambitious trade agreement, which seeks to eliminate trade barriers on the continent to significantly boost intra-African trade, with particular emphasis on trade in value-added products. Furthermore, AfCFTA seeks to encourage trade across all sectors of the Africa's economy, including critical sectors such as energy, mining, petroleum, digital trade and agriculture.[40] By creating a continent-wide market of 55 countries consisting of 1.3 billion people and a combined Gross Domestic Product (GDP) of US$3.4 trillion, AfCFTA would remove tariffs on about 90 percent of goods, while reducing trade barriers in services. [41]

From the foregoing, it is evident that AfCFTA presents a unique opportunity for African countries to access its unlimited market across all sectors, including the mining sector. With Africa been endowed with abundant deposits of mineral resources and having a thriving mining industry, which significantly contributes to countries exports, revenues and overall GDP, AfCFTA additionally presents a trading opportunity in a sector whose total output in 2019 was $406 billion. [42]

Having been a mineral extraction country for centuries, and Africa's largest gold producer, the Ghanaian economy is well-placed to capitalize on AfCFTAs opportunities in the mining sector. With the right policies, Ghana can optimally tap into the procurement and employment opportunities. This study recommends that policies should primarily aim at building the technical capacity of Ghanaians to take on sophisticated technical roles occupied by non-Africans in the mining industry, and most importantly leverage on the industrialization agenda to build local

[40] See https://au-afcfta.org/

[41] See https://www.worldbank.org/en/topic/trade/publication/free-trade-deal-boosts-africa-economic-development

[42] See https://www.aljazeera.com/news/2018/2/20/mapping-africas-natural-resources

industries capable of providing industry-standard goods and services. This is particularly essential in providing opportunities for Ghanaian suppliers to have access to the AfCFTA market. The study further notes that Ghana can also leverage on its unique position as the host of the AfCFTA secretariat to advance this cause.

4.6 Linkages between Mining Industry and other Sectors (Tourism and Agriculture

In mineral-rich developing economies, a negative view of the mining sector has emerged questioning the positive linkages between mineral extraction and other sectors of the economy. This debate remains unresolved as mineral extraction in many resource-rich developing economies continues to be an enclave sector, limiting its interconnectedness with other sectors, including agriculture and tourism.

Agriculture

Economic diversification of mineral-rich communities has taken center stage of most economic project initiated and implemented by mining companies. Given the arable nature of Ghana's land and the dominance of agricultural sector in rural development, including mineral-rich communities, there exist a strong potential linkage between the mining sector and agriculture. Thus, the mining sector has a strong potential of serving as a catalyst for sustainable large-scale agricultural activities, provided the right policy framework and investment are in place. For instance, as mining companies in Ghana are some of the biggest landowners, they have an opportunity **to utilize unused lands for sustainable and productive agricultural activities – whereby agriculture is a standalone business within the mining company**. Alcoa farmlands, which belongs to Alcoa Mining Group in Australia, has the same financial targets as other subsidiaries. [43] A significant unintended outcome of mining companies engaging in agriculture is the reversal of habitat degradation, thereby reducing mines operational cost in land reclamation. This study is making this recommendation (instead of recommending that unused mine lands be availed to community members) to avoid a situation where such lands turn into illegal mining areas, as happened previously in Ghana.

In instances where mining companies are reluctant to take lead role in agricultural activities, this study recommends that mine companies in Ghana form joint ventures with promising farms or farming groups in their host communities, as has been done by Anglogold Ashanti in Australia. [44] Based on their extensive business expertise, mining companies can support the economic development of host communities by turning agriculture projects into sustainable and profitable ventures.

Furthermore, in their economic diversification approaches, mining companies can leverage on their strong economic position to establish agro-processing companies for

[43] See https://impactagri.com/agribusiness-adds-value-to-the-mining-industry/
[44] Seehttps://impactagri.com/agribusiness-adds-value-to-the-mining-industry/

communities, thereby creating sustainable jobs in mineral rich communities. Mining companies can also facilitate the establishment of outgrower schemes in mining communities to provide ready market for farmers in host and adjoining communities – which will incentivise more people to venture into agriculture.

Tourism

Similar potentials exist in Ghana's buoyant tourism industry. Having rebounded after the COVID-19 pandemic, Ghana's tourism sector has evolved in recent years, with both domestic and foreign tourism activities booming exponentially. The tourism sector is acknowledged by government as a critical pillar in Ghana's development journey, particularly in the areas of economic growth, job creation and stimulation of the local economies. In fact, in 2018, the sector accounted for 4.8% of the Ghana's GDP, only contributing less to the economy than cocoa, gold and oil, while providing direct and indirect jobs for over 600,000 Ghanaians.[45] Despite its demonstrated contribution to the Ghanaian economy, significant opportunities abound for Ghana to increase its tourism competitiveness, including mining-induced tourism activities.

