Local Content and Value Addition in Ghana's Mineral, Oil, and Gas Sectors: Is Ghana Getting It Right?

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"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*

Abstract

Local content and value addition strategy is one of the methods resource-rich countries are adopting to increase the benefits from resource extraction to their economies, beyond securing optimal rents (royalties, taxes, shares, and other revenues). The goal is to promote linkages with other sectors of the economy through four main pillars: local employment opportunities, in-country spending and procurement of local goods and services, technology and skills transfer, and local participation through equity and management. Value addition promotes further opportunities for processing of the extracted resource. The theory is simple and laudable; the challenge is in the practice. Is Ghana getting it right?

The results are mixed. In the mining sector, Ghana, long Africa's second largest producer of gold, operated on a scale sufficient to increase the development of the local supply chain. The fact that it has not is more a failure of strategic development policy than the lack of opportunities. Local content has also suffered from quality and standards shortfalls of local companies, poor competitiveness, limited access to finance for start-ups, and unreliable power. Current efforts may not be enough to create significant backward linkages. Can Ghana increase the opportunities for value addition in its gold and diamond industries?

In the oil and gas sector, the range of government actions to promote local content has been more satisfactory, though it may be too early to tell. However, there remains a lot to be done. Ghana may be doing well in employment of local workers, but less so with service contracts, procurement of local goods, and local equity and management, and is definitely falling short in technology transfer. The problems lie in the limited capacity and high costs of local companies, insufficient financial support, inadequate standards of certification, and inability of contractors to meet high industry standards. The prospects depend on how the industry, local businesses, and state institutions work together to overcome the obstacles facing local content opportunities.

1. Introduction

1. Governments can increase the value contribution of natural resources to their countries' growth and development through both fiscal and non-fiscal measures. Fiscal measures generate revenue directly to government through royalties and other tax instruments. Historically, with few exceptions, most resource-rich sub-Saharan African (SSA) countries have focused primarily on these direct contributions to government coffers. In the last decade, a number of established and emerging resource economies have sought to promote non-fiscal measures, so-called local content and value addition (LCVA). These measures seek to better integrate extractive resource activities with local economies, expand employment opportunities, and stimulate broad-based growth of the non-resource sectors.

2. LCVA measures aim to create backward linkages (i.e., a reliance on inputs from the local economy and local job creation, and increasing local participation through ownership and management); forward linkages (i.e., processing sector output before exporting through the establishment of refineries, processing plants, petrochemical industry, and fertilizer production); and lateral linkages through transportation, communications, and financial services. From Angola to Indonesia, Nigeria to Timor-Leste, Trinidad and Tobago to Zimbabwe, the theory behind this paradigm shift in resource development is simple and laudable; the challenge is in the practice. The question we pose is simply: Is Ghana getting its LCVA policies and implementation right? If not, what are the constraints and untapped opportunities?

3. This study examines the approach, progress in implementation, opportunities, and challenges in pursuing LCVA strategies. The specific questions of interest are:

a. What has been Ghana's approach in pursuing local content and value addition in both mining and oil and gas? What is the nature of policies, laws, administrative measures, and institutions that promote and regulate local content and value addition?

b. What has been the response of mining and oil and gas companies in carrying out Ghana's requirements for local content and value addition?

c. Are there elements of local content that are best managed through legislation or administrative measures?

d. Is Ghana getting it right?

   i. What are the trends and achievements to date?

   ii. What has been the role of government? What has government left undone, and what more could it do?

e. What are the untapped opportunities?

4. The first section of this study provides a general background, followed by a short explanation of what local content and value addition is and why it is emerging as a development strategy for resource-rich economies. The second section turns to the specific context of the questions, first as applied to mining, and second as applied to oil and gas.

2. The Background

5. Prompted by the boom in mineral and oil commodity prices in the mid-2000s, and by the sharp rise in the profits of resource companies while resource-rich countries stayed poor, governments in countries such as Nigeria and Brazil began to set local content requirements. Local content policies have since spread rapidly, often broadened to include value addition, and have now entered the agendas of most resource-rich countries. What was once a "gentlemen's agreement," according to Mercedes E. Milam of the Ministry of Mines, Industry, and Energy of Equatorial Guinea, is now increasingly a binding constraint on resource companies. A 2013 report by McKinsey Global Institute estimates that 90 percent of resource-driven countries now have legal provisions on local content.[1]

6. The push for LCVA has also coincided with the trend among resource companies to move away from the vertically integrated corporate model toward outsourcing different activities in the supply chain.[2] Thus, finding the lowest-cost suppliers whose output is of the required quality, and who can meet delivery schedules in the local economy where resource extraction takes place, provides a winning formula for all.[3] An efficient, competitive local supplier meets the needs of industry, expands the depth of outsourcing, opens up more opportunities for suppliers further downstream, creates jobs at home, promotes technology transfer and learning by doing, and offers opportunities for local management and ownership.

7. Since 2010, Ghana has been working on local content policies in both the solid minerals and the hydrocarbon sectors. The passage of the Minerals and Mining (General) Regulations, 2012-LI 2173, marked the beginning of the implementation of local content policies in the mining sector. In oil and gas, the Petroleum (Local Content and Local Participation Regulations), 2013-LI 2204, defined Ghana's expectations of local content. Ghana is one of the few countries to have dedicated regulations dealing with local content in the petroleum industry, and for good reason.[4] Speaking at the 2012 New Year School, the chief executive of the Ghana National Petroleum Corporation (GNPC) remarked that the local content of spending in Ghana represented only 10 percent of the total $6 billion that had gone into exploration, development, and production since petroleum operations began in the previous few years.[5] If Ghana was to benefit significantly from oil and gas, this had to change. Expectations for government actions, industry collaboration, and local private sector participation have been higher ever since.

