Leveraging Mineral Value Chains for Broad-Based and Sustainable Development – Policy Options for Ghana

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About the series:

The United Nations University-Institute for Natural Resources in Africa in collaboration with the University of Warwick's Centre for the Study of Globalization and Regionalization, University of Leiden-African Studies Centre, Universidade Eduardo Mondlane and University of Ottawa's Centre on Governance undertook a joint United Nations Economic Commission for Africa funded project on "Engaging the Private Sector for Inclusive Extractive Industries and Sustainable Value Chains in Africa." The project was carried out through the study and analysis of four country case studies: Ghana, Tanzania, Zambia and Mozambique. The two-year study examined and prioritized backward linkages in Africa’s mineral extraction and natural resources sectors, contributing to on-going efforts at answering the central problematic of how to leverage the latter industries to support, encourage, facilitate, and drive broad-based and sustainable economic growth and development, both transitionally and in key case study states.

Abstract

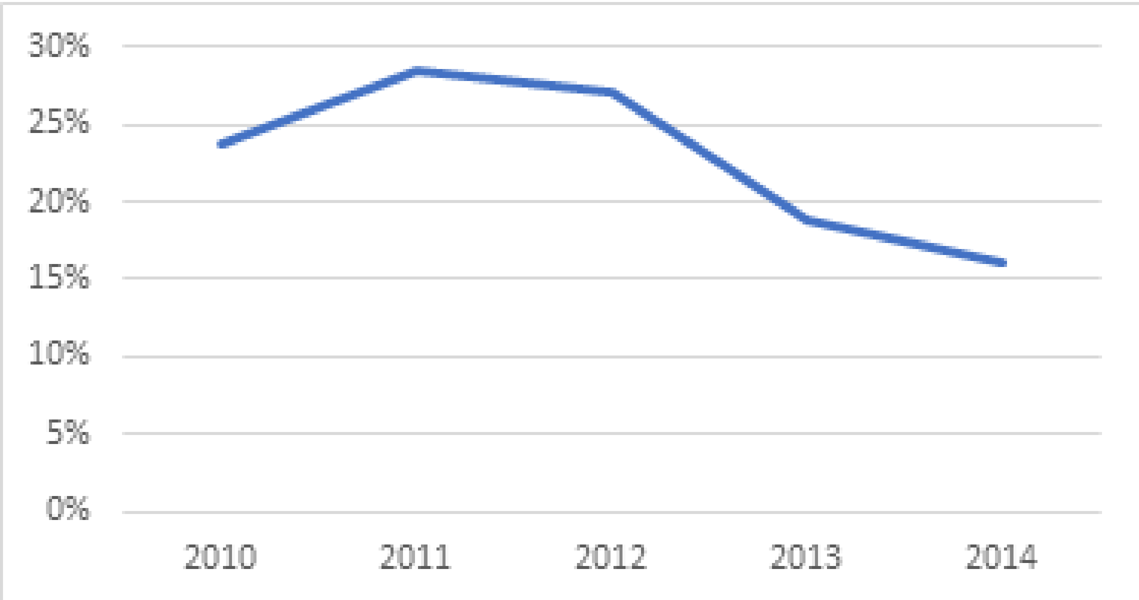
The goal for minerals-driven economic transformation remains an elusive quest for many countries. Mineral wealth has largely been translated into taxes and royalties which are used to fund development. However, the true value of mineral wealth lies in minerals being a base for wider economic transformation through developing linkages with the wider economy. For example, in countries like Australia, the industries developed around mining companies/ activities now have a bigger contribution to the gross domestic product (GDP) than the mining activity itself. Minerals extraction in Ghana largely remains an enclave economy dominated by foreign mining companies and mining service companies. This is a situation that the Government of Ghana has sought to change through the increased participation of locals in the sector and by regulating local content. However, the Ghanaian local content regulations, as they are, maybe missing the point.

The current regulations are creating a new local elite either as replacement of expatriates or as new middlemen that will import inputs on behalf of mining companies. This is a situation that could have unintended consequences as mining companies give preference to politically connected and essential policies that will facilitate the political capture of mining interests. A more thoughtful approach will require a local content policy to be coordinated with industrialisation and foreign investment policies in order to create joint ventures that will develop local suppliers. In terms of a bigger emphasis on skills, the focus should be on developing skills that can be transferred to other sectors of the economy rather than focusing on merely replacing highly specialised expatriates. This paper explores policy options for Ghana as it continues to develop its local content approach.

I. Introduction

Gold has played a central role in Ghana's economy for many generations, hence the colonial name of Ghana – "The Gold Coast". Between 1493 and 1600, Ghana was the largest gold producer in the world, accounting for about 36 per cent of the world production (GoG, 2014). Mining continues to play an important part in Ghana's economy. In 2014, mining contributed to about 8.0 per cent of Ghana's GDP (GSS 2014), 46 per cent of its gross export revenues (Aubyn 2017) and about 16 per cent of government revenues. This was mainly contributed through royalties and taxes though this has fallen from 27 per cent which was achieved in 2011 (see fig. 1).

Fig 1: Contribution of Mining to Government Revenues



Source: GHEITI 2014

The critical role of mining in the economy is reflected in the current growth strategy contained in the Ghana Shared Growth and Development Agenda (GSGDA II) and the Medium-Term Development Plan (2014–2017)[1] . It makes the point:

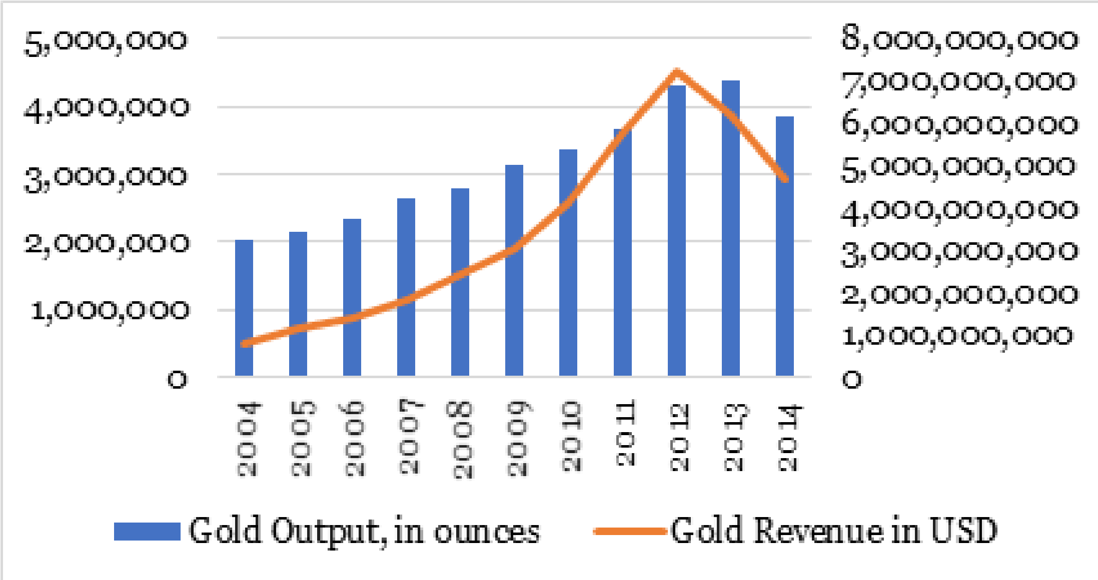
'…Ghana is uniquely endowed with significant amounts of valuable natural resources, including gold, diamonds, salt, bauxite, limestone, iron ore, and manganese…. These endowments make Ghana one of the few countries to be in [such] a position with the opportunity to leverage the natural resources to achieve a quantum leap in economic growth and development through commodity-based industrialisation…'(NDPC 2014 p. 26).

The large-scale mining sector is liberalised and largely owned by foreign mining companies. Between 1957 and 1983 Ghana's mining industry was to a large extent controlled by the state. (GoG 2014). The liberalisation in the early 1980's was accompanied by very generous incentives[2] to attract foreign investment in order to rehabilitate the sector that had largely decayed as a result of under-investment under the state-controlled mining regime (1957–1983). This saw a significant inflow of investments (mainly from large-scale mining companies buying off state-owned mining companies) and a steep rise in output and an even steeper rise in revenues in the wake of the commodity boom (see fig. 2).

[1]The Ghana Shared Growth Development Strategy is a medium-term plan for the country. The plan is mandated by Ghana's constitution. It requires that within two years after assuming office, the President shall present to Parliament a Coordinated Programme of Economic and Social Development Policies (CPESDP). The CPESDP (2014–2020) outlines the medium-term vision for the development of the country. To operationalise the broad policy proposals outlined in the CPESDP, the Ghana Shared Growth and Development Agenda (GSGDA) II, 2014–2017 was prepared. The GSGDA II, is the fifth in the series of medium-term national development policy frameworks to be prepared under the Fourth Republic.

[2]This included: lowering of corporate taxes (55 per cent to 25 per cent); royalties reduced from 6 per cent to 3 per cent; reduction or removal of import duties, allowed to retain part of their foreign exchange in foreign accounts.