The nexus between tourism and mining is a seldomly explored area in Ghana, despite both sectors depending on products and services availed by nature. While tourism activities can thrive on existing mining infrastructure, including the opening up of hitherto remote areas with tourism potentials, significant opportunities also exist with the use of decommissioned mines for tourism purposes. In Germany, many of its decommissioned coal mines have been turned into tourist hotspots, providing people with near-experience of underground mining.[46] In Missouri, abandoned mines provide additional adventure to tourist travel itinerary. [47] This study therefore opines that, as a traditionally mining country, Ghana stands to benefit greatly if the nexus between mining and tourism is explored and harnessed properly.

A collaboration between the Ghana Tourism Authority and the Ghana Chamber of Mines is proposed in furtherance of this initiative. Using decommissioned mines for tourism purposes will not only expand Ghana's tourist hotspots thereby creating additional jobs in the sector, but will also aid in projecting Ghana's mining heritage.

Again, downstream beneficiation such as jewellery making, provides opportunities for promoting tourism in mining communities. This could be through the periodic organisation of gold jewellery fairs and exhibition to showcase and sell locally produced gold jewellery and souvenirs; construction of a museum of mining, to showcase the history of mining in the country, and in a particular district. The museum could host an auditorium where videos documentaries on mining could be shown as part of the tour package. The jewellery fairs could be organised to coincide with local cultural festivals or prominent national events such Independence Day celebrations.

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[45] See https://gipc.gov.gh/tourism/

[46] See https://www.weforum.org/agenda/2019/06/germany-is-turning-its-old-mines-into-a-tourist-hotspot/

[47] See https://matadornetwork.com/read/abandoned-mines-now-visit/

4.7 Summary

The mining sector has traditionally been viewed as an enclave sector with limited linkages between other critical sectors. This chapter of the study explored and highlighted the vertical and horizontal (potential) linkages of the mining sector and the overall Ghanaian economy. The study concludes that the local economies of host communities and the overall Ghanaian economy stands to benefit greatly if appropriate policy measures are instituted to adequately link the sector with other critical sectors of the economy, including agriculture and tourism sectors. Furthermore, with the right policy framework, Ghana can leverage its extensive experience in the mining sector to take advantage of the opportunities presented by AfCFTA. The study also calls for collaboration between Minerals Commission and ministries in-charge of agriculture, trade, telecommunication and banking to ensure that the mining sector is fully integrated into other critical economic sectors of the Ghanaian economy.

5 Gender Based Assessment of Ghana Local Content and Participation Policies: Women and Youth Participation

This section covers

- Barrier assessment to identify the challenging barriers inhibiting the meaningful participation of vulnerable groups in the mining sector