3. Defining Local Content

8. "Local content" is a value-laden concept, and there are a host of definitions. To put it simply, local content means securing direct and indirect opportunities for employment and procurement of local goods and services, while at the same time fostering the development of local skills, technology transfer, and the use of local manpower and local manufacturing. The World Bank defines local

[1] "Reversing the curse: Maximizing the potential of resource-driven economies," McKinsey Global Institute, December 2013.
[2] Urzua, 2012.
[3] Morris, Kaplinsky, and Kaplan, 2012.
[4] Columbia Center for Sustainable Development, 2014.
[5] Ghana Oil Club, Daily News Highlights, Jan 23, 2012.

content broadly in terms of employment and procurement of inputs, as well as on the basis of the domestic ownership of the firm, i.e., "domestic preference qualification." The African Development Bank (AfDB) goes a step further to define "local firms" based on the place of registration, a majority of board members being nationals, and the proportion of shares held by nationals. Ghana's local content broadly focuses on the degree of use of local expertise, the purchase of local goods and services, the participation of local businesses, and the financing of resource activities. [6]

4. Local Content and Value Addition in Mining

4a. Approach

9. The Minerals and Mining Law, 2006 (Act 703) sought to promote a localization policy and facilitate production linkages. Clause 50(3) of Act 703 calls for eventual "localization" of mining staff. However, the frameworks provided in the legislation were too generic and left the Ghana Minerals Commission (MC) with considerable discretion in enforcement. The passage of the Minerals and Mining (General) Regulations, 2012-LI 2173, is expected to be a game changer. The LI 2173 provides a clear interpretation of Act 703 and focuses on three areas, namely: (i) the employment and promotion of a local workforce, (ii) the procurement of locally produced goods and services, and (iii) additional licensing and reporting requirements. For the purposes of the current discussion, our focus is on the first two areas.

Employment and Promotion of Local Workforce

10. The regulation requires holders of mineral rights to hire a minimum proportion of local staff in various employment categories (subject to some exemptions, e.g., small companies, regional offices, etc.), with the MC working with mining companies to identify staff positions that can be filled by Ghanaians, local candidates who can be trained to replace foreign staff, a training program, and timing for local staff to replace foreign staff.

11. This provision requires existing license holders to present for approval a program for the recruitment and training of Ghanaians, including plans for the replacement of expatriates with Ghanaians. The regulation aims to promote local knowledge and to minimize the number of expatriates assigned to less complex jobs for which local capacity exists. The regulation specifically imposes a ceiling on the number of expatriate staffers a mining lease holder can have. It requires that the proportion of expatriate staff should not exceed 10 percent of the total of senior staff within the first three years, and 6 percent after three years. In other words, after six years of the passage of the LI, mining lease holders' maximum expatriate staff numbers should not exceed 6 percent of the total senior and management staff of the holder. Unskilled labor and clerical positions are generally to be reserved for

[6] The Nigerian National Petroleum Corporation (NNPC) views local content broadly as "the quantum of composite value added to or created in the Nigerian economy through the utilization of Nigerian human and material resources and services in the exploration, development, exploitation, transportation, sale, and processing of Nigerian crude oil and gas resources…." [Nigeria Local Content Policy, 2005]

Ghanaians. In addition, a comprehensive five-year plan to replace expatriates with Ghanaians, including training programs, is to be submitted to the MC for review and approval.

Procurement of Locally Produced Goods and Services

12. The procurement structure of the largest gold producer in Ghana, AngloGold Ashanti, reported in the International Council on Mining & Metals (ICMM) Ghana Country Case Study published in 2007, is indicative of the industry's weak linkages with the domestic economy.

Table 1: AngloGold Ashanti Procurement Linkages, 2004

Procurement Item	Ghanaian Content	Procurement Item	Ghanaian Content
Electric power	High	Fuel	Low
Mining contractor	High	Buying agent	Low
Lime	High	Cyanide	Low
Banking and insurance services	High	Mining equipment	Low
Cement and transport of cyanide	High	Grinding media	Low
Supplier of food items	High	Mining machinery spares	Low
Drilling	Medium	Mill and crusher spares	Low
		Chemicals	Low
		Engine spares	Low
		Tires	Low
		Activated carbon	Low
		Pumps and spares	Low
		Safety equipment	Low
		Explosives	Low
		Diesel	Low
		Motor spares	Low

Source: ICMM Ghana Country Case Study: "The Challenge of Mineral Wealth: Using Resource Endowments to Foster Sustainable Development," July 2007

The high, medium, and low content indicators mean, on average, 75 percent, 50 percent, and 10 percent Ghanaian content by value, respectively. The report observes that for many of these items, there was a "very limited number of companies supplying the industry at the international level" (p. 41). The LI 2173 is intended to alter this picture in order to maximize local content.

13. The regulation clearly states a preference for local products to the maximum extent possible. It enjoins holders of mineral rights to give preference to materials and products made in Ghana; service agencies located in the country and owned by citizens; and companies or partnerships registered under the Ghanaian Company Code or Partnership Act. Both mineral title holders and mining support providers must meet the following requirements:

a. A procurement plan, covering five years, is to be submitted within a year of commencement of the regulation.
b. The procurement plan will specify procurement and use of local products to the extent possible.
c. The procurement plan will be guided by a procurement list, developed by the MC and to be revised annually.
d. Mining businesses with approved procurement and localization plans will each year submit to the MC an annual report demonstrating their level of compliance.

4b. Implementation

14. Like most of the local content policies in the West African subregion, Ghana's policy in the mining sector is in the early stage of implementation. Passed in 2012 and implemented in 2013, it is arguably too new for its impacts to be fairly assessed on their own. Much depends on cooperating factors. For example, available information from the MC and the Ghana Chamber of Mines suggests that most of the major mining companies have submitted both localization plans and procurement plans to the MC for approval. The MC has a committee that reviews the plans and discusses them with the relevant company. After several consultations between the Chamber and the MC, an initial list of 18 items earmarked for local procurement was pruned down to eight, constituting about 60 percent of the value of the total local procurement budgets of the companies.