Fig 2: Gold Output and Revenues (2004–2014), Ounces, US$



Ghana Chamber of Mines reports, various years (Cited in ACET 2016)

Between 2004 and 2013 gold production rose by 116 per cent and while revenues rose by 645 per cent, production rose from 2.0 million ounces in 2004 to 4.4 million ounces by 2013, the highest ever in the history of the country. However, the generous incentives have meant that much of the value generated from the increased output has been captured by the mining companies. This is because the large mining companies had generous incentives of low taxes and many exemptions e.g. duties on imports which meant that as they increased output with a rise in the gold price their share of revenue grew faster[3]. This has led to some significant disquiet with many feeling that the benefits from mining are insufficient[4]. Indeed, after many years of mining activities, Ghana's economy has largely remained untransformed. This need not be the case, as exemplified by Chile. Chile has been able to transform its economy and achieve high standards of living based on the sound management of its vast copper deposits. It did so by relying largely on fiscal discipline and the quality of its institutions (Ford 2015). Natural resources can be the basis for sustainable social and economic development. Indeed, a United Nations Sustainable Development Network Report (UNSDSN, 2016) makes a strong case for linkages between mining and Sustainable Development Goals (SDGs). When managed appropriately, mining can create jobs, spur innovation and bring investment and infrastructure at a game-changing scale over a long period.

This paper aims to explore potential pathways for Ghana to capture greater benefits by leveraging the mineral value chains. In section II we develop a framework for exploring the value captured from mineral resources. Section III looks at Ghana's efforts at increasing local content and local value addition, section IV evaluates the local content policy of Ghana, section V looks at the potential for improving the local participation policy section, and section VI concludes.

[3]This is because royalties which is the main source of revenues for government are based on sales, so the share of royalties rises proportionally with revenues. However, since the cost of production is largely fixed cost, profits rise rapidly as the price goes up, so the share of rents favours mining companies. Note that the tool many countries use to capture extra revenues in periods of high commodity prices is windfall tax. For instance, at the height of the mining boom in 2010, Australia introduced a windfall tax of 40 per cent to capture extra rents from the mineral resources (See. https://www.mining-technology.com/features/feature87879/. Note that a similar tax was effectively resisted in Ghana by the mining companies (see https://www.reuters.com/article/ghana-mining/update-2-ghana-puts-plans-for-mining-windfall-tax-on-hold-idUSL5N0KY1EK20140124).

[4]This came to a head in 2012 when at the height of the commodity boom the government's budget statement pointed out that the country did not benefit from the commodity boom. Indeed, in light of the public pressure the government made some revisions on the generous incentives including (i) raising royalties from 3 per cent to 5 per cent of the sales and; (ii) raising corporate taxes from 25 per cent to 35 per cent (ACET 2016).

II. The Quest for the True Value of Mining – A Framework

Mining activities are very capital intensive and demand very specific skills. Furthermore, minerals tend to be found in the less-developed regions and the final product that makes use of the resources tends to be manufactured in the industrialised countries. This means that mineral value chains tend to be global in nature. The capital-intensive nature of the sector combined with the global nature of the mineral value chains has seen global multinationals, who have the capital and global reach to coordinate the mineral value chains, dominating the sector. Furthermore, as the sector has consolidated, a few global mining houses now control much of the mineral value chains. For example, the top 10 gold mining companies produced 29 per cent of the global output in 2016[5]. Mining companies have relationships (developed over many years) with preferred suppliers and this explains the significant mining equipment sector in countries where big mining houses come from. For example, the technology and service sectors (METs) in Australia have followed the growth of large Australian mining companies (OECD 2017). Thus, mining suppliers also tend to be multinational (usually growing together with their clients). For these reasons, minerals extraction and processing tend be enclave economies, nominally linked to the local economies. In this enclave model countries are expected to largely benefit from royalties and taxes that the mining companies pay. The government can use the revenues as it sees fit based on its development priorities.

The enclave nature is a concern especially given the fact that minerals are usually owned by the public, yet they seem excluded from the extractive activities. More so, the power asymmetry between mining companies and the governments mean that mining companies have a big influence on what the public receives from minerals. The Third World Network (TWN) has in the past expressed concern about poorly negotiated contracts between Ghana and the mining companies[6]. Negotiating mining contracts is an extremely complex endeavour that requires a clear set of objectives articulated by leadership; a variety of technical skills in law, engineering, economics, finance, and other areas; a high level of coordination across relevant government entities and the ability to pursue a consistent course over time (World Bank 2015). Mining companies are better equipped with regard to all these aspects and thus they can negotiate better[7] terms. To build global capacity with regard to the negotiation of mineral development agreements, the World Bank Group hosted two international training workshops that brought government representatives from African countries, including Ghana, together (World Bank 2015). This situation creates the perception of exploitation. Therefore, mining activities tend to set a situation of conflict between mining houses and the public by default. The extreme end of this sentiment is manifested in resource nationalism as people clamour to reclaim and own their resources. At the less extreme level, this is expressed in the desire to increase local participation and local benefits from minerals extraction[8]. Increased participation has been seen as a way to capture greater benefits[9] in lieu of nationalisation (which has a bad history, as the era of state-led mining in Ghana that saw the almost complete collapse of the sector due to underinvestment has shown. Venezuela is currently experiencing the same).

Translating mineral wealth into permanent gains will require a broad span of policies that can leverage the various stages of the mineral value chain to create greater value, while at the same time linking the mineral chain to the broader economy (APR 2013). The four levels of benefits that can be derived from minerals:

a. Direct taxes and royalties[10] from extractive companies that can fund development projects and the provision of public goods[11].

[5]These are: Barrick Gold Newmont Mining; AngloGold Ashanti, Gold Corp, Kinross Gold, Newcrest Mining, Gold Fields, Polyus Gold, Agnico Eagle Mines Limited, Sibanye Gold Limited (see http://www.mining.com/update-worlds-top-10-gold-producers/).

[6]For instance, it has expressed concern about the agreement between the Goldfields mining company and the Government of Ghana pointing out that Ghana did not get a fair deal in the 2016 agreements http://twnafrica.org/Goldfields%20development%20agreement%20with%20Ghana%20illegal-pr-2016.pdf

[7]They have better information about the value of the resources, and they are also better at creative accounting (thus have a big leeway in declaring what their profit and thus tax liability are).

[8]Mining companies aware of the tension are usually fairly proactive through corporate social responsibility (CSR) so as to provide some benefits to local communities and buy their favour i.e. social license to operate. Some see CSR as way to balm and to ameliorate the concerns of local communities.

[9]A 2013 report by the McKinsey Global Institute estimates that 90 per cent of resource-driven countries now have legal provisions on local content (see https://www.mckinsey.com/industries/metals-and-mining/our-insights/reverse-the-curse-maximizing-the-potential-of-resource-driven-economies).

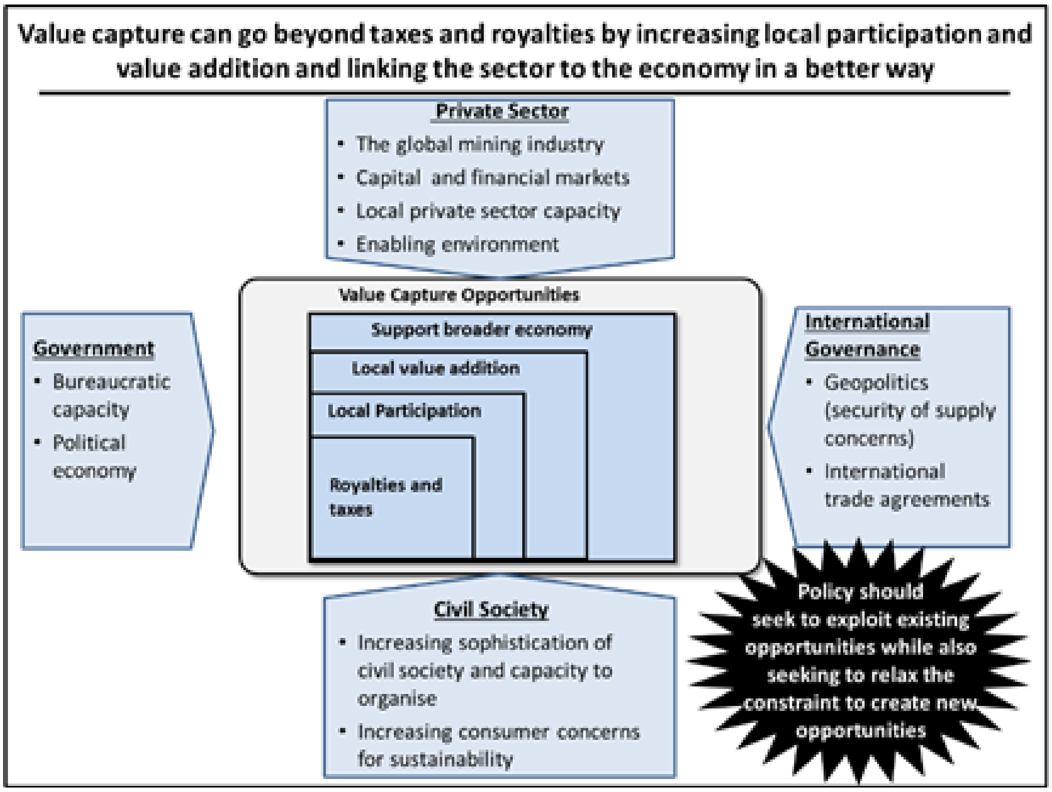
[10]The current tax regime is royalties – 5%, corporate income tax – 35%, withholding tax – 10%, additional profit (windfall) tax – 0% (ACET 2016)

[11]Africa Progress Report (APR) (2013) estimates that Africa loses close to US$38 billion to mispricing (transfer prices), an amount equivalent to the total Overseas Development Assistance (ODA) received by African countries. It also loses another US$25 billion through other illicit flows. Even developed countries are starting to come to terms with Illicit Financial Flows (IFFs) as they seek to raise more from taxes. This is an issue at the top of global development agenda.

b. Indirect benefits from employing local people and also local firms participating in the mineral value chains (as suppliers and also as players. This creates jobs, brings in taxes and increases the capacity of the private sector though increased know-how).
c. Indirect benefits to the larger economy due to spillovers e.g. the flow of skills and know-how to other sectors, improved infrastructure that is available to other sectors (making them more competitive), and increased purchasing power that can stimulate the demand in the economy.
d. Local value addition. Note that the level of the three benefits above will depend on how much of the value chain is located in-country and how much is located elsewhere.