5.1 Barrier Assessment of Vulnerable Groups in Ghana's Mining Sector

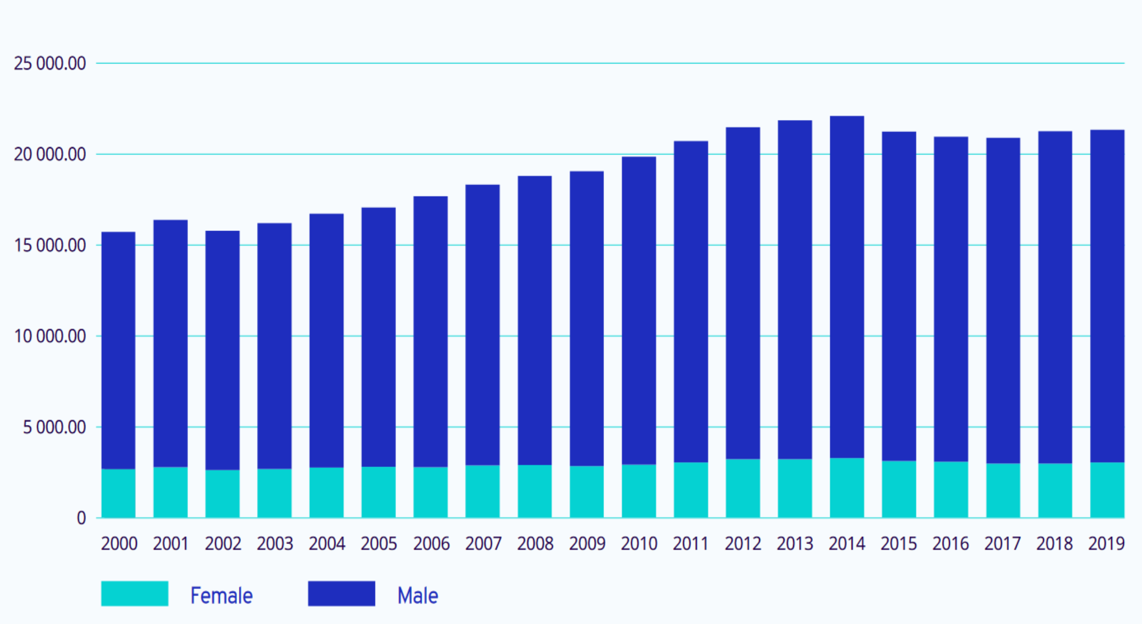
Background and Context

For centuries, Large Scale Mining (LSM) and Artisanal and Small-Scale Mining (ASM) have served as a source of livelihoods for millions of people living in mineral-rich countries and communities. Yet women, despite their enormous contribution to minerals extraction, have been largely excluded from the mining sector value chain, and continue to face barriers and discrimination to decent and dignified work in the mining sector today. Globally, 60 countries continue to have prohibitive laws on women participation in the mining sector – with majority of them in Sub-Saharan Africa. In fact, estimates show that a third of African countries still have laws prohibiting women from being employed in the sector – including Nigeria, Morocco, Tunisia and Sierra Leone. It is instructive to note that Ghana had a similar legislative provision until 2003. [48]

Consequently, women are underrepresented in the mining sector compared with other industries. The World Bank estimates that women constitute 8 to 17% of the mining workforce globally.[49] In a similar study, the International Labour Organization estimates that of the 21.4 million workers employed in the mining and quarrying sector globally in 2019, 18.3 million people representing 85.5 percent were males while 3.1 million representing 14.5 percent were women. The report further highlights that women employment in the sector has remained relatively low, despite the steady growth of employment in the sector, as depicted in the figure below.[50]

[48] NRGI (2021). Women in Mining: A History of Legal Invisibility and Exclusion https://resourcegovernance.org/blog/women-mining-history-legal-invisibility-and-exclusion
[49] Penny Bamber, Vivian Couto, and Karina Fernandez-Stark, "Industry 4.0 in developing countries: The mine of the future and the role of women," World Bank, January 28, 2019, worldbank.org.
[50] International Labour Organization (2021). Women in Mining: Towards Gender Equality. Geneva. https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_821061.pdf

Fig 5.1: Global Mining Sector Employment, by Gender (figure in thousands)



Source: International Labour Organization (2021). Figures based on estimates collected from member countries, and likely to exclude employment data from the Informal and ASM sectors.

For instance, in Chile and Peru, where the mining sector is a critical economic sector, only 10% of the mining sector workers are women, with Sweden being an exception with women employment rate in the mining sector at 25%. Furthermore, despite women constituting smaller percentage of total mining workforce, available data indicates women in the sector primarily dominate unlucrative clerical and administrative positions, which are susceptible to job cuts and redundancy. Despite Sweden's relatively high female participation in the mining sector, 73% of clerical workers are women, while females constitute 52% of administrative and clerical positions in South Africa. [51] Of severe concern is women participation in leadership positions in the sector. The drop-off from junior level to executive positions for women in the mining sector remains worryingly low. Among the S&Ps 500 companies in 2020, none of the 30 female CEOs comes from the mining sector, while women representation in C-suites positions within mining company was 13 percent globally.[52]

Women marginalisation in the mining sector is not only limited to employability. Women employed in the mining sector continue to face discrimination with respect to wages. For instance, in the ASM sector, women only earn a quarter of the earnings of their male counterparts in the same

[51] Intergovernmental Forum (2022). How will women fit into the mining workforce of the future? https://www.igfmining.org/women-mining-workforce-future/

[52] Katie Darden and Taylor Kuykendall, "Despite diversification efforts, fewer than 1 in 5 mining leaders are women," S&P Global, June 19, 2020, spglobal.com.

role.[53] In developed countries such as Australia, the basic salary for a female worker in the Large-Scale mining sector was 10.4 percent less than males in 2020. The report concludes that the gender pay gap in the mining sector is higher than the national average. [54] While women occupying non-technical and clerical roles in the mining sector accounts for the gender pay gaps, enough evidence exist to show gender salary disparity in similar roles.

Women are not the only marginalized group in the mining sector. Persons with Disability face similar barriers in fully participating in the mining sector. The World Health Organization estimate that over 1 billion people constituting 15% of the world's population live with disability, with a significant number of them residing in lower-income countries. The United Nations Convention on the Rights of Persons with Disability (CPRD) reinforces the social and economic right of PwDs to engage in dignified and fulfilling jobs. Yet, Persons with Disabilities, like women, continue to face systemic and structural obstacles in the world of work – as they require special needs to facilitate their full participation at the workplace. Multiple studies have shown disability decreases the probability of entering the job market globally, in both developed and low-income countries. [55]

This exclusion is further heightened in the mining sector as a result of the unfriendly and inaccessible working environment. Consequently, there are limited suitable jobs that can accommodate persons living with disability in the mining sector globally. For instance, aside clerical and administrative jobs, participation in actual mining activities such blasting, driving, drilling, extraction etc. will generally not be considered as suitable employment for persons with disability. Furthermore, the general perception that the mining sector is risky, due to associated occupational hazards and injuries, also serve as a demotivation for persons with disability to participate in the sector. [56]

Similar to narratives on women and persons with disability, young people participation in the mining sector is largely constrained. The lack of appropriate skills and knowledge and extensive experience are notable barriers facing young people in the mining sector.[57] For instance, in Ghana, due to the lack of requisite technical skills and the accompanying difficulty in gaining employment in the Large-Scale Mining sector, youth participation in the illegal *'galamsey'* and informal mining sector is significantly high, despite its unsafe nature. [58] Furthermore, young

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54 WGEA (Workplace Gender Equality Agency). 2021. Australia's Gender Pay Gap Statistics.
———. n.d. "Mining within All Industries". WGEA Data Explorer database.