15. In another example, the localization plans have also been reviewed by a committee including a representation from Ghana Immigration Services. This means that approval for residence and work permits for expatriate staff of mineral rights holders will depend on satisfactory compliance with the localization regulation. As of September 2014, only one large-scale mining company had yet to receive approval of its localization and procurement plans, due to what were described as "minor" and "resolvable" differences in approach.

Collaborative Implementation

16. According to the MC, the maiden rollout of LI 2173 has been relatively smooth, for two reasons. First, the general perception of an enclave culture of a mining industry, largely dominated for over 100 years by foreign direct investment, with its attendant perception of revenue flows abroad to service foreign capital, meant that altering this negative perception by embracing the local content policy was in the best interest of the companies. Already, in the 2000s, some major mining companies, such as Gold Fields, Newmont, and Golden Star Resources, had begun to outsource some of their activities, including transport services, to local companies, and to increase the values of their procurement from local sources.[7] By 2007, Gold Fields, for example, had begun to source a significant amount of its grinding media requirements from Ghanaian suppliers. Similarly, Newmont rolled out its own local procurement strategy at its Ahafo operation two years prior to LI 2173.

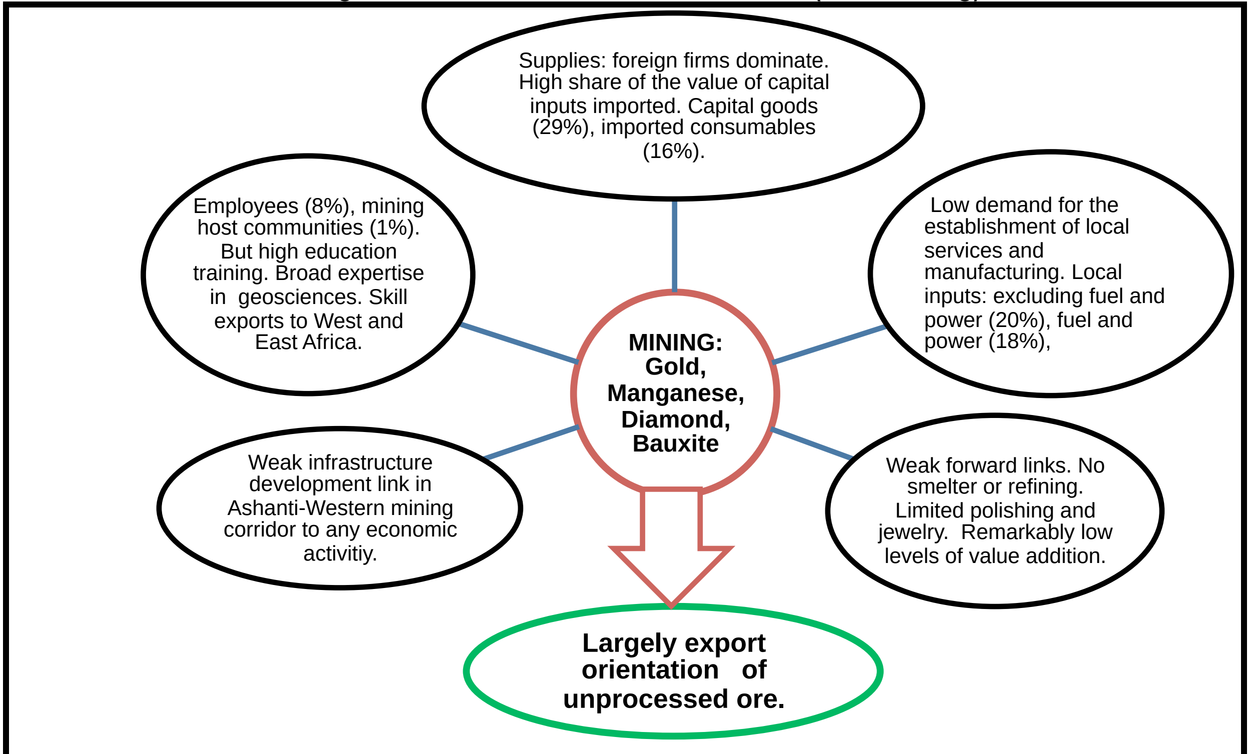
17. Second, and related to the above, is the simplicity of the LI 2173 and the collaborative relationship between the relevant stakeholders, including the industry players represented by the Ghana Chamber of Mines and the regulator prior to the passage of the legislation. The local content policy on mining in Ghana was the product of a collaborative dialogue between the industry players through the Ghana Chamber of Mines and the regulatory authority. The MC did not impose unrealistic requirements; for example, unlike the local content regulations for the oil and gas sector, which targeted 90 percent "full local participation" within 10 years, the mining local content policy leaves room for a determination of what is achievable within five years, with an accompanying local supply chain development plan.

18. Indeed, against the background of Ghana's long mining history, both the MC and the Chamber anticipated the emerging central place of local content policies in the extractives industry. In 2011,

[7] Ghana Chamber of Mines, 2012.

through their collaborative work, the MC and the Chamber created a list of 28 products from current local goods and service suppliers and estimated potential demand (based on increases in operational needs or where local suppliers could increase their capacity). The list served as the basis for the analysis and the development of a national supplier development program for the mining sector, with the goal to build the capacity and productivity of up to 35 suppliers over the course of three years and increase the share of Ghana-produced and -bought items goods and services.[8] This framework provided the basis of collaboration and a non-confrontational approach to the implementation of the local content policies.