The direct benefits are the pathway that has received a lot of attention. The other benefits require more than monitoring and regulation. It also requires more active intervention and collaboration to integrate the mining sector to the economy in a better way by increasing local participation in the value chains. A key requirement is also to relax constraints faced by governments e.g. local participation will depend critically on the private-sector capacity, availability and the business environment, while the ability to do more in-country value addition will depend on the global structure and the commodity value chains and geopolitics (see fig. 3).

Fig. 3 Mining Value Capture Opportunities and Constraints



Source: Author

The potential of increased local participation to drive sustainable growth is significant. A well-executed local participation strategy helps mining to become a basis for sustainable development. For example, the mining equipment, technology and services (METS) sector has been highly developed and now comprises 7 per cent of Australia's GDP and 7 per cent of its employment, compared to 8.7 per cent of the GDP and 2 per cent of the employment contribution by the mining sector (OECD 2017).

The desire to gain more from mining has led to the development of the Africa Mining Vision (AMV) by the Africa Union in partnership with the United Nations Economic Commission for Africa. The central message of AMV is a call for a concerted effort to increase the linkages between mining and the larger economy through greater local participation. Ghana's adoption of the Africa Mining Vision (AMV) in 2011 and the promulgation of the Minerals and Mining Policy in 2016 serves as a key input in developing Ghana's Country Mining Vision

(CMV)[12]. The Minerals and Mining Policy aims to ensure that mining contributes to sustainable development. Implementing the mining vision has also led to new efforts of increasing local participation in mineral value chains by largely focusing on local content. Currently Ghana is putting a supplier development programme as part of the realisation of the CMV[13] in place.

Photo by Tom Fisk from Pexels

[12]Note that the Minerals Commission, representing the Ministry of Lands and Natural Resources in collaboration with the United Nations Development Programme (UNDP), has started series of engagement programmes on Ghana's Country Mining Vision (CMV) to help align it with the broad national development goals and with the African Mining Vision (AMV) (UNDP 2015).

[13]http://acetforafrica.org/acet/wp-content/uploads/publications/2018/04/NSDP-Launch-Report-2018.pdf

III. The Ghana Local Content Approach

As pointed out previously, despite the significant investment in the mining sector, there have been complaints that the mining sector is not contributing enough to Ghana's economy. This is mainly because of over-dependence on fiscal benefits (taxes and royalties) to drive development through funding development projects without a conscious effort to develop linkages between the larger economy and the minerals value chain through increased local participation (GoG 2014).

The Minerals and Mining Act, 2006 (Act 703) makes provision for local content. Section 50 mentions a pursuance of a 'localization policy', where 'localization' is defined as 'a training programme designed towards the eventual replacement of expatriate personnel by Ghanaian personnel', while Section 105 requires preference for local products and the employment of Ghanaians. However, the framework spelt out in the mining law was too generic, did not provide much guidance on the way forward and was largely ignored. This was despite that fact that there is capacity for increased local participation (World Bank, 2012). The situation has recently changed with the passage of Minerals and Mining (General) Regulations LI 2173 (GoG 2012a)) and the Minerals and Mining (Support Services) Regulations, LI 2174 (GoG 2012b) which aim to operationalise the 'localisation' aspirations[14]. The two regulations thus aim to give effect to the Minerals and Mining Act 2006 and are the main legal framework for implementing the local participation aspirations of Ghana.

The local participation regulations have mainly focused on local content. They focus on the employment and promotion of a local workforce; the procurement of locally produced goods and services; technology and skills transfer; and local participation through equity and management (ACET 2015). Table 1 provides a summary of Ghana's local content strategy.

Table 1: The Highlights of Ghana's Localisation Efforts

Local Participation Dimension	Mandate
Employment requirements	• Limitation on the recruitment of expatriates to not more than 6 per cent of the workforce. • Provisions for the employment and training of Ghanaians in general but especially to replace expatriates.
Procurement requirements	• List of products 'with Ghanaian content' to be procured locally. Initially eight items (in 2013) which were then reviewed to include 19 items in 2015. • Mine Support Services Regulations make provision for some services like haulage reserved for Ghanaians or indigenous firms. • Local companies to be given preference in the award of tenders if the quote is up to 2 per cent higher. In this context local participation is defined to include ownership or managerial positions offered to Ghanaians.
Ownership	• The parent law already reserves some licenses for Ghanaians. These are artisanal and small-scale mining (ASM). • Preference is also given to Ghanaians in the granting of exploration and reconnaissance licenses. • Ghanaians are favoured in terms of fees for granting licenses that are open to foreigners. They are being charged lower fees.
Technology transfer requirements	• Not an explicit requirement though implied through the requirement of employment. • Also, companies are required to support suppliers to access technical assistance.
Monitoring and enforcement mechanisms,	The Minerals Commission monitors and imposes penalties for non-compliance.
Government's obligations in the support of the Local Content (LC) programme	Appreciates that government has a role but that this role is not explained clearly. Also, how the various agencies coordinate is not explained clearly.
Supplier Development	No specifics but mining companies are required to support suppliers' development, including the broadening of access to opportunities and helping to access technical and financial assistance.

Source: Author's summary of Minerals and Mining (General) Regulations LI 2173 (2012) and Minerals and Mining (Support Services) Regulations, 2012 (LI 2174)

[14] Other key pieces of legislations that give effect to the Mining Act (2006) include: 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); Environmental Assessment Regulations, 1999 (LI 1652) ('Environmental Regulations').

Below is a summary of the provision in the Minerals and Mining (General) Regulations LI 2173 (GoG 2012a) and the Minerals and Mining (Support Services) Regulations LI 2174 (GoG 2012b).

Employment
The regulations require the three main categories of operators[15] in the mining sector to submit a programme for the recruitment and training of Ghanaians for approval by the Minerals Commission (MC). Holders of mining leases are required that not more than 10 per cent of their senior staff are expatriates within three years after the passing of the regulations. After the third year of the commencement of the regulations, it is required that the percentage shall not exceed 6 per cent[16](GOG 2012a, p.5).

Procurement
- The regulations (LI 2173) specify that firms must accord preferential procurement from Ghanaian suppliers to the 'maximum extent possible and consistent with safety, efficiency and economy'. The Minerals Commission has the discretion on what constitutes the 'maximum extent possible'.
- The regulations also provided of a list of goods that must be procured locally. The initial list produced in 2013 had eight items. According to the Minerals Commission, these eight items constitute 54–60 per cent of all items purchased by mining companies (Minerals Commission). Mining companies were obliged to source items on the list from local Ghanaian producers as far as possible (in terms of ownership, management and employment). This list is to be reviewed annually as local capacity develops. The initial list had eight items which have since been revised to include 19 items (see table 2). Though the initial list had manufactured goods only, the revised list has services (catering and haulage) as well.
- The regulations also require that operators shall indicate the target of local goods and services that they can procure. This target must however cover all the items on the procurement list.
- The regulations furthermore require that when tenders for the supply of goods and services on the procurement list are being assessed and bids are within 2 per cent of each other by price, the bid containing the highest level of Ghanaian participation in terms of ownership and management by Ghanaians and employment of Ghanaians shall be selected[17].
- The mining companies are also compelled to include specific assistance to suppliers' development including the broadening of access to opportunities and technical and financial assistance in their procurement plan.

(for details see GoG 2012)

Table 2: Procurement List

2013	2016
1. Grinding Media	1. Grinding Media
2. Heavy Duty Electrical Cables	2. Explosives (emulsion)
3. HDPE/PVC Pipes	3. Cement and Cement Products/Grout
4. General Lubricants	4. Quick and Hydrated Lime
5. Quick/Hydrated Lime	5. Electrical Cables
6. Tyre Re-treading	6. HDPE/PVC Pipes
7. Explosives	7. General Lubricants
8. Cement	8. Re-treading of Tyres
	9. Bolts and Nuts
	10. Crucibles
	11. Plastic Sample Bags
	12. Calico Bags
	13. Bullion Boxes
	14. Chain Link Fences, Wire Netting, Barbed Wire etc.
	15. Conveyor Rollers
	16. Metal/PVC Core Trays
	17. Overalls and Work Clothes

[15]Category 1: Holders of Reconnaissance or Prospecting License; Category 2: Holders of Mining Lease; and Category 3: Holders of Licenses to Provide Mine Support Service or Export/Deal in Minerals.
16Failure to comply with the provisions of the regulations shall attract a penalty of one year's gross salary of the expatriate involved for each month or part of each month that the expatriate worked (GoG 2012).
[17]Failure to comply within a year of the regulations coming into force will incur a penalty of US$10,000 for every month of the first six months of default and subsequently US$10,000 for each day that the default continues.