55 https://www.who.int/news-room/fact-sheets/detail/disability-and-health

56 https://www.businessghana.com/site/news/Business/200966/Include-Persons-with-Disability-in-extractive-industry

57 https://www.commdev.org/blogs/engaging-youth-in-the-mining-sector-opportunity-for-prosperity/

58 https://www.kasaghana.org/prioritise-youth-inclusion-in-decision-making-processes-within-the-nre-sector-youth-nreg-tells-government

people, as a result of their financial conditions, are not able to fully participate in the procurement opportunities presented by mines.

Inclusivity in Ghana's mining sector has remained a challenge over the decades, similar to the regional and global narrative. Gender inequality and barriers to meaningful youth and PWDs participation in Ghana's mining sector has necessitated multi-stakeholder efforts over the years. **Identifying the right systemic and structural barriers** is the first step towards addressing this phenomenon.

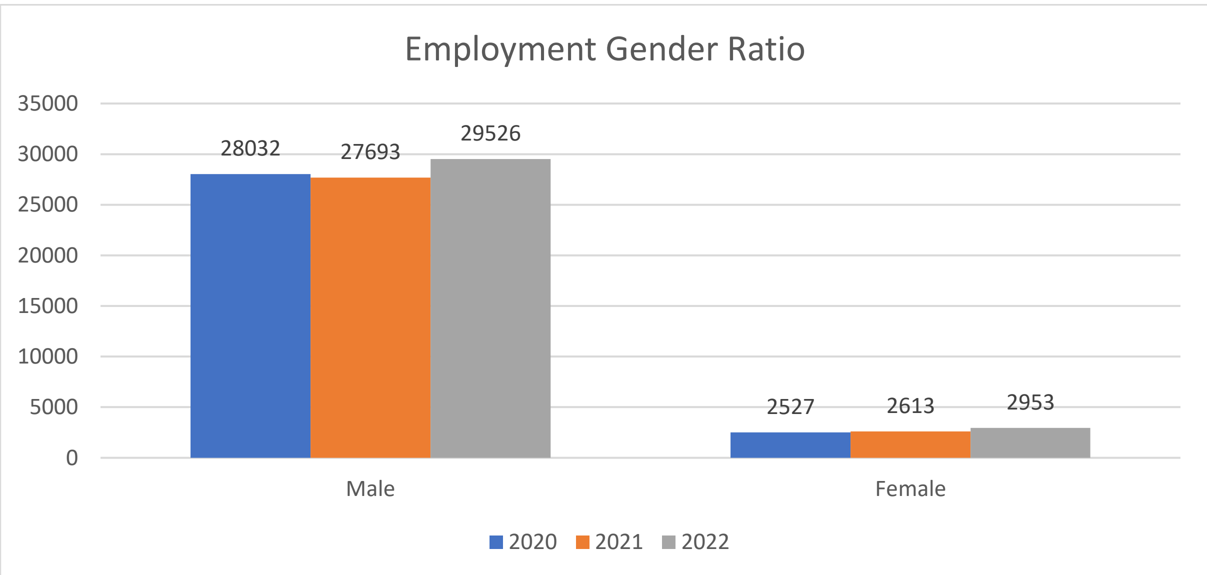
5.2 Challenging Barriers

Women, youth and Persons with Disability are underrepresented at all levels within the mining sector, even though opportunities abound for the industry to boost their recruitment, retention, and advancement. Challenging barriers to active women, youth and PWDs participation manifest in two distinct, but related pathways; challenges faced by marginalized groups already in mining and barriers to those who want to join the sector. The remainder of this section provides an overview of the barriers facing women, youth and Persons with Disability in their effective participation in Ghana's mining sector.

Impact of Historical Exclusion of Women, Youth and Persons with Disabilities

Traditionally, in Ghana, like the rest of the world, the mining sector has been a male-dominated industry. The 'masculine image' of the sector created in pre-independence Ghana, when the sector was laborious, dangerous, highly intense and risky, continues to undermine effective women participation in the sector. **It is instructive to note that until 2003, Ghana like many other countries in Africa, had legislative provisions prohibiting women participation in the industry**. Consequently, the gender gap in the sector has always been wide, with the participation of women very low.

