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Local content law and practice

The case of the oil and gas industry in Ghana

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Abstract: Local content and local participation policy and legislation have come to stay in Ghana's oil and gas industry. The policy and legislation have been described largely as adequate, promising, and necessary to promote local content and local participation in the oil and gas industry. Implementation of the policy and legislation has, however, produced mixed results, according to industry stakeholders and researchers. Evidence on the ground suggests some level of compliance by international oil companies to implement the policy and legislation on local content. Some Ghanaian companies have been awarded contracts to provide essential services and goods to these companies during exploration and production. Several factors, however, militate against effective implementation of the policy and legislation. Notable among these are the low capacity of local firms, discrimination against local firms by international oil companies through vertical integration, and the weak regulatory capacity of the Petroleum Commission to enforce local content implementation. Vigorous capacity building of local firms, affirmative actions for local firms and employees, and legislative reviews are recommended to enhance the implementation of local content and local participation in Ghana's oil and gas industry.

Keywords: local content, law, practice, oil and gas, Ghana
JEL classification: L71, L52, L78, Q34

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1 Introduction

Oil and gas were discovered in Ghana in 2007 and the country began to extract these resources in 2010. With subsequent discoveries the country has come to realize its long-time hope of boosting its socio-economic development with proceeds from oil and gas. Paradoxically, however, the oil sector globally has not helped to boost local economic development in producing countries, especially developing countries. This paradox, which has been christened the 'paradox of plenty' or 'resource curse', has become a catchphrase in international discussions on extractivism and development.

Ever since 2007, Ghana's government has been developing strategies to both take advantage of the oil find and attempt to escape the resource curse. One such strategy was the policy and legislative development on local content and local participation in all facets of the oil and gas industry. To this effect, in 2010, a coherent policy was developed to regulate the nascent oil and gas industry. This aimed to ensure that Ghanaian citizens participated in the ownership of businesses in the oil and gas industry by giving priority in employment, in the award of oil blocks, oil field licences, and oil extraction licences, and in all oil and gas projects for which contracts were awarded. To ensure the effective implementation of the policy, legislation (LI 2204 [Petroleum (Local Content and Local Participation in Petroleum Activities) Regulations]) was passed in 2013 by the Parliament of Ghana. In both the legislation and policy, local content refers to the use of Ghanaian local expertise, goods and services, people, businesses, and financing in oil and gas activities. The regulation and policy not only aimed to maximize value-addition and job-creation in the petroleum sector through the use of local content; they also acted as a mechanism for the coordination, transparent monitoring, and governance of Ghanaian content. While local content policies (LCPs) and legislation have the potential to stimulate broad-based economic development, which is necessary to alleviate poverty, achieve prosperity, and ensure sustainable economic and social outcomes in Ghana's oil and gas sector, their use has often achieved mixed results in many extractive developing countries.

It has now been over four years since Ghana passed the LI 2204. Its impacts are therefore worth examining to understand how the law has aided the utilization of Ghanaian goods and services, skills development, and the training and employment of Ghanaians. This paper therefore seeks to review local content policy and legislation in Ghana and to assess their effectiveness since oil and gas production began in 2010. The paper attempts to identify not only direct benefits but also indirect and induced benefits of local content through forward and backward linkages between the oil and gas industry and other sectors of the economy. The paper also highlights some challenges hindering the effective implementation of the law.

The paper relied largely on a qualitative desk review of existing literature, research papers, and institutional reports on local content law and practice in Ghana's oil and gas sector. Current local content policy and legislation were reviewed in terms of their suitability for achieving effective local participation in the oil and gas industry. Secondary information was sourced from company reports, legal and policy documents, academic publications, articles, and sector reports from civil society organizations (CSOs), government ministries, international oil companies (IOCs), etc. First-hand information was collected from limited field work conducted for the study. In-depth interviews were conducted with key informants in the oil and gas industry, including the local content secretariat of the Ministry of Energy and the Petroleum Commission, to augment the information contained in their institutional reports. Some former staff of the Enterprise Development Centre (EDC) and some international oil companies such as Tullow Ghana and Kosmos Energy were interviewed to obtain additional information.

2 Contextualizing natural resource extraction and national development

Most theoretical arguments, particularly in the 1960s and early 1980s, were that the presence of natural resources in any nation would lead to rapid development (Karl 2007; Rostow 1990). This led to a mad rush to discover and exploit natural resources, particularly those with high economic value at the time. Resources such as gold, diamonds, oil, and timber became the target of many developing countries (Rostow 1990). The argument linking natural resources to accelerated development was given its impetus by the development paradigm of developed countries such as Australia, the USA, and the UK. Its proponents, chiefly Rostow (1990), argued that natural resources extraction was positively correlated with industrial development, a prerequisite for infrastructural and economic development. Drake (1980), cited in Rosser (2006), argued that the presence of natural resources would open domestic markets and ensure investment capital needed for industrial development. In his five-stage model for development, Rostow saw the presence of natural resources as a pre-condition for take-off.