	18. Haulage Services
	19. Catering Services

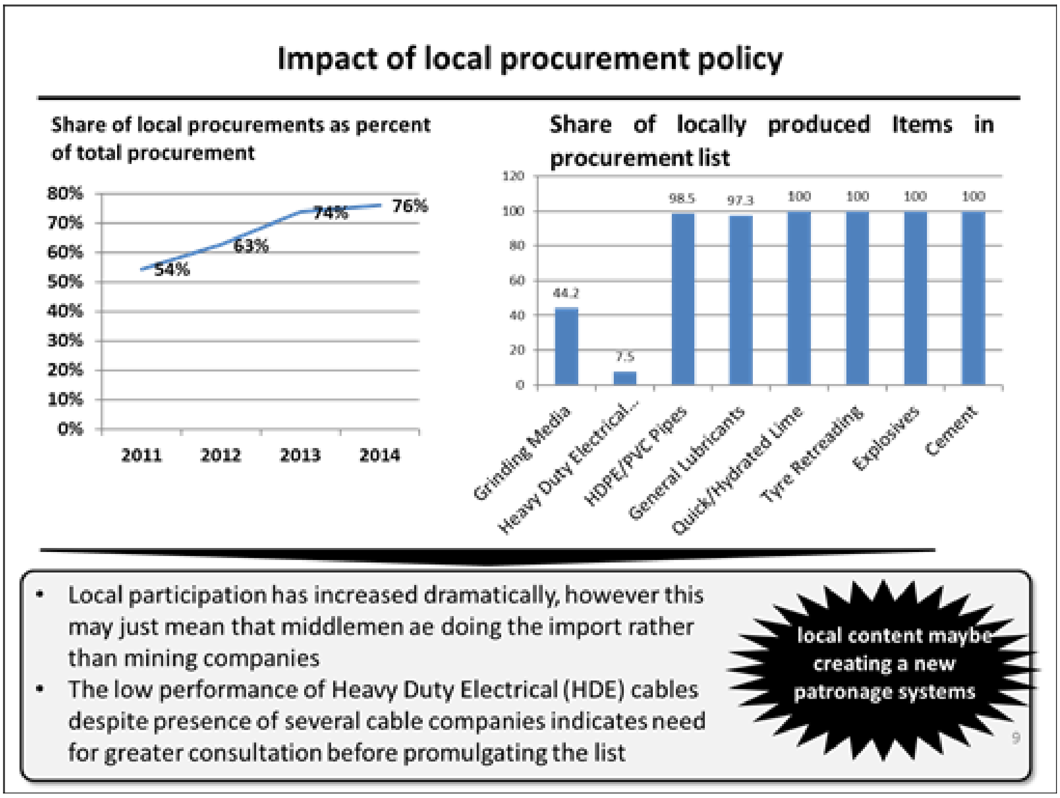
Source: Minerals Commission (Interviews, see also ACET 2016)

Impact

The local content regulations have met most of the targets that it was set to meet. Though targets are subject to much interpretation, some of the successes are listed below (Ghana Minerals Commission interviews – see also ACET 2016):

- Ghanaians hold 80 per cent of all prospecting licenses.
- The employment target of less than 10 per cent expatriate staff, as stipulated in the regulations, has been met.
- Local procurement, as a share of total procurement, has risen from 54 per cent (in 2011) to 76 per cent (in 2014) of purchases. They include grinding media, explosives, lubricants, electrical cables, catering, etc. Note that this includes both locally manufactured and imported goods sold by local companies[18].
- The success on the mandated local procurement list has been mixed (see fig. 4). With the exception of grinding media and heavy duty electrical (HDE) cables, most targets of the procurement list were largely met. It is noteworthy that the HDE target was largely missed. Yet there are a number of cable production companies in Ghana e.g. Tropical Cable and Conductor Ltd.. This non-compliance has attracted a penalty of 10 per cent of the value of the cables procured contrary to the provision of the procurement list.

Fig. 4: The Share of Locally Produced Items in the Procurement List which were Purchased



Source: Ghana Minerals Commission (interviews see also ACET 2016)

Closing the Local Content Gap – Initiatives

There is significant potential to increase local content. The African Minerals Development Centre (AMDC) estimates the annual potential in local procurement at US$1.21 billion (ACET 2018). This includes machine tools, spare parts, and major equipment repairs. These are all energy-intensive industries, requiring global competitiveness with regard to skills and technology, areas in which Ghana lags considerably (ACET, 2016). Indeed, mining companies point out that they are unable to purchase more of the local consumables because the vast majority of small and medium enterprises (SMEs) in Ghana are unable to meet the high-performance standards required by the companies. An assessment of the potential demand for 26 items that are manufactured locally found that one large mining company could double its purchases of these, if the

[18]The Minerals Commission is unable to disaggregate goods manufactured locally and goods imported and sold by local companies. Interviews with one company indicate that typically between 15 per cent and 20 per cent of local purchases are goods and services produced locally.

local industry could boost its capacity. The African Center for Economic Transformation (ACET) (2016) found that some of the challenges facing local suppliers include:

- Standards: Equipment suppliers specify a very specific standard and mining companies are obliged to comply (these are critical pieces of equipment). However local standards differ from standards where the machines are sourced from, so it is hard to tell the equivalent standard in Ghana. Unless standards are harmonised so that, for example, local cables can be rated according to international standards, mining companies are unwilling to source locally produced equipment.
- Suppliers complain of lack of access to information with regard to opportunities in the mining sector. There is a lack of a system where all mining tenders are made public and accessible to all suppliers who are registered and qualified to tender[19].
- Many local companies complain of challenges when registering with the Minerals Commission. Even though the Minerals Commission registers mining supplier service firms, the scope is very limited and only a handful of firms (mostly foreign firms) are able to register and obtain some exemptions from paying import duties and related taxes, as well as have some advantages with respect to access and the use of foreign currency.

There have been efforts to build local capacity to supply. Some of the initiatives taken to address some of the challenges include:

- The Minerals Commission (MC) is keen on putting in place suppliers' development to build the capacity of SMEs. A supplier development programme was launched in November 2017[20].
- The Chamber of Mines is working to address the issue of standards by working with the local industries and relevant institutions to reconcile local specifications with international specifications. This has been in collaboration with the Minerals Commission, the Ministry of Trade and Industry and the Association of Ghana Industries (ACET 2016).
- Mining companies have also been undertaking supplier development initiatives that predate local content regulation. These have the following under their corporate social responsibility (CSR) programmes:
    - One of the more successful initiatives is 'the Newmont Ahafo_Linkages programs'. Established in 2007, the programme aimed to increase local procurement in low-value items such as tools, paints, hospitality services, low-level maintenance, construction, and vehicle rental services. The project ended in 2010, having trained 53 local enterprises and contributed approximately US$14 million to local procurement (World Bank 2012).
    - Chirano Gold Mines has organised local seamstresses into a cooperative, offering them additional training and support and providing them with a contract to sew overalls for the company.

[19]This is what prevails in the oil and gas sector, where the Petroleum Commission registers local oil and gas suppliers and shares relevant oil and gas tenders with them.
[20]The African Minerals Development Centre (AMDC), the African Center for Economic Transformation (ACET), and the German Federal Institute for Geosciences and Natural Resources (BGR) will jointly organise a workshop on 1–2 November 2017, in Accra, Ghana. Part of this workshop includes a stakeholder consultation on the launch of a National Supplier Development Programme
(see https://www.uneca.org/stories/launching-ghana-mineral-supplier-development-programme).

Box 1: The National Supplier Development Programme

Conceived in 2011, the National Supplier Development Programme (NSDP) was a three-year programme implemented jointly by the International Finance Corporation (IFC), the Minerals Commission and the Chamber of Mines. Its main aim was to build the management and technical capacity of 35 local suppliers in the mining supply chain. It was envisaged that within 3 years, sales revenues of these local suppliers would be increased by US$30 million along with the creation of 500 jobs (IFC 2017). The programme was designed to address the key challenges facing local SMEs including poor organisational and institutional structure; lack of management and financial capabilities; poor technical skills; difficulty in accessing finance; and poor market access. It aimed to avail US$5 million within three years of programme implementation through the following four main components:

a. Building the capacity of business and technical skills for local SMEs.
b. Increasing access to finance: train SMEs to develop business proposals, expose them to the available financial products on the local market and also give support through the IFC to raise funding.
c. Improving access to information on opportunities and industry standards through the launch of a web-based system where mining tenders will be made public and accessible to suppliers.
d. Providing technical assistance to the industry (through the Chamber of Mines) on local supplier management including the implementation of a programme and coordination of activities.
e. Though the proponents have undertaken some activities (such as research and dialogues between stakeholders) in relation to the NSDP, the implementation of the key elements of the NSDP has been stalled mainly due to a lack of funds.