Fig 5.2: Mining Sector Labour Gender Ratio



Source: Minerals Commission

NB: 2022 Labour statistics is the averages of the 1st to 3rd Quarters.

Similarly, youth and persons with disabilities historical exclusion continues to hinder their participation. With the sector tagged as a 'man's world', because of the physically demanding jobs in the underground mines and the associated occupational safety concerns, PWDs and youth involvement in the sector remains alarmingly low.

'Our sustainability department has introduced a financial management and entrepreneurship training initiative to support women in the community to meaningfully participate in supply chain contracts of our company'

- **Large scale mining company**

Interestingly, our study showed that women and youth participation in the ASM sector is significantly higher, despite the unsafe nature of the ASM sector – further reinforcing how historical prohibitions have forced these vulnerable groups into the informal mining sector.

Women and PWDs underrepresentation in Sector-Relevant Academic Programs at Second-Cycle and Tertiary Levels

In identifying the barriers to active and meaningful participation of vulnerable groups in the mining industry, our study showed that females and persons living with disabilities are significantly under-represented in academic programs that train engineers, technicians, heavy-duty truck drivers, machine operators across the various tertiary institutions in Ghana. Based on document analysis and Key Informant Interviews, the study revealed a strong positive correlation between their underrepresentation in relevant STEM courses and their limited participation in the industry. For instance, at the senior high school level, most girls are encouraged to do General Arts, while majority of those who do science programmes transition into nursing training colleges.

'We want more women to join the mining sector, however, a lot young girls are not pursuing STEM courses at the senior high or tertiary levels. This is a real concern for us'

- **Group involved in women advancement in the sector**

While significant progress has been made in recent years promoting female enrolment and retainment in Science, Technology, Engineering and Mathematics (STEM) at the second-cycle and tertiary levels, more efforts are required to ensure gender parity is achieved in the STEM programmes at the university.

'After realizing low females in our company, we introduced an initiative of recruiting more women into national service positions. By this approach, we can train and retain

them subsequently after their national service to increase the number of women in the company'

- Large-scale mining company

Limited Advancement Opportunities in the Sector for Vulnerable Groups

Our research also showed that company culture and the lack of diversity in the boardroom (beyond the entry level) are critical barriers to inclusion in the mining sector. Key Informant Interviews with leading women in Ghana's mining sector indicated that well-experienced women have been sidelined in technical roles in Large-Scale Mining Companies, while there is general notion that men are unduly favoured for technical and operational leadership opportunities in mining companies through deliberate mentorship.

'I know some women who have left the industry because of lack of opportunities to rise. At times, childbirth also retards women progress in the sector'

- Female employee in the mining sector

Also, women who further their expertise through academic programmes feel undervalued as their academic skills do not necessarily create the anticipated leadership opportunities, as in the mining industry, operational experience is rated higher than academic qualifications. Yet, women in Ghana's mining sector faces systemic barriers in acquiring similar operational mentorship as men. This is evident on the ground, and even beyond mining companies. Women in senior executive position in Ghana's mining sector is significantly rare in government institutions, mining companies and civil society space. Ghana is yet to have a female sector minister and a female CEO of the minerals commission, while none of the LSM firms have had a female CEO. Despite the above, a number of companies continue to make tremendous strides in advancing women career in the sector. For instance, in Newmont Africa, a number of key leadership positions are occupied by women. Newmont Africa's Regional Vice-President for Sustainability and External Relations, Regional Vice President Human Resources, and Director – Talent Management, Inclusion and Diversity at Newmont Corporation are all women.

The narrative is far worse for young people and persons living with disabilities as lack of advancement opportunities continue to serve as challenging barriers for their effective participation in the mining sector of Ghana.

Unfavourable Working Environment

The study showed that a key barrier to meaningful women's participation and advancement in the mining sector is the unfavourable and unwelcoming working/operating conditions in the mining sector, for women, as shown in the box below;

Box 5.1: Perceived practices against women in the sector

The study also revealed women suppliers face one form of discrimination, or another. The perception of a woman not able to handle big contracts impedes relevant RFP and RFQ information to women. The erroneous perception of 'women being difficult people to work with' was also identified as a barrier facing women suppliers in the sector. Our study revealed incidents of sexual harassment and unsafe working conditions for both female mine workers. For instance, some female workers confirmed of being sexually harassed at the work place, while the limited flexibility in operational and technical roles and the associated challenges of spending significant time away from home affects women in the sector – who in the Ghanaian cultural context, bears the responsibility of home care. Though the study acknowledges the situation has improved over time, mine working conditions continues to be detrimental for women growth in the sector.