Figure 2: Metals and Minerals in Ghana
Linkages and Distribution of Funds in 2008 (Gold Mining)



Source: Spending data taken from Bloch and Owusu, 2011

4c. Assessments

19. Figure 2 summarizes the nature of linkages and the assessment of the strengths of the linkages. Of the total spending in 2008 of $2.3 billion, 20 percent went to local procurement (excluding fuel and power) and 18 percent went to fuel and power. Imported consumables were 16 percent, while capital spending on largely imported plants and equipment was 29 percent. But the 20 percent local sourcing of the value $465 million does not necessarily translate into the desired backward linkage effects if mining support companies are simply local branches of multinational companies and need no domestic linkages in manufacturing or in financing. In *Making the Most of Africa's Commodities*,[9] local sourcing of each of three large gold mining firms in Ghana averaged 73 percent (about $275 million) of total operational spending in 2011 and relied on 1,062-1324 local

[8] A list of the products is provided in Annex 1.

[9] UNECA, Making the Most of Africa's Commodities, 2013

firms. Local firms were reported to be involved in providing smaller equipment components, consumables, logistics, maintenance and repairs. Yet, these figures, the report added, "are not indicative of local value addition or of domestic ownership of local businesses".

4d. Discussion: Prospects for Linkages and Value Addition in Mining

Backward Linkages

20. However laudable government efforts have been lately in developing the local content guidelines, it is the view of many that short of an active exploration program or the building of mining-related infrastructure, the prospects for backward linkages may be too limited after a century of mining. In 2008, the scope of backward linkages in imported consumables stood at $372 million. Machine tools, spare parts, and major equipment repairs are all energy-intensive industries, areas in which Ghana lags considerably behind in competitiveness and in skill and technology requirements. Ghana's prospects of taking advantage of the imported plants and equipment are also low because these are capital-intensive, learning innovation products. The Ghana-feasible products for future backward linkages are listed in Annex 1. What could feasibly be manufactured locally hinges not only on technical and quality-driven capacity but also on the reliable supply of energy, even if suppliers may still have to import some inputs.

21. The generous list of mining goods that can be imported as tax-exempt has not encouraged forging linkages with the industrial sector. Moreover, an indicative industrial policy on how Ghana plans to leverage mining activities, as a step to building related spinoffs and advancing economic development, remains weak, with only limited expression in recent medium-term development plans.[10] In fact, "local content in the mining industry" as a means to increase the contribution of mining to sustainable development is mentioned only once (in 2013) in the Government's Budget Statements and Economic Policy between 2003 and 2014. It is uncertain, therefore, how the lack of a clearly articulated policy and industrial strategy may have undermined Ghana's opportunities to expand mining-related economic activities.

Value Addition

22. Perhaps it is the value addition of the gold and diamond extracted, rather than value addition elsewhere, that offers greater prospects. Although Ghana has long aspired to further processing of its gold at home, steps to this end have been small and slow. According to the Budget Statement of 2004, a revolving credit of unrefined gold was created for the purpose of promoting increased jewellery production and sales with the assistance of AngloGold Ashanti and Gold Fields. A diamond-cutting plant was licensed to process local diamonds. But barely two years into the programme, gold given were mismanaged and the credit was terminated according to the Minerals Commission. With regards to diamond, there is some limited polishing going on at the PMMC with scope for improvements, although diamond production, according to the Chamber has fallen sharply from 1.05 billion carats in 2005 to only 159 million carats in 2013.

[10] Recent plans are Ghana Poverty Reduction Strategies (2002–2009) and the Ghana Shared Growth and Development Agenda (2009–2013).

23. A survey of the major mining companies by the African Center for Economic Transformation (ACET) in 2012 showed that between 2000 and 2012, further domestic processing of gold ranged from nil (Newmont) to below 20 percent (Gold Fields) of minerals.

24. According to the MC, currently, Asap Vasa Company Limited, owned by four Ghanaians, is the only private gold refinery plant in the country operating and refining gold into granules, coins and bars. Small-scale miners remain the main suppliers of gold and diamonds to the local economy for further processing. The window of opportunity may lie with the Precious Minerals Marketing Corporation (PMMC), its ability to be competitive in buying and to provide incentives for small-scale miners to sell to it. Current forward linkages appear limited to its jewelry manufacturing wing for both local and export markets. A recent announcement suggests that Government has firmed up plans to establish a major gold refinery plant by the end of 2015 through a Public-Private Partnership model.[11] Ghana Consolidated Diamonds, divested in 2013 also expects to expand processing opportunities through innovation in product design and market penetration.[12] What will it take for Ghana Consolidated Diamonds to follow the example of Botswana (Box 1) to create more value addition at home?

Box 1: Botswana Seeking More Value Addition to its Diamond

The long recognized need to diversify its economy led the government to promote the development of a cutting and polishing industry. In the 1980s, government and De Beers in Public-Private Partnership established three diamond cutting and polishing factories. Despite initial challenges, Botswana's vision to increase forward linkages in diamond has continued by developing infrastructure, providing appropriate fiscal regime. Debswana, a 50/50 joint venture between Government of Botswana and De Beers is the country's main mining company. Botswana has continued to create more linkages in the value chain in the cutting and polishing industry and in jewellery manufacturing industry (Morris, et. al. 2012). In 2013, the nearly $6.5 billion diamond trading in rough diamond was scheduled to be transferred from London to Gaborone, the Botswana capital to further increase beneficiation to the Botswana economy.

5. Local Content and Value Addition in Oil and Gas

25. Against the background of the belated efforts to encourage local content and value addition (LCVA) in the minerals sector, Ghana approached its LCVA in oil and gas in a dedicated way, with the view to maximize the direct and indirect opportunities. It could not have been lost on policy makers that exploration, development, and production require significant capital- and knowledge-intensive inputs. Ghana is not likely to be able to take advantage of the opportunities in the short to medium term, whether it is procurement, investment participation, or high engineering services and comparable manufacturing competition.

[11] Business and Financial Times, January 28, 2015.

[12] This is based on conversation with the PMMC, a state-owned enterprise established by PNDC Law 219. Its mandate is to purchase gold and issue licenses to all gold and diamond exporters. With 17 gold-exporting companies now operating in the country, PMMC has lost its monopoly as a gold exporter for small mining companies, with significant implications for value addition and revenue losses to the state.