Source: IFC 2017, ACET 2016

Image by Анатолий Стафичук from Pixabay

IV. Evaluation of Ghana Local Content Strategy

As pointed out Ghana has embarked on a local content drive mainly using regulation. This has had some success including: 80 per cent of all prospecting licenses are held by Ghanaians; employment targets of less than 10 per cent of expatriate staff, as stipulated in the regulations, have been met; and local procurement, as a share of total procurement, has risen from 54 per cent (in 2011) to 76 per cent (in 2014) of purchases. However, it is difficult to say that this is transformational as the goals set are fairly modest. The question is whether the current approach as implemented can meet the goal of mining contributing to sustainable development. An evaluation of the strategy is discussed below.

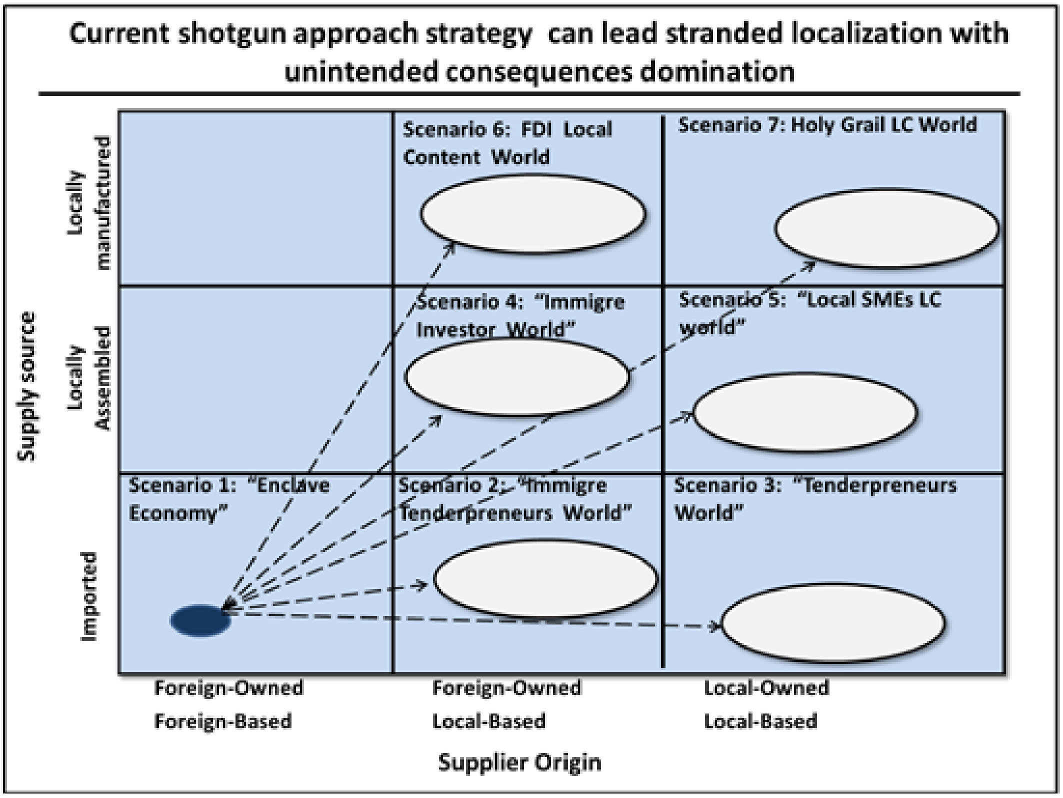
a) The Ghana Local Content Strategy Lacks a Clear Roadmap

Local content strategy usually stands on three pillars, local manufacturing capacity (goods and services), local skills and local ownership. A strategy should thus seek to develop these key pillars. The Ghana Local Content Strategy is largely focused on procurement and on employment. However, the strategy does not provide a road map on how these pillars are going to be built.

i. The Ghana Procurement Strategy

The Ghana procurement strategy aims to increase the procurement of goods produced locally and also goods produced by Ghanaians. Since the procurement wording states 'to the largest extent possible' with regard to the appreciation that not all inputs may be sourced locally due to say local capacity constraints, the field is open to local and foreign (either foreign-based or locally based) players. Also, goods can be imported, locally assembled or locally manufactured. The only restriction seems to be the goods that are on the procurement list, even though there is still allowance for foreign owned but locally based suppliers to participate. Figure 5 shows potential scenarios by using the two dimensions of the location of production (supply source) and the supplier origin (location and ownership). The well-known enclave economy is shown in scenario 1.

Fig. 5: Ghana Local Content Roadmap



Source: Author

Though the holy grail of local content is locally produced goods and services (scenario 7), it is clear that this is a long shot. And the strategy takes that into account. This is clear from the initial procurement list of eight items that is based on the assessment of local capacity. While this is good, there seems to be no idea of how to get to true local content. The current strategy is more akin to a shotgun approach where all targets are aimed at simultaneously. The two outcomes that are most likely from this situation are discussed.

The current regulation does not distinguish between locally procured goods that are imported and those that are locally produced. This creates a situation where companies can fulfil local content compliance by having a local person importing goods[21] on their behalf. Note that the local content law does little to stop local companies from getting a tender and subcontracting to foreign companies, essentially becoming fronts to these companies. Thus, though local procurement shows an increase to a high share of 70 per cent of consumables, this is misleading. For some companies only between 15 and 20 per cent of local purchases are goods and services produced locally[22]. This raises a number of issues. First, there are obvious efficiency losses. Mining companies have better knowledge and better logistics, so they can be better at importing according to their needs than a local supplier. These efficiency losses translate to higher costs (and maybe lower production) and thus less taxes (and also royalties). Thus, the public loses while a middleman benefits (they get a profit from supplying). In essence value has been destroyed. Also, some value is transferred from public coffers (reduced taxes) to private pockets (profits). Worse, this scenario can be exploited by mining houses if they offer these lucrative deals to politically connected people with the aim of using them to get favours. If 'tenderpreneurs' are well connected they can also rig the system and eventually distort the whole programme to their favour.

Scenario 7 (the ultimate objective) might never happen given the low capacity of the local industry. For instance, meeting the requirement for HDE cables is a challenge, even though Ghana has a several cable companies. Therefore, foreign-owned firms manufacturing locally can come to dominate the sector given their access to both capital and know-how. Indeed, 15 of the biggest suppliers registered with the Minerals Commission are branches of multinationals[23] and one of the biggest suppliers of the most demanded product on the procurement list, grinding media, is a foreign owned locally based manufacturer, named West Africa Forgeries (WAFO). This will become a bigger and a bigger challenge as the procurement list grows to include more and more sophisticated products. The fact that the regulation on local procurement has the caveat '..to maximum extent possible and consistent with safety, efficiency and economy.' does provide much room for excluding local companies. Without support to bridge the finance and know-how gap, the procurement list can only take the current strategy to scenario 6 at best.

ii. Employment Strategy

Employment is one key pathway to increase local participation. The key benefit of increased local employment is the transfer of skills, a key objective of local content. Also, having local people in key management positions means that they can shape the strategy of the company towards more local participation[24]. The current employment strategy has targeted mining companies and mining support companies and can also target employment in senior management and in technical areas. Depending on what is emphasised, this strategy can generate four scenarios as shown in Fig. 6. Each of the scenarios can have different impacts as shown below.

Though the current policy does seek to have Ghanaians working in all aspects of mining, there is a significant emphasis on replacing expatriates in senior management positions. This is not likely to lead to the transformation intended as these are likely to be very highly specialised skills. Skills that can be readily exported as Ghanaians acquiring those skills become marketable on a global scale[25]. The current strategy is skewed to creating a new elite, highly paid Ghanaians in the mining companies. It is technical skills that are targeted to mining support services (scenario 4) that can easily translate to other sectors and can indeed help to upgrade a very vibrant informal sector as these people diversify to other activities[26].

[21]Potential consumable opportunities include grinding media, lime, activated carbon, cyanide, and caustic soda. Equipment consumables include replacement parts for capital equipment (e.g., conveyor idlers). Other manufactured products offering opportunities are plastic products, uniforms, and personal protective equipment (World Bank 2012).

[22]Interviews with mining companies.