Source: 2023 Filed Data Collection

A Women in Mining Ghana study also showed that 51% of females working in Ghana's mining sector have been sexually harassed. For persons living with disabilities, the unresponsiveness of the mining industry to their peculiar needs decreases their chances of being employed in the sector. Despite Ghana being a signatory to a number of international protocols and having enacted appropriate laws aimed at inclusion of PWDs, implementation of same remain a challenge in the mining sector. The inaccessibility of the mining sites therefore continues to serve as a barrier to the participation of PWDs.

On the issue of safety, even though LSM companies have robust occupational health and safety systems, and periodically monitor and report on the associated cases, the risk involved in the sector was identified as a key barrier for women and Persons with disability in Ghana's mining sector.

'We acknowledge the biases women face in the LSM sector, and therefore have instituted robust policies to safeguard the rights of our female employees'

- **Large-scale mining company**

This situation is worsened in the ASM sector due to the precarious nature of their activities, and the unstructured occupational health and safety practices, including the lack of appropriate sanitary facilities.

Low Economic Capital to Participate in Mining Sector Local Content and Beneficiation Policies

Beyond the values of equality, fairness and equity, the study revealed how women, youth and persons with disability are excluded from the mining sector as a result of their low financial capacity. Even though the study has revealed that the current local content implementation in the mining sector is saddled with challenges as a result of the violation of existing legislative provisions by mining companies, opportunities abound for Ghanaian participation in the supply of good and services for the companies – thereby participating in the sector. The study however showed that this is not the case for the above-mentioned vulnerable groups, as they are unable to provide such services which requires significant capital for prefinancing.

'Our firm has introduced quota for women in the supply chain contracts, but it has become extremely difficult getting women to participate because of funding constraints'

- **Large scale mining company**

This finding aligns with available national data which shows women, youth and persons with disability as economically disadvantaged populations in the Ghanaian society. [59] Closely linked to access to capital, is access to minable lands for women, which is a reflection of women's lack of financial capacity.

5.3 Summary of Key Findings

This section of the report primarily highlighted the challenging barriers facing the meaningful and active participation of vulnerable groups in Ghana's mining sector. Even though the study acknowledges there exist numerous vulnerable and marginalized groups in Ghana who potentially face systemic barriers accessing opportunities in the mining sector, the study scope covered the following 3 vulnerable groups;

- Women
- Young People (Youth)
- Persons with disability (PWDs)

The following factors were identified as challenging barriers inhibiting their active participation in the mining sector.

- Impact of historical exclusion of women, youth and persons with disabilities

[59] https://www.commdev.org/blogs/engaging-youth-in-the-mining-sector-opportunity-for-prosperity/

- Low economic capital to participate in mining sector local content and beneficiation policies
- Unfavourable working conditions and environment
- Limited advancement opportunities in the sector for vulnerable groups
- Women and PWDs underrepresentation in sector-relevant academic programs at second-cycle and tertiary levels

5.4 Conclusion

Ghana’s mining industry faces the challenge of a generation; ensuring competitiveness and promoting sustainability amidst declining productivity and the strong need to adhere to safety standards. To achieve this, the industry will need to harness its robust talents. Advancing diversity in the mining sector is therefore beyond the values of equality and equity, as studies have demonstrated the overall impact of diversity on business outcomes. Enhancing the participation of women, youth and persons with disability in the sector is therefore a moral imperative as well as a business necessity.

6 Conclusions & Way Forward

This section covers

- Summary of the report
- Recommendations and key areas for reforms

6.1 Summary of the report

Globally, mineral resources have served as a catalyst for sustained socio-economic development. Similar to the global narrative, Ghana has benefited significantly from its mineral wealth. The sector remains the largest contributor to domestic revenues, while creating high-paying jobs and stimulating the economies of resource rich communities. Despite its demonstrated impact on Ghana's economy, the full potential of the sector remains unexplored, and its benefits untapped, including increasing revenue mobilization and advancing inclusivity in the sector. Disjointed local content policies, and weak enforcement of existing local content regulations have reduced Ghanaian participation in the sector, particularly in the procurement of goods and services. Similarly, the linkages between the sector and other critical sectors of the Ghanaian economy – necessary for optimizing the benefits of the sector remains worryingly low. In sum, the non-fiscal revenue pathways to optimizing the benefits of the mining sector has largely been unexplored.

For Ghana to optimize the full benefits of the industry that has sustained the Ghanaian economy for centuries, pragmatic and concerted efforts are required from government and industry players. The significant bottlenecks that hinder optimal Ghanaian participation in the sector needs to be comprehensively addressed. Concerted efforts are particularly required in the area of suppliers' development, to enable local firms to competitively participate in the sector. This may include trainings and creating an enabling environment for local businesses to thrive and remain competitive. Deliberate policy interventions aimed at linking the sector with other sectors, such as agriculture and tourism sectors are also required, while exploiting opportunities offered by AfCFTA and other relevant trade protocols. Measures must also be instituted to reduce impediments to active female, youth and PWDs participation in the sector to advance inclusivity and equity in Ghana's mining sector.