5a. Approach

26. Ghana signalled its local content expectations as early as 1983, with the establishment of the Ghana National Petroleum Corporation (GNPC). The Petroleum (Exploration and Production) Law (PNDC Law 84) of 1984 laid the foundation for a broader local content regime. However, the relevant regulations are made under the Petroleum Commission Act, 2011 (Act 821). Government published the Local Content and Local Participation Policy framework in 2011, followed by legislation in 2013.

27. By the legislation, local content means "the quantum or percent of locally produced materials, personnel, financing, goods, and services in the petroleum industry value chain and which can be measured in monetary terms". And value addition simply means "the economic improvement of a product or service in the petroleum industry." The objectives of Ghana's local content as defined in the 2009-2010 National Energy Policy are summarized in Box 2.

Box 2: The National Energy Policy: 2009–2010

a. The development of local capacity in all aspects of the oil and gas value chain through education, skills, expertise development, transfer of technology, and knowhow;
b. The achievement of maximum practicable influence over development initiatives for local/domestic stakeholders;
c. The maximization of local content and local participation in all aspects of the oil and gas industry value chain within a decade;
d. The increase in the capacity and international competitiveness of domestic businesses and industrial sectors; and
e. The creation of supportive industries that will sustain economic development.

Source: Ghana National Energy Policy: 2009–2010

5b. Implementation

28. As part of government plans to implement the local content policy, the National Energy Strategy required the preparation and implementation of a Local Business Development Plan by the Ministry of Energy, in conjunction with the Association of Ghana Industries and the Ghana Chamber of Commerce, and the setting up of a Skill Development Committee, as well as the development of a Middle-Level 1 Skills Development Program to train middle-level personnel.

Box 3: The six key highlights of Ghana's Local Content Legislation LI 2204 (2013)

- Employment requirements,
- Procurement requirements,
- Training requirements,
- Technology transfer requirements,
- Monitoring and enforcement mechanisms, and
- Government's obligations in support of the companies program.

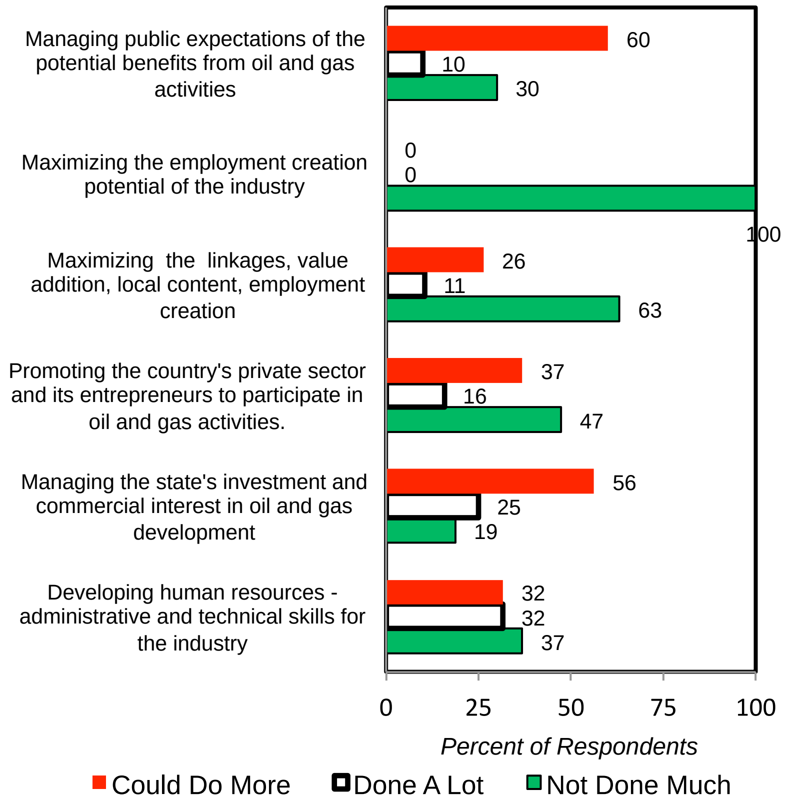
29. The framework envisioned a strong role for government. Box 3 summarizes six highlights of the comprehensive course of action. The quantitative targets for employment and procurement of goods and services are summarized in Columns 1 and 2 of Table 2.

30. On natural gas, the government recognized the potential to support development efforts by generating employment, and creating new infrastructure as the foundation for a vibrant petroleum and petrochemical industry. The goal was to create a new growth pole for the Western Region and to make Ghana a net exporter of power in the West African sub-region. Other important areas envisioned in natural gas development were the contributions to downstream commercial activities, including providing raw material such as feedstock; expansion of local cylinder manufacturing capacity in support of the National LPG Programme; establishment of a petrochemical industry to support fertilizer production; and plastics to boost agricultural and industrial development.[13] The Ghana National Gas Company was established to ensure a coordinated development strategy for gas resources.

5c. Assessment of Government of Ghana's Actions

31. In a survey conducted by ACET in 2012,[14] there was general agreement that government had done well in providing a measure of clarity about the upstream regulation of petroleum activities with the passing of the Petroleum Commission Act, 2011 (Act 821), and in providing regulations dedicated to local content and participation. There was also the general acknowledgment of the high public voice in relation to the development of the local content and participation framework.

Figure 3: Assessment of Government Performance



Source: Survey of stakeholders, 2012

32. However, support for government actions was found to be weak in four areas, namely:

a. Promoting the country's private sector and its entrepreneurs to participate in oil and gas activities
b. Maximizing the linkages, local content, and value addition of the industry
c. Maximizing the employment creation potential of the industry
d. Managing public expectations of the potential benefits from oil and gas activities

33. As captured in Figure 3, government's efforts were rated as unsatisfactory in (a) the transparency and accountability of the institutions involved with training and promoting local content, especially in building the capacity of small and medium enterprises (SMEs); (b) developing the human talent in petroleum activities; and (c) increasing local value-added investments or equity in the petroleum

[13] National Energy Strategy.
[14] "Diagnostic Study of Policy and Institutional Capacity Challenges Facing the Government of Ghana in Regulating and Managing the Petroleum Sector," African Center for Economic Transformation, study, May 2012.

sector. What has changed two years later? The results of fieldwork carried out in 2014 on the state of implementation of the local content regulations are summarized in the last column of Table 2.