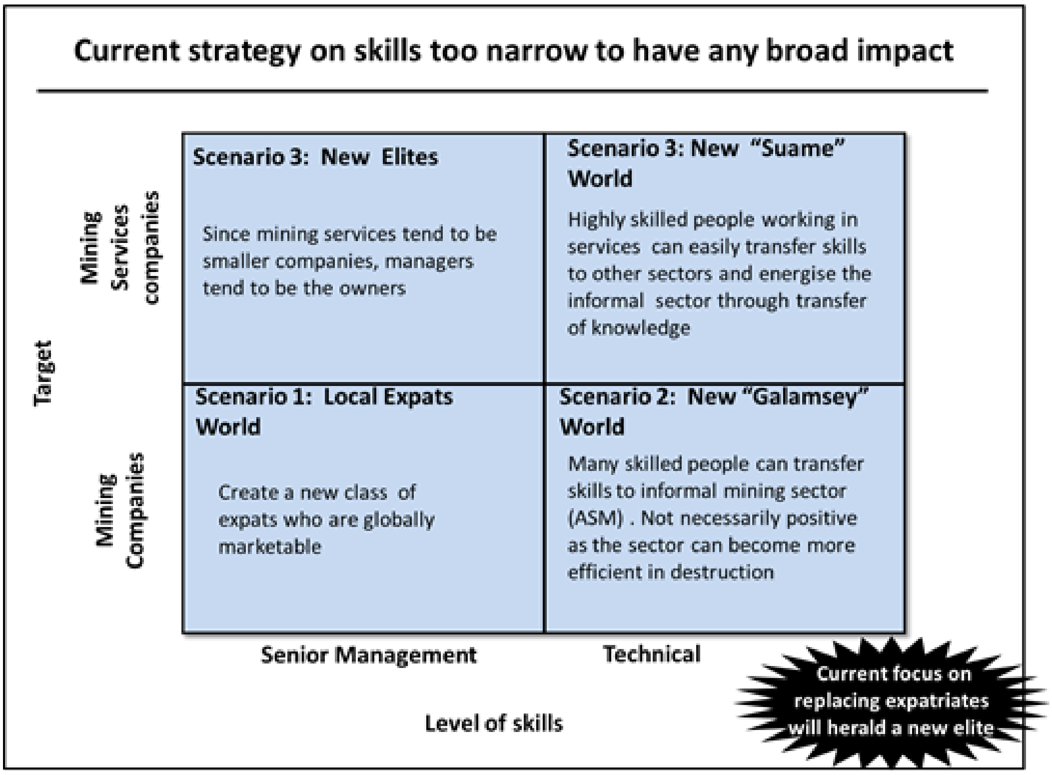
[23]Including Atlas Copco, Sandvik, Liebherr, Mantrac/Caterpillar, Carmeuse Lime Products and African Explosives, Boart Longyear, Lycopodium, Maxam (Bloch and Owusu 2011).

[24]Also, local suppliers may find it easier to pitch as they are talking to people they know.

[25]Indeed, it has been pointed out that since Ghanaian staff are paid less for the same qualifications, the highly experienced tend to seek expatriate positions outside Ghana (ACET 2016).

[26]For example, the vibrant cassava sector has seen local fabricators make many machines for processing cassava into various products. Gaining from this experience the fabricators have also developed food processing machines for other sectors (see Gatune 2016b).

Fig. 6: Local Content Employment Drive Scenarios



Source: Author

b) The Role of Government and Government Agencies Seems to be Limited to Promulgating and Monitoring Local Content Policy

The implementing agencies do not seem to see any active role for themselves or government in directly developing the capacity or 'getting dirty' to make local content real. The lack of a clear road map combined with a singular focus on mandates can cause serious unintended consequences. There is a real danger of creating an elite that can capture policy and actually shape the policy (unintended consequences coming to dominate).This has happened to some extent in South Africa where billionaires have been created through local content polices. This has led to capture by certain groups within the targeted population in some cases, prompting the South African government to intervene and prevent abuses such as fronting practices and opportunistic behaviours (OECD 2017).

c) Local Content Strategy has a Weak Linkage to the Broader National Development Plans

The growing global rhetoric of nationalism with regard to natural resources seems to inform much of the policy, rather than sound analysis of development goals and targeting the policy to meet this. Though Ghana's medium-term development policy does underscore the crucial role of minerals in meeting its aspirations and mining policy aims to enable mining to support sustainable development, there is little content on how this will be achieved. There is no explicit attempt to link the local content strategy with Ghana's industrial policy, no explicit link to the Ghana export promotion strategy, and no explicit link to investment promotion efforts[27]. Note that one of Ghana's leading producers of grinding media, the key procurement item for mining companies, is also a major producer of steel for the general industry. This producer is a one of the big foreign investors and also aspires to regional exports[28] underscoring the linkages above.
The key to increasing horizontal linkages between mining and the larger economy, is the building of skills. This is particularly skills in providing various services to the mining companies, such as plumbing, welding,

[27]It is hard to say why government agencies do not perform a better job of coordinating to derive synergies, but it is probably due to the 'silo' thinking where everyone protects their territories. A deeper understanding of why actors fail to coordinate activity is really a political and economic challenge. Ghana has tried to address the challenge by having a National Development Planning Commission (NDPC) to coordinate policy and strategy. However, the NDPC lacks the political clout and indeed the public has called for constitutional reforms to give it more power (see: http://www.ghananewsagency.org/politics/coalition-says-ndpc-should-be-constitutionalised-46707). Politics are about power not development. Development tends to be a by-product of political bargaining and thus the politics of Ghana have been faulted as key for the failure of mining to transform Ghana's economy (Abdulai 2017).

[28]West Africa Forgeries (WAFO) who make grinding media and Tema Steel Company Ltd, have one owner. They have plans to build a new plant with the intention to export to regional markets.

and equipment servicing as these are more general and can be applied to other sectors. There is nothing in the local content regulations or guidelines that indicate this intent. The Minerals Commission does not do a needs assessment to determine what critical skills are needed and also gives little input in the development of curricula and training programmes (though they do need to approve any training programme/proposal submitted by mining companies, but such a proposal will be about filling the needs of the applying companies and it is not clear how much the MC can influence the content of such a programme).

d) Trade Policy Goes Against Local Content Aspirations

Mining companies are allowed duty free imports of supplies while local manufacturers pay duty on imported inputs. This makes locally manufactured products more expensive. For example, grinding media, which is one of the items on local procurement list, is locally produced by three firms, West Africa Forgeries (WAFO), Tema Steel Co. Ltd. and Western Forgeries. Yet despite this, only 44.5 per cent of the grinding media was sourced locally. The local companies import that key ingredients[29] to make the grinding media at US$600 per tonne and they have to pay VAT and import duties. Yet if mining companies import the media (or even local suppliers registered with the MC), they get exemption from duties and taxes. This makes it hard to compete against imported media from China which can land at US$800 (ACET 2016).

e) The Local Participation Policy is Silent on Inclusivity

The current policy fails to mention that local participation needs to be inclusive. There is no provision for including the marginalised, women, the youth, people with disabilities and other traditionally excluded people. As designed, the policy is likely to benefit those who are already well-off and better capitalised.

V. Rethinking the Ghana Local Content Policy – Towards a More Inclusive and Broad- based Local Content Strategy

a) Local Content Policy Should be Anchored on a Broader Industrial and Enterprise Development Policy in a More Explicit Way and Incorporate Flexibility in Who is Involved and How it is to be Implemented

There is a need to revisit the mining policy document and rewrite it so that the linkage to broader development goals is more explicit. The mention of backward, forward and horizontal integration does imply this broader thinking. All the same, the mining policy needs to operationalise this. Currently the mining policy is more like a laundry list of aspirations[30] rather than a framework for a mining-led sustainable development strategy. The mining policy needs to move from abstract to more concrete statements of intent, providing a road map, actors and a mechanism for the coordination of the actors. More importantly, mining companies and other value chain players should be provided with a template to develop their local content plans. Local content plans submitted by companies should then be evaluated on this template. Also, the development of the plans should be more collaborative as it is the government who knows what it wants, and also mining actors have their own needs and constraints that governments might not be aware of. This collaborative approach can point to:

- Which aspect of the mineral value chain should be targeted to develop expertise? This should be guided by: (i) the potential for becoming a regional or global leader so that goods and services can be exported; (ii) the potential for the transfer of skills to other sectors and particularly agriculture and agro-processing.
- Which aspects of local content development can be implemented by mining companies and which

[29]Steel is the key input and also some chromium.
[30]The mining policy has a list of 20 principles and 16 objectives.

aspects might be better implemented by other players?

The National Development Planning Commission (NDPC) and the Ministry of Trade and Industry need to be core partners with the Minerals Commission and mining companies in developing a local content policy. The National Development Planning Commission can provide the broad framework for the long-term national development and this can identify opportunities for linking mining to the broader economy so as to support longer-term goals. This also points to potential entry points for development partners. Mining companies' presence is crucial, as they really can tell what practical and sensible short-term and long-term goals are. Also working together with mining companies can highlight opportunities for public-private partnerships (PPPs). Note that mining companies' core business is not development, but it appreciates the power of fostering local development as this gives a social license to operate. Corporate social responsibility activities are also more impactful when they can leverage other development resources. With improved relations, mining companies also enjoy a lower cost of living.

b) It is also About Incentives, Sequencing, and Collaboration

As pointed out the current implementation of local content policy has focused on mandates. However, a well-thought-out industrial and enterprise development policy needs three elements, namely incentives, mandates and partnerships.

Incentives are probably the best way to begin as they can foster the collaboration needed to develop local suppliers. As the capacity is already low, many local companies are unlikely to deliver according to the exacting standards required by the mining sector. Therefore, the focus should initially be on the development of capacity through collaboration. Rather than focusing on mandates, the focus should be on providing incentives so that the role players in mining can be more proactive in developing suppliers. One way is to create a supplier development fund from which firms can tap to develop suppliers. This can be a specialised fund or, as in the case of Brazil, the fund can be part of a larger fund for implementing an industrial development policy (See box 2).