In the 1980s, the extractive-led development argument continued, with the World Bank spearheading the agenda. From a liberal economic perspective, proponents of the extractive-led development paradigm argued that countries endowed with extractive resources such as oil and gas and gold would witness accelerated growth and development (Africa Development Bank 2009; Henstridge et al. 2012; World Bank 2004). Their view was supported by some studies, which found a positive correlation between growth in the oil and gas sector and GDP growth in countries in Africa, including Algeria, Angola, Nigeria, and Libya (Africa Development Bank 2009; King 2010; KPMG 2013).

Despite the developmental potential of natural resources for national growth, arguments emerged in the 1980s to question the contributions of the sector to the development of several developing countries. Auty (1993) argued that several developing countries lacked the capacity to manage the revenues from extractive resources, leading to corruption and mismanagement—a culture of rent seeking common in developing countries. In Sierra Leone, Maconachie and Binns (2007) noted that due to poor management the country had remained one of the poorest African countries despite mining diamonds for several decades. Sachs and Warner (1995), using the economic growth rates of 97 countries between 1970 and 1989, delved deeper in an attempt to understand how the presence of natural resources influenced their development. They found that countries with copious natural resources tend to grow less rapidly than those with few natural resources (Sachs and Warner 1995).

The fundamental assumption by liberal economists is that growth in the extractive sector will induce economic growth through increased government revenues, used to finance poverty alleviation programmes and facilitate the improvement of infrastructure (Campbell 2001; Henstridge et al. 2012; Karl 2007). Liberal economists believe that the indigenous population in extractive areas will have a comparative advantage to secure jobs and will receive trickle-down benefits because they live close to the resource extraction point. Moreover, sub-national governments are expected to witness an increase in revenues for sub-national development (O'Faircheallaigh 2013). What appears not conclusive in the liberal economic view is how these benefits will trickle down and who specifically will benefit at sub-national levels. A segment of the literature has concluded that the extractive sector is a curse rather than a blessing to developing countries across the world, and particularly those in Africa (Andersen and Aslaksen 2008; Auty 1993; Baland and Francois 2000; Bjorvatn et al. 2012; Brückner 2010; Brunnschweiler and Bulte 2008; Coxhead 2007; James and Aadland 2011; James and James 2011; Karl 1997, 2007; Larsen 2005; Mainguy 2011; Neumayer 2004; Ogunleye 2008; Stevens and Dietsche 2008).

3 The oil and gas sector, local content, and local participation

From the liberal economic perspective, the extractive sector is expected to create employment for the local population, especially during the construction of infrastructure (Campbell 2001; Warhurst 2005; World Bank 2004). In 2002, the International Labour Organization (ILO) estimated that the oil industry employed more than 2 million workers in production and refining (World Bank 2004). The ILO further estimated that each job in oil production or refining indirectly generates between one and four jobs in related industries (World Bank 2004). In Ghana, for instance, Tullow Ghana estimated that 180–200 Ghanaians would be directly employed by their company, and another 600–800 by contractors during oil exploration and production (Tullow 2012).

While the oil industry is considered to be providing employment opportunities, some studies have observed that employment in the sector is generally falling in most parts of the world (Azapagic 2004). Other studies have observed that the majority of the jobs are not benefitting the communities in which the oil production is occurring. It is a common trend in the oil industry to fill the majority of extraction-related jobs with foreign workers, who can be exploited and denied legitimate claims to wages, benefits, and compensation (Karl 2007; Smith and Dorward 2014). Azapagic (2004) similarly argues that there is an increasing trend in the industry for companies to contract out or outsource labour. This implies that local people are less likely to benefit from new jobs and business opportunities. A typical example, according to him, is the 'fly-in, fly-out' operations that bring workers from different parts of the world to exploration sites on the pretext of a lack of a locally available skilled workforce.

The high expectation of employment in the oil sector often leads to a massive movement of people, especially the youth, to oil-producing areas. Many of these young people do not get employment and end up engaging in various social vices for their livelihood (Okuthe 2015). In the city of Sekondi-Takoradi, Obeng-Odoom (2014) observed that many of the young women who had migrated to the city since the discovery of oil in 2007 were in commercial sex work. Darkwah (2013) has observed that several young Ghanaians have rushed to acquire skills related to the oil industry and are still waiting to get employment in the sector. She, however, bemoaned that several of these young people are losing hope in the oil sector despite the high expectations they had had on the discovery of oil in 2007.