Observations

Legislation, Mandatory Local Content

34. Legislation was passed and the Local Content Committee (LCC) established in July 2014. The LCC has since developed templates for information gathering and monitoring of financial and insurance services, goods and services procurement, training and capacity, technical and skills transfer, and reporting. Routinely, the LCC approves procurement plans for suppliers on a quarterly basis. Compliance to date, however, is mixed, in part because of the capacity of the Petroleum Commission to develop the instruments for information gathering.

Table 2: Local Content and Value Addition Provisions and Response to Progress Made to Date

Area of Local Content and Value Addition	Requirement	Responses and Perceptions
Interest of Ghanaian Companies in Petroleum Exploration, Development, and Production	• Preference to indigenous Ghanaian company. Ghanaian companies shall have priority in the award of oil blocks, oil lifting licenses, and all contracted projects. • Non-Ghanaian companies shall provide for at least 5% Ghanaian ownership, not transferable to non-Ghanaians.	• According to GNPC, there is high involvement of Ghanaians in onshore and offshore activities. Several Ghana companies currently provide services to oil companies, but industry is extremely capital-intensive and not easy to mobilize financial resources from financial institutions. • There are credibility problems in ensuring openness and transparency in tendering process to guarantee accountability and safeguard against favors in the award of contracts. • High risk of fronting and "foreign local partnership" in the industry. • LI 2204 can be counterproductive and preclude local participation. The requirement that Ghanaians' ownership must grow means they have to mobilize additional capital each year.
Provision of Goods and Services by Ghanaian Companies	• All operators shall as far as possible use goods and services produced or provided in Ghana by Ghanaian companies, even if their prices are higher by up to 10%. • Foreign companies that supply goods and services shall have local participation of at least 10% initially and increase by 10% per year. • Foreign companies shall provide Local Participation Plan (LPP) to the LCC.	• Local business opportunities remain limited to ancillary services. • Real estate and hospitality industry have been the beneficiary sectors, especially in Western Region. • Bank branches have opened up in Western Region to "follow the money," however financing of SMEs has been limited. • Most capital equipment and plants are imported. • Local companies not yet competitive, lack industry certification, face high cost of doing business (and high interest rates) hurting competitiveness in contract bidding. • IOC's importation of food signifies failure of public policy on whether Ghana has developed the strategy and building the capacity to take advantage of low-tech industry needs.
Employment and Training of Ghanaians	• Oil companies shall as far as possible employ Ghanaians with the requisite expertise or qualifications at all levels. • Ghanaians shall form 50% of	• While it is too early to judge policy effectiveness, there have been no follow-ups on training. Ghana should start measuring results with follow-ups on students trained and where they are going for jobs. What percentage of

Area of Local Content and Value Addition	Requirement	Responses and Perceptions
	management staff initially and increase to 80% after 5 years. Ghanaians shall form 30% of technical staff initially, increase to 85% after 5 years and 90% after 10 years. Ghanaians shall form 100% of other staff. • Oil companies shall provide Annual Recruitment and Training Programme (ARTP) to the Local Content Committee (LCC).	trained manpower goes directly into the oil and gas sector and what percentage go into other areas of the economy.
Local Capability Development	• Government and petroleum companies shall support local training and technical institutions to develop capacity of international standards to train Ghanaians.	• Satisfactory even if less focused. • Among the oil and gas companies, there appears to be very limited, if any, coordinated approach to capacity building. • GNPC has established a fund for capacity development through scholarships.
Technology Transfer	• Oil companies shall prepare and implement plans for the transfer of technology,	• Too early to tell. Industry is young but there is noted skills training at Takoradi Polytechnic and at Kwame Nkrumah University of Science and Technology.

Employment

35. Data on employment is limited, in part because the oil companies have not been collating data in ways that are easily interpreted. Some data went as far back as a decade ago for jobs handed out to Ghanaians, and there were also instances of double counting, making the data less reliable. A provisional outturn of employment data compiled by the Petroleum Commission is reported in Box 4 and accompanying chart.

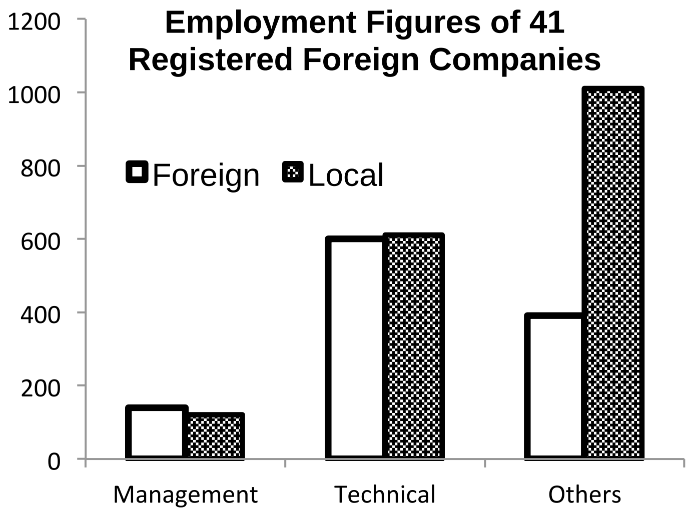
Box 4

Total number of people employed in the upstream sector is estimated at 6,929.
- o Ghanaian employees are 5,589, or 80%.
- o Expatriates account for 1,340, or 20%.

IOCs have employed about 3,616.
- o 1,301 are expatriates, or 36%.
- o 2,315 are Ghanaians, or 64%.