The next section details the key findings and recommendations from the study;

6.2 Key findings & Recommendations

Fiscal Revenue Pathway in Ghana's Mining Sector

Ghana's mining industry has a robust institutional arrangement instituted to advance the effective management of the sector, headed by the Ministry of Lands and Natural Resources, with day-to-day oversight of the sector led by the Minerals Commission of Ghana. This is accompanied with relevant legislative provisions enacted to ensure the sector is adequately and comprehensively regulated. As a result of the comprehensive legislative framework and the robust institutional governance structures, the Ghanaian economy derives significant fiscal benefits from the sector. Fiscal rent received from the sector includes PAYE, royalties, property rates, corporate taxes, business operating permits, among others. Consequently, fiscal revenues from the mining sector have remained a significant source of domestic tax revenues in Ghana for decades. The study showed that fiscal revenue pathways present government with reliable mineral rent, which is used to finance critical development projects and initiatives.

Non-Fiscal Revenue Pathway in Ghana's Mining Sector

Local Content and Value Addition (LCVA) policies implementation heightened in the immediate aftermath of the soaring prices of minerals on the global market in the 2000s when the benefits of this price boom failed to benefit mineral-rich countries. The study identified the following LCVA policies in Ghana's mining sector, underpinned by provisions in LI 2431;

- Submission of localization plans by mineral right holders to demonstrate their commitment of training Ghanaians to occupy positions occupied by expatriates
- Reservation of unskilled and clerical/administrative roles in the sector for Ghanaians
- Introduction of specific employment quotas for expatriates at various stages of a mine project
- The use of visa restrictions to advance Ghanaian participation in the sector
- Provision of list of goods and services that should be sourced locally

The study further identified some gaps in Ghana's local content implementation, including;

- Absence of gendered quota in Ghana's local content laws
- Absence of legally-mandated community development agreements to maximize benefits to host communities
- Policy inconsistencies and absence of favourable environment hindering local content practices in Ghana
- Lack of financing opportunities to promote local supplier development

The study finally identified that non-fiscal revenue pathways in the mining sector, particularly local employment and procurement presents an untapped opportunity. With the right policy interventions, Ghana can optimize benefits from the sector to accelerate socio-economic development. To this end, the following actionable measures are proposed by the study to advance local procurement in the Ghana mining sector:

- Review the implementation of the National Suppliers Development Programme to provide local suppliers with the necessary support to compete favourably
- Conduct an annual review of the procurement list to ensure that the list responds to the manufacturing capabilities of local manufacturers
- Removal of goods and services that are on the procurement list from the mining list to promote local production of such goods and services
- The Minerals Commission must be more proactive in sharing information and analysis pertaining to local procurement in the mining sector and collaborating with other state agencies to seek redress to critical challenges that local suppliers face.
- The Minerals Commission should share the procurement plans of companies with the Customs division of the Ghana Revenue Authority (GRA) to enhance compliance.
- Facilitate local manufacturers and suppliers' access to innovative critical financing schemes to enhance their competitiveness
- Develop and implement a long-term policy, devoid of political interferences, to guide minerals extraction in Ghana. Policies should include innovations aimed at enhancing the local manufacturing in the sector
- Learning from the local content implementation in the oil and gas sector, Minerals Commission is encouraged to institute a framework to advance local content implementation in the sector. They may include the establishment of Local Content Multistakeholder Committee, and a Local Content Fund. The Petroleum Commission's AOGC program can also be replicated in the mining sector to enhance the technical capacity of Ghanaians to enable them occupy technical and sophisticated roles

Linkages between the Mining Sector and other sectors of the Ghanaian Economy

The mining sector has traditionally been viewed as an enclave sector with limited linkages with other critical sectors. This section of the study explored and highlighted the forward, vertical and horizontal (potential) linkages of the mining sector and the overall Ghanaian economy. The study concluded that the local economies of host communities, and the overall Ghanaian economy stands to benefit greatly if linked with the mining sector. Furthermore, with the right policy framework, AfCFTA also presents a unique opportunity for Ghana to leverage its extensive experience in the mining sector.

The study therefore made the following recommendations;

- Align governments industrialization agenda, including the 'One District, One Factory (1-D-1-F)' with the local content opportunities created by the mining procurement list to develop the country's manufacturing capability to deliver the required mine inputs –

thereby creating jobs and providing sustainable incomes for the jobless, particularly among the youth and women in mining host communities.