The Brazil model provides a good template and is broader based in approach. This can be funded through mandating a certain percentage of the royalties to go to the fund or more appropriately by taxing the import of supplies. As mentioned, currently imported mining supplies are exempt from import duty, a factor that works against local produced supplies. A tax on imports can thus not only level the playground but also provide the funds to build the capacity of local suppliers. Ghana has experimented with this idea where a small percentage of the duties on imported foods went to the Export Development and Agricultural Investment Fund (EDAIF) that had a mandate for building the capacity of local industries to export and do agribusiness (and reduce food imports). Local industry firms could borrow at concessionary rates[31].

Using the EDAIF as template, Ghana can develop a supplier fund to target developing suppliers for the mining industry but with the objective of developing skills that are transferrable to other sectors, in particular agriculture and light manufacturing. The most reasonable way to fund this would be through reintroducing taxation on the import of mining supplies. Fines imposed on mining companies for failing to comply with local procurement requirements should also be deposited to this fund. Development partners can also be approached to support this fund. Suppliers who demonstrate a capacity to supply mining and other sectors should be given preference in accessing these funds. Export incentives should also be provided so that local suppliers can become regional suppliers. For example, grinding media companies that are doing well in Ghana should be helped to serve the region. Increasing scale will mean becoming more competitive over time.

As with any incentive, care must be taken so as not to be captured by entrepreneurs. Incentives must be very targeted and have a clear exit strategy. Otherwise the country can be caught up in an infant industry syndrome where infants never grow but have the political power to keep protective measures almost in perpetuity

[31]EDAIF gave subsidised credit at (12 per cent against a market rate of 28 per cent or more). EDIAF has now been converted to Ghana Export-Import Bank (EXIM) . But one can see a description ere http://www.ghanaiandiaspora.com/edaif/.

Box 2: Supplier Development – The Case of Brazil

Brazil provides a good approach to supplier development. One supplier development initiative aims to build capacity among SME suppliers and provide greater transparency of information about opportunities. It is managed by a business association funded by 15 firms operating in diverse sectors such as mining, energy and agribusiness. This approach has a number of benefits. It is a particularly efficient mechanism for increasing the capacity among potential suppliers as some inputs and skills are portable across sectors. It also supports a move towards the diversification and adaptability for suppliers (OECD 2017).

This effort also benefits from a number of programmes:

- The 'Bigger Brazil Plan' that allows tax incentives on production factors in order to increase competitiveness, technological innovation and the development of strategic sectors.
- Through its Development Bank BNDES, Brazil has defined an investment maintenance programme to provide loans at lower rates in order to reduce the cost of financing, in particular for the industrial purchases of machinery and equipment. The plan is aimed at promoting technological development, with a particular focus on knowledge and engineering-intensive sectors. To advance this objective, BNDES also provides loans for investments that promote the technological and production capacity for products not currently manufactured in Brazil.

Source: (OECD 2017)

as happens with many farm support programmes. Also the cost of incentives (opportunity cost) must be consistent with the benefits[32]. As capacity grows, incentives should be phased out and replaced by mandates. Where capacity may take too long and significant resources are needed, a public-private partnership maybe the best way to develop such suppliers. As experience in Trinidad and Tobago has shown, it may be not so much compliance with legislation as working closely with the industry to secure opportunities for local actors, to promote skills development, and to encourage the industry to catalyse growth in the types of goods and services that are needed in Ghana (Thomas et. al. 2012).

c) Seek Organic Growth as Much as Possible – Build on What Exists

Local content efforts have been undertaken even before the local content regulations were promulgated. Mining companies had already initiated plans and programmes to widen and deepen local content with the Newmont's Ahafo Linkages Programme, mentioned earlier, being an exemplar of this. Building on these, supplier development programmes are likely to have a high pay-off. Policies should seek to leverage what is already working and aim to scale it or replicate it. Indeed, the Organisation for Economic Co-operation and Development (OECD) (2017) makes the point that in case of Australia, which boasts a world-class mining service sector, the development of the sector happened organically due to the demand for such services from mining firms. However, this was supported by policies through, for example, ensuring the alignment of its education system with the demands of the industry through public-private partnerships.

d) From Corporate Social Responsibility (CSR) to Strategic CSR/Inclusive Business (IB)

As pointed out, current policy does not mandate inclusivity in local content. Some mining companies have been doing local development under the corporate social responsibility (CSR) agenda and developing local suppliers in an inclusive way. An example is the Chirano gold mine where local seamstresses are contracted to make working clothes. The supply chain department organised local seamstresses into a cooperative, provided them with additional training, support and a contract to sew overalls for the company (ACET 2016).

[32]Note that currently Ghana is using an incentive to entice global cocoa processors to do more processing locally. The processors get cocoa at a discounted price of 80 per cent of the export value. They are also located in free zones which have many incentives including generous tax holidays, import duties exemptions, fast track services with customs, good infrastructure and easy access to ports. Though the local processing of cocoa has increased dramatically as a result, this has mainly been low in value with low employment grinding operations. Many have complained that the cost of the incentives is not worth the benefits (ACET 2015).

This has however not been informed by an explicit inclusive business (IB) strategy or policy.

Inclusive Business

Inclusive business models are those which integrate low-income consumers, suppliers, retailers or distributors in their core business operations on a commercially viable basis. By adopting the models, companies build the capacity of low-income farmers and entrepreneurs; increase access to finance for suppliers and consumers; create or adapt products to meet local needs and requirements; and develop innovative distribution approaches to hard-to-reach communities.

Source: IFC, Please see https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Inclusive+Business

Both government and mining companies need to formalise inclusivity by moving from CSR to Strategic CSR (or Inclusive Business). The Government of Ghana has actually proposed to have a CSR law/regulation so that mining companies can better align their CSR activities with broader development imperatives (ACET, 2016). However, it is surprising that government does not address CSR in its local participation policy, which is the appropriate place to address CSR as it can be leveraged to make participation more inclusive (and fostering organic growth as pointed out above).Strategic CSR or inclusive business will require closer engagement between mining houses, the government and civil society. Each party needs to learn more about the others. Mining companies need to be educated by development partners and government on development and the development partners need to learn more about the business of mining. Trust also needs to be developed to make the relationship less adversarial, especially between mining and Civil Society Organizations (CSOs). This understanding can lead to the design of deeper and longer-term CSR programmes i.e. strategic CSR. The Minerals Commission needs to see the development of strategic CSR programmes as one of its key mandates.

e) Rethink the Skills Development Approach

Skills development should be a major focus as this is where there is a potential for the biggest pay-offs. As pointed out above, the design and implementation are also left to the mining companies, with agencies just approving plans and monitoring. The Ghana Minerals Commission needs to be more proactive. A reorientation is also required.

Skills Development Should seek to Develop Skills for the Local Economy and not for Export

Rather than insisting on a target to reduce expatriate staff, mining companies can be given the option of taking apprentices in various trades and giving them hands-on skills e.g. plumbing, electricians, mechanics, and plant operators. These are skills that are transferable to other sectors e.g. construction and agriculture. Thus, a programme of attaching Technical and Vocational Education and Training (TVET) graduates for, say three to five years, can give them experience and also help them to build up the capital to set themselves up. This can have a higher pay-off than having more Ghanaians in highly specialised jobs or management which are not readily transferable to other sectors.The mining industry can also develop partnerships with local fabricators to build their skills by for instance having some of their skilled artisans be attached to apprentices (as mentors). The mining sector can be encouraged to establish technology-transfer centres at various fabrication centres e.g. Suame Magazine[33].

Create a Skills Development Fund

Some mining companies are already spending a significant amount on training. However, the potential for free riding might reduce the training given if some companies decide to take a strategy of poaching. One solution is for the MC to impose a levy which is deposited into a skills development fund. The levy can be mandated on the basis of turnover or the number of employees or a combination of parameters. Mining companies can draw from this fund when they need to train staff. Those who do not use the funds lose out. Universities, TVETs and approved trainers can also be able to draw from this fund for their capacity development and also for developing new programmes (in collaboration with the MC and the industry).

[33]The Suame Magazine is an informal industrial/engineering cluster located in Kumasi, Ghana's second largest city. Covering an area of 20 square miles, it is home to over 10,000 enterprises, specialising in a wide range of engineering and manufacturing activities, mainly vehicle repair (garage services), automobile parts production and retailing, and metalworking. An estimated 100,000 workers are employed in the cluster, according to conservative estimates; although the cluster supports a wider working population of well over 200,000 people (Gatune 2016a).

f) Rethink Knowledge Transfer

While the need for knowledge transfer is acknowledged there is little evidence in terms of actions. It currently seems to be narrowly construed as the training of employees to take over expatriate jobs. But real knowledge transfer is about learning skills, new processes, new outlooks, etc. Upgrading local business will require a significant upgrade in know-how. The most effective way is to link them up with foreign companies that have the expertise. Government can encourage this through mandates and also incentives that encourage the formation of joint ventures (JVs)[34]. There can for instance be a favourable consideration with regard to granting licenses to JV applicants.

g) The Government Needs to Rethink its Role as an Investor

Experience shows that increased state participation is associated with greater benefits as the case of Botswana (and Chile) demonstrates. Debswana Diamond Company, a joint venture between the Botswana government and the De Beers Group of Companies, illustrates Botswana's semi-directed model of mining regulations. Under this model, the Botswana government collects substantial mining revenues, which it invests in social spending because of a transparent and accountable governance structure. The government also uses its regulatory role to integrate the mining sector into national development plans (Wilcox 2015). However, the state equity stake is not fully leveraged. Though by law the state has a 10 per cent share in the ownership of mining companies[35], the state has not leveraged this position to influence increased local purchasing. Furthermore, the state has an opportunity to increase the stake in mining companies to 20 per cent by law but has largely not taken this option[36]. An increased stake may mean less earnings but a greater role in shaping the growth of the sector.