Indigenous Ghanaian registered companies have employed 1,973.
Indirect & secondary employment is about six times the direct employment

Source: Petroleum Commission



Procurement

Box 5: Some Procurement Data
- Over 150 local Ghanaian companies operating in the upstream sector
- Total contracts awarded to local companies total over $600 million since 2009
- 2 major fabrication companies
- 2 piping & casing companies

Source: Petroleum Commission

36. On procurement, one industry observer remarked that any extensive discussion on local procurement may be premature. There is some data on procurement of goods and services from Ghanaians, but that is for the period 2008–2012, before the local content law was passed, making the assessment of progress in procurement difficult. Recent data and observations are summarized in Boxes 5 and Annex Box 7 for suppliers' perception.

5d. Discussion

Having discussed the challenges and the prospects for the mining earlier in Section 4(d), we turn now to challenges and the prospects for oil and gas.

(a) Legislation, Administrative Measures, and Compliance

37. With oil and gas, legislative delays did raise major concerns for industry observers and created a perception of weakness in accelerating government actions. Many point to the fact that employment and supply of goods and services in the industry are all contractual, and if foreign firms had already been contracted as employees and as suppliers of goods and services, it will be nearly impossible to fully implement the law as intended, even if companies are given transitional provisions. Consequently, in the end, and as experience in Trinidad and Tobago has shown, it may be not so much compliance with legislation as working closely with industry to secure opportunities for local actors, to promote skill development, and to encourage industry to catalyze growth in the types of goods and services that are developed in Ghana. All of these make expectations about Ghana's infrastructure and government–industry collaboration much higher.

38. Between government and industry, there is the question of how much to legislate in skills development and engagement. What subset of the local requirements is amenable to administrative measures or should be part of the country's industrial policy? Ghana's approach in pursuing local content leans more towards legislation than in Nigeria (Box 6)

Box 6: Nigeria Local Content in Oil and Gas

Nigeria's local content policy dates back to the 1970s. The Petroleum Act of 1969 sought to protect indigenous firms. The founding of the Nigerian National Oil Corporation in 1971 aimed to raise local participation upstream. The Nigerian Content Policy of 2005 issued directives on localization of supply services, awards of low-tech supply of goods and services, and support for domestic procurement. The new Nigerian Content Policy of 2010 sought to promote local value addition and improve linkages with other sectors of the economy.

Source: Making the Most of African Commodities, 2013

39. Nigeria's local content policy, according to the UNECA 2013 report, has had mixed success despite the modest directives to set a local content target of 49 percent by 2009 and 70 percent by 2010. Estimates of local content in Nigeria's oil and gas industry have risen in the past decade, but not nearly as much as wished for. According to UNCTAD, local content rose from 3 to 5 percent in the 1970s to 20 percent in 2004. Local content reached only 39 percent in 2009. Nigeria's level of local sourcing is reportedly much lower than countries such as Brazil, Malaysia, Venezuela, and

Norway, all of which achieve local content levels of between 45 and 75 percent.[15] Nigerian local content has suffered from poor monitoring and supervision, lack of comprehensive legislation, low funding, and ineffective implementation policy.[16] The progress or lack thereof of Nigeria's local content policy raises questions about the depth of local content provisions. High levels of local sourcing need not translate into desired backward linkage effects. Are local sources merely a front for the importation of goods and services, or local in the sense of depth to backward linkages by way of value addition?

(b) Capacity of the Petroleum Commission (PC) and the Behavior of State Actors

40. There are concerns about the capacity of the PC and other state institutions to monitor and evaluate the progress in the implementation of LCVA requirements in employment, procurement, manpower developments, and technology transfer. While the Minerals Commission appears well established because of its long history, the same cannot be said of the Petroleum Commission. It has taken time to set up the Commission. It is taking even more time to ensure its adequate funding and to establish its organizational structures, including the Local Content Committee, to carry out its mandate.

41. Moreover, the credibility of state institutions charged with assisting SMEs in participating in the sector rides on transparency and fairness. On this score, several supply companies and start-ups did not have favourable impressions of either industry practices or the behavior of state actors, including the Enterprise Development Center. Transparency and openness in the operations of state institutions intended to support SMEs are necessary to guarantee trust and safeguard against the perception of bias.

(c) Procurement and Competitiveness of Local Businesses

42. Noted barriers to maximizing the benefits of local content include: an uncompetitive local private sector; weak domestic entrepreneurial and problem-solving skills; poor manufacturing and business infrastructure to enhance quality and competitiveness to meet international standards; and lack of local financing to support local participation and entrepreneurship at all levels of the value chain. "While Ghana may be doing well in employment, it is not doing well in contracts. Ghanaians may have about 80 percent of supplier contracts, but only 10 percent of the value of contracts," one industry observer remarked.

[15] Morris, Kaplinsky, and Kaplan, 2012.
[16] "Making the Most of Africa's Commodities," UNECA, 2013.

43. Expanding the local private sector's capacity to deliver goods and services competitively to the sector will not only take time, but may require the cooperation of the industry. Perhaps the approach in the mining sector, with the Minerals Commission working hand-in-hand with the Chamber of Mines on behalf of the mining companies, taking step-by-step measures to secure a procurement list, is instructive and should be considered in the case of the oil and gas sector, recognizing that industry-specific context matters.

44. Resource companies generally are committed to high standards of quality and safety, cost efficiency, and competitiveness. Perhaps their cooperation should be negotiated to determine how quickly certain compliance requirements should come into play. This raises again the question of whether local content measures should only legislate some local minimums in employment and procurement and then work cooperatively with industry to expand the breadth and, especially, the depth of those requirements. Finally, support for SMEs should benefit from the budget allocation of petroleum revenues. In Brazil, Petrobras has set up a fund to stimulate SMEs. What such a fund requires is transparency and openness in the administration to safeguard perception of bias.