- Develop and implement beneficiation policies to process raw minerals into finished or semi-finished products to enhance its export value. The 1DIF vehicle can be used to promote industrialization and value addition in the mining sector.
- Enhance the linkages between mining activities and other strategic economic clusters (growth poles) of the local economy of host communities
- Build local industries capable of providing industry-standard goods and services to take advantage of the opportunities presented by AfCFTA
- In their economic diversification approaches, mining companies can leverage on their strong economic position to establish agro-processing companies for communities, thereby creating sustainable jobs in mineral rich communities. They can also facilitate the establishment of outgrower schemes in mining communities to provide ready market for farmers in host and adjoining communities – which will incentivize more people to venture into agriculture
- A collaboration between the Ghana Tourism Authority and the Ghana Chamber of Mines is proposed in the use of decommissioned mines for tourism purposes to expand Ghana's tourist hotspots and project Ghana's mining heritage

Achieving Inclusivity in Ghana's Mining Sector

Women, youth, PwDs and other marginalized groups continually face a variety of barriers in Ghana's mining sector, but with the appropriate tools, the sector can contribute to their increased empowerment. In Africa, there is widespread recognition that mining can play a critical role in accelerating the achievement of SDG 8 on decent work and inclusive economic growth, and SDG 5 on gender equality provided existing gendered employment concerns in the sector are comprehensively and timeously addressed.[60] Over the years, African governments have redoubled efforts in advancing inclusivity in the mining sector, in line with the tenet of the Africa Mining Vision, which advocates gender equality, women empowerment and inclusivity in the exploitation and utilization of Africa's mineral resources. Yet, women, youth and other marginalized groups continue to face systemic and structural barriers in accessing opportunities in the sector.

The following recommendations are intended to enhance active participation of women, youth and Persons with Disability in Ghana's mining sector.

- Education, Training and Skills Acquisition and Mentorship

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[60] UNDP (United Nations Development Programme), World Economic Forum, Columbia Center on Sustainable Investments and Sustainable Development Solutions Network. 2016. *Mapping Mining to the SDGs: An Atlas*.

Women, youth and persons with disability effective and meaningful participation in Ghana's mining sector is usually limited by the lack of requisite technical and operational skills. Providing the right training, through formal education and apprenticeship, for them to acquire industry-relevant knowledge and skills is a major step towards enhancing their employability and subsequent participation in the sector. As the limited participation of females and PWDs was identified as a critical barrier, the study also recommends deliberate and conscious strategies aimed at increasing their enrolment in relevant STEM courses at both the secondary and tertiary levels. Industrial Mentorship (IM) is particularly recommended by the study to enable females and persons with disabilities learn from seasoned experts in the sector.

- Preferential Employment and Procurement Strategy (PEPS)

As a result of the historical and structural barriers facing women and other marginalized groups in Ghana's mining sector, deliberate and well-targeted policies are required to enhance their active and meaningful participation. The study therefore recommends the introduction of the Preferential Employment and Procurement Strategy (quota system) to ensure that women, youth and persons with disabilities are deliberately targeted, and not excluded from economic participation in Ghana's mining sector. Among others, the initiative should prioritise the employment of the above groups, while giving preferential treatment to companies owned by them in procurement activities.

Box 6.1: AGA Obuasi prioritizes female owned businesses in supply chain contracts

> Recognizing the historical exclusion of women in the sector, and the current challenges facing their participation in supply chain contracts, AGA Obuasi has introduced a female-preferential procurement initiative to maximize females' participation in supply chain contracts. During their assessment of bids, extra weightings are added to women-controlled businesses to enhance their chances of securing procurement contracts with the firm. In addition, the sustainability unit organizes entrepreneurship and business development trainings for women-owned businesses to enhance their economic viability and market competitiveness.

Source: 2023 Field Data Collection

This policy, which aligns strongly with the African Mining Vision and Ghana's Affirmative Action Bill's core tenant of equity and equality, will increase the participation of these previously disadvantaged groups in Ghana's mining sector.

- Mining spaces should be inclusive to accommodate the specific needs of women and PWDs

Women and persons with disabilities can face numerous barriers in Ghana’s mining sector, but with the right tools, the sector can significantly contribute to their meaningful participation, and their increased economic empowerment. For instance, to accommodate for their cultural homecare commitments, mining companies can establish childcare centres and other family-related services at mine sites. For persons with disabilities, making mining sites more disability-friendly will not only enhance their employability, but also encourage them to view the mining sector as an employment pathway. Furthermore, mining companies can also introduce gendered occupational health and safety systems that provides gender-appropriate protective tools and services, including helmets, googles, secure toilets, disability-friendly toilets and changing rooms.

- Challenge unfair norms, and build safe and positive workplace

Our study showed that the gendered barriers in the mining sector are systemic and structural. To address this, and enhance the inclusivity of the sector, attitudinal and behavioural change is required. Through sensitization and awareness creation, the study recommends mining companies to create and foster safe and positive working environments devoid of stereotyping. This will create the platform for youth, women and persons with disability to thrive and reach their full potential in the mining sector.

Annexures

Key stakeholder institutions and individuals consulted

1. Minerals Commission
2. Ghana Chamber of Mines
3. Women in Mining Ghana
4. Zen Petroleum Limited
5. Golden Star Resources
6. Female-Owned Service Provider
7. Mining Sector Procurement Expert