Governments can invest in promising local companies and also provide them with subsidies and other support as part of its industrialisation policy. This will naturally spur the development of local content, as a local company will choose local suppliers. Obviously, this approach is fraught with danger due to the potential of political capture[37]. Another approach is to encourage JVs between local mining companies and global mining companies through incentives.

Image by S. Hermann & F. Richter from Pixabay

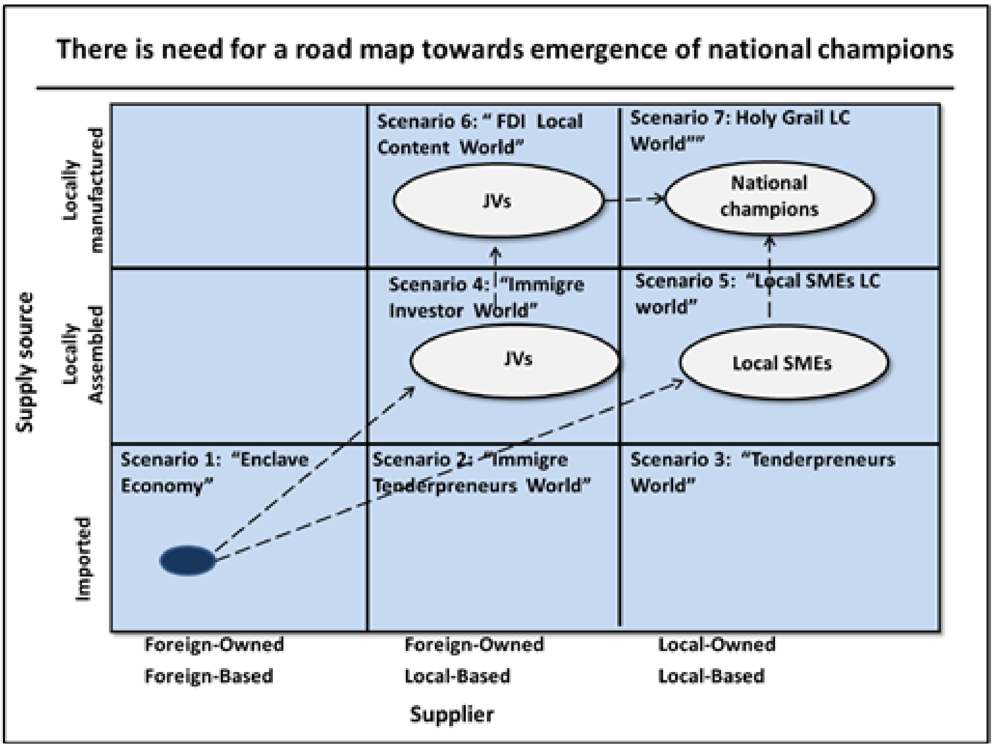
[34]Note that there are already many JVs being done with local companies (see for example, http://gulfindustrials.com.au/wp-content/uploads/2017/01/GL_Gbane_Project_25Jan17.pd), however there is no explicit policy by government to encourage certain types of JVs.
[35]Law provides for 10 per cent free carried interest in both exploration and exploitation rights with a provision to increase to 20 per cent on terms to be agreed upon.
[36]This is mainly due to fiscal challenges as increasing equity will require the government to buy the shares.
[37]For instance, government attempts to support the development of the local jewellery industry failed when jewellers were supplied with gold on credit by the government with the understanding that they will pay for the gold when they sold the jewellery.PR.

VI. Local Content Strategy – The Search for a Road Map

There is a need for a clear road map that creates national champions who can service the mining sector and also the local economy. This will require careful thought on how to build these. This will require a change in policy so that it does not encourage the emergence of entrepreneurs but rather middlemen (or 'tenderpreneurs'). A strategy is needed on how to grow SMEs to national champions who can become regional and global players.It is important to appreciate that a vibrant local-content-driven industry will have an ecosystem that has local and foreign players. Foreign players can transfer technology to local players through spillovers and also more formally through joint ventures. Therefore, the FDI policy needs to be designed to ensure that the foreign players of the 'right scale'[38] are attracted. This will also require well-crafted JVs that enable learning and technology transfer.

Supplier development programmes will be the other key route to developing local SMEs and moving them to become national champions. This should seek to upgrade SMEs that show promise. As mentioned this will be about developing collaborative relationships rather than mandating. Figure 7 shows a potential pathway to create local national champions. The well-thought use of JVs to match local partners with foreigners of the right scale that will create partnerships that enable technology transfer will be one route. Another route will be some programmes that seek to identify SMEs with potential and support them with know-how and access to capital for upgrading equipment to the required standards through subsidised credit, such as the supplier development funds mentioned. For instance, the local cable manufacturers e.g. Tropical Cable and Conductor Ltd., who are currently not meeting the standards for mining companies with regard to imports, can be supported to upgrade so as to manufacture according to the standards required by mining companies.

Pathways to Developing Local Content-Driven Industrialisation



Source: Author

[38]Or technological distance.

VII. Conclusion

Mineral wealth plays an important role in Ghana's economy as it is a major contributor to the GDP and exports. While Ghana cannot be said to have suffered from a 'resource curse', its mineral wealth has not led to the transformation of the economy. Local content provides an avenue for mining to contribute towards sustainable development. However, this needs careful consideration in terms of deciding which section of the mineral value chains must be targeted, and which technologies must be transferred. In the short to medium term, the objective should as much as possible seek to develop lateral connections so that mining can help to upgrade other sectors. There is a need for a clear road map to avoid unintended consequences.

However, for Ghana, mining remains largely an enclave economy that is weakly linked to the rest of the economy. Therefore, Ghana continues to rely on the fiscal benefits of mineral wealth (royalties and taxes), leaving a gap for the potential to gain greater value from developing the industries around mining activities. All the same, the need for developing these linkages has been appreciated and local content laws were developed to help in this regard. However, the current approach taken by Ghana lacks a clear roadmap. It has the potential for unintended consequences such as creating a new enclave economy of well-connected local suppliers who continue to import supplies on behalf of mining companies. Indeed, the taxation regime which exempts mining supplies from import duties while charging import duties on inputs used by local manufacturers of mining supplies, favours the development of local importers ('tenderpreneurs') as opposed to entrepreneurs (manufacturers). It also makes local goods more expensive than imported inputs.

All the same, the promulgation of a list of goods which must be procured locally is encouraging, as it provides some protection to locally manufactured goods. However, this needs to go further. It must also provide support to develop promising local suppliers further and help them to upgrade their quality so that they can meet the high standards demanded by the mining industry. Indeed, by having a strong mining supplies sector, there is potential for Ghana to become a mining supplies hub. In this way it can tap the significant West African market in the same way in which Ghana supplies skilled labour for the industry in the region. Therefore, suppliers' development should be of a higher priority for the Minerals Commission, as opposed to the current focus on policing mandates. Developing competitive suppliers will require collaboration between the government and mining companies (and also the development partners). Thus, moving from a stance of promulgating mandates to one of creating incentives for closer collaboration will yield better results. Indeed, much can be achieved from leveraging the initiatives which some mining companies have put in place to develop suppliers.

The excessive concern with reducing expatriate staff in mining companies also misses the big picture of developing skills that are applicable to the broader economy. Highly skilled Ghanaians in the mining sector only serve to create yet another local elite who are more likely to be poached as expatriates in other countries. On the other hand, focusing on more general skills will mean that spill overs will help to upgrade the vibrant informal sector. The fact is that the skills required in the sector are highly specialised and furthermore manufacturing is capital-intensive. Therefore, reliance on a strategy of developing an exclusively indigenous class of suppliers will not work or will just be too expensive. A more reasonable approach is to pair promising local suppliers with foreign-based suppliers through well-crafted JVs that can bring in capital and also facilitate the transfer of skills. Thus, part of developing supplies is matchmaking (to ensure the right fit) and facilitating a successful marriage between local and foreign investors.

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The United Nations University Institute for Natural Resources in Africa (UNU-INRA) is one of the 14 research and training centres of the United Nations University (UNU) and is the only one focusing predominantly on Africa. We provide cutting-edge solutions and knowledge outlets for natural resource planning and management from an African perspective.

UNU-INRA serves as a platform to amplify African voices and showcase made-in-Africa solutions. We harness the incredible talent on the continent and also strengthen and develop capabilities by equipping African researchers, entrepreneurs and policy actors with the requisite knowledge to sustainably manage natural resources. We deliver research, capacity development and policy advice, and we convene spaces for knowledge sharing.

Our operating units across 5 countries in Africa (Senegal, Ivory Coast, Cameroon, Zambia and Namibia) give us on-the-ground knowledge, while our global network of experts and the wider UNU group give us a comparative advantage in the production and export of knowledge.

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