(d) Manpower Development (Local Capacity Building and Employment Training) and Public Policy

45. Ghana has put in place a comprehensive local content plan. But how strategic has Ghana been, both in the capacity building of small and medium enterprises and in manpower training? The ground-zero discussion presumably should be about what there is in oil and gas that Ghanaians have the capacity to do readily, or the readiness to carry out some of the rudimentary or low-technology industry tasks, such as transportation logistics, warehousing, equipment repair shops, catering, operations and maintenance services, and offshore installation services. Norway's industrial policy and manpower development focused on going upstream and the needed capacity building in drilling and drilling support services and design engineering. Nigeria set its eye on low-technology midstream and downstream services. Identification of priority interest is needed, and so is public information on the linkages and value-addition prospects.

46. The observation that IOCs import food is an indication of the failure of public policy in identifying industry needs and building the capacity for the local content requirements in those "low-hanging" priority areas. The Ministry of Agriculture has not shown the slightest tendency to engage in how agriculture could benefit from the demands of the oil sector. The tendency of IOCs to also import labor from Malaysia to deal, for example, with waste management, one industry expert observed, is another example of Ghana's lack of focus in training that is relevant to the specifics of the industry and services that can readily be performed with limited training. And there is no publicly known strategy in place about what Ghana wants to achieve in the knowledge sphere in employment and skills training. There is the question of whether Ghana is on the right track with its manpower training in only certain areas with low job creation potential, to the neglect of other industry needs.

(e) Ownership, Fronting, and Local Participation

47. An important requirement of the local content policy is that foreign companies that supply goods and services shall have local equity of at least 10 percent initially and increase by 10 percent per year, and at least 5 percent equity for petroleum licenses, permits, and contract operators. The question remains whether the initial equity requirements for joint ventures is not too high for a capital-intensive industry and whether that alone is not an incentive for fronting. A sham local participation or ownership occurs when a foreign company simply makes a local company a proxy partner, with zero equity ownership in the real assets of the company, in exchange for some form of payment. Fronting arrangements are counterproductive to what joint venture requirements are intended to achieve, most notably technology transfer.

6. Conclusion

48. Using minerals, oil, and gas as a catalyst for broad-based growth and development requires more than attracting investment to extract the resource.. It also requires developing local linkages (backward, forward, and lateral) where there are none, and strengthening them, where they exist, with the non-extractive sectors of the economy. For both mining and oil and gas, we have seen that Ghana's desire to formally implement LCVA requirements is relatively new, an evolving strategy, and therefore it may be too early to determine the policy's effectiveness. But a successful LCVA is a winning formula for all: industry for its contribution to the host economy, local businesses for the strengthened linkages and expanded business opportunities, and government for job creation, economic diversification and expanded tax base.

49. In the mining sector, LCVA issues reside perhaps more in policy failure than in the lack of opportunities. The absence of explicit strategic policy to leverage mining activities to advance economic development has not helped. And aspirational signals have been weak. Other key constraints are the lack of competitiveness, low quality standards of local suppliers, weak local entrepreneurial capabilities, poor infrastructure (roads, rail lines and power), and poor access to finance.

50. In the oil and gas sector, the LCVA constraints are similar to those in the mining sector and even more. An important challenge is how to implement LCVA requirements and achieve the quantitative targets. Building the capacity of the Petroleum Commission to monitor and supervise the local content policy is essential. Funding for the Commission is an important aspect of its capacity building. Other challenges reside in the cooperation between government, industry, and local businesses, in the general capabilities of the local businesses in a capital-intensive and high quality standards industry, in coordination of manpower training, and in how to minimize fronting to genuinely promote local entrepreneurship and participation in the industry. The requirement that Ghanaian ownership must grow progressively is constrained by the high cost of capital because Ghanaians have to mobilize additional financing each year

Annex 1: Ghanaian feasible products for future near-term backward linkages

1	Activated carbon	15	Ammonium sulphate
2	Yelomine pipe	16	Conveyor rollers, Idlers and pulleys
3	Rock bolt and split sets	17	Steel products including fabrication
4	Caustic soda	18	Tyre re-treading
5	Explosives manufacturing, ammonium nitrate	19	Heavy duty electric cables
6	Ventilation ducting	20	Chain link fencing, wire netting, barbed wire, welded mesh, expanded mesh, concrete mesh, razor wire,, panel mesh
7	Mill Liners	21	Motor rewinding
8	Grinding Media	22	Plastic sample bags
9	General/Specialty lubricants	23	Calico bags
10	HDPE and PVC pipes	24	Bullion boxes
11	Overalls and work clothes	25	Reversed Engineering Specialty products
12	Cement and cement products	26	Cupels & Crucibles
13	Quicklime lime	27	Wood products
14	Hydrated lime	28	Metal or PVC Core trays

Source: information provide by Chamber of Mines and reproduced in Morris et. al 2012.

Box 7: Local Content Implementation: Views from Suppliers

Some Positives:

- Logistics, housing, construction, and hospitality services (hotel and catering operations) have improved markedly in the oil-producing Western Region.
- There are noticeable improvements in the capacity and ability of some suppliers to provide goods and services, thereby winning more contracts from the oil companies.
- The commitment of the Jubilee Partners to high standards has encouraged local companies to sharpen and improve their skills in meeting procurement standards.
- Some Ghanaian SMEs have been able to gain welding expertise key in the operations of the sector, thus making it attractive for the oil companies to seek the services of local welders rather than having to import foreign expertise.

Some Challenges:

- Overall local industries and companies have not been competitive in winning bids and contracts because of lack of certification and capacity towards the needs of the oil companies.
- There is weak linkage to other sectors of the economy, especially in agriculture.
- Operating in the sector is extremely capital-intensive, and local contractors find it difficult to mobilize the necessary resources for joint venture partnerships with foreign firms. The IOCs are also reluctant to partner with the Ghanaian firms since the local content law prescribes progressively greater equity participation for Ghanaian firms.

Source: Fieldwork carried out by ACET staff in 2014

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