Due to the challenges in promoting local interests in business and employment in the oil and gas sector, the concept of local content and local participation has now been emphasized in extractive sector policy. Local content refers to jobs or value-added that are created anywhere in the domestic economy as a result of the actions of an oil and gas company. It can also refer more narrowly to jobs that are created in the neighbourhood of the oil production plant. Local content may even refer to the provision, by the oil company, of infrastructure (schools, medical facilities) that is not an input into its own production but intended for the benefit of the local population—either of the nation generally or the neighbourhood of the installations (Tordo et al. 2013).

Increasing local content has therefore become a policy priority in many resource-rich developing countries, among both mature and recent entrants to the industry (Tordo et al. 2013). The purpose of LCPs in the oil and gas sector is generally to encourage the participation and development of national labour, goods and services, technology, and capital. LCPs are viewed from different perspectives. Tordo et al. (2013) have argued that LCPs should be concerned not only with an immediate increase in local content such as employment, but also with actions such as training in appropriate skills that will lead to a longer-term increase in employment and related benefits to local citizens.

4 Policy and legislative development on local content and local participation in Ghana's oil and gas value chain

4.1 Policy development process

In the quest to maximize benefits from oil and gas resources for Ghanaian citizens, the government embarked on policy and legislative development from the moment oil and gas were discovered, in 2007. Taking lessons from the mining and forestry sectors, where fiscal benefits had eluded the citizens of Ghana (Akabzaa, Seyire et al. 2007; J.A. Ayelazuno 2014; Ayine 2001), the state started to marshal policies to avert the paradox of plenty. Subsequently, a coherent policy with the following objectives was developed to regulate the nascent oil and gas industry (Ministry of Energy 2009):

- to maximize the benefits of oil and gas wealth generation on a comprehensive local content platform by maximizing the use of local expertise, goods and services, job creation for people, businesses and financing in all aspects of the oil and gas industry value chain and retention of the benefit within Ghana;
- to develop local capability in all aspects of the oil and gas value chain through education, skills and expertise development, transfer of technology and know-how and an active research and development portfolio;
- to achieve a degree of influence or control over development initiatives for local/domestic stakeholders;
- to achieve at least 90 per cent local content and local participation in all aspects of the oil and gas industry value chain within a decade;
- to increase the capabilities and international competitiveness of domestic businesses and industrial sectors; and
- to create oil and gas and related supportive industries that will sustain economic development.

A review of the 2010 local content policy suggests that the government has shown a commitment to ensuring that Ghanaian citizens participate in the ownership of businesses in the oil and gas industry. The policy specifically mandates that priority should be given to Ghanaians in the award of oil blocks, oil field licences, and oil extraction licences and in all projects for which contracts are awarded. In this regard, the government is committed to building the capacity of local firms to attain international competitiveness and enable them to contribute effectively to the growth of the nascent oil and gas industry.

In terms of goods and services provision, the policy mandates that all operators in the oil and gas industry shall as far as practicable use goods and services produced by or provided in Ghana for their operations in preference to foreign goods and services. It was the hope of the government that after the commencement of operations, the participation of Ghanaians in value-added would be at least 10 per cent initially, with a 10 per cent increase annually in the provision of goods and services.

Regarding the employment of Ghanaians, the policy mandates that all operators in the oil and gas industry should ensure that opportunities are given as far as is possible for the employment of Ghanaians having the requisite expertise or qualifications in the various levels of the operations. The operator should, within 12 months of the grant of a licence (or the effective date of a Petroleum Agreement), submit to the relevant regulatory agency for approval a detailed Annual Recruitment and Training Programme for the recruitment and training of citizens of Ghana in all job classifications and in all aspects of petroleum activities, which may be carried out in or outside the country. The policy mandates the operators to detail in their recruitment plans the following targets of employment of Ghanaians: at least 50 per cent of management staff at the beginning and 80 per cent after five years; at least 30 per cent of technical staff at the beginning and 80 per cent after five years; and 100 per cent of all other staff.

The policy also mandates that all operators should provide for the training of Ghanaians in all aspects and phases of petroleum production through scholarships, industrial training for students, and other financial support for education. To enhance the capacity of Ghanaians, the government intends to support local training and technical institutions to develop the requisite capacity, to international standards, to train Ghanaians to the levels required by the industry in drilling, catering and housekeeping, and other support services. Special attention will be given to ensure the indigenization of oil and gas technologies. The policy also makes provisions to ensure equal opportunities for men and women in the oil and gas industry.

4.2 Legislative development process

Legislation on local content in petroleum activities in Ghana dates back to 1984, when the PNDC Law 84 enacted the Petroleum Exploration and Production Decree, 1984. Section 23 of the Decree provided for the employment of Ghanaians and the preference for Ghanaian goods and services in the exploration and production of petroleum in Ghana. In 2016, the PNDCL 84 was replaced by the Petroleum (Exploration and Production) Act 2016 (Act 919). Act 919 mandates that qualified Ghanaian citizens are to be given the opportunity of employment in all aspects of the petroleum industry. Section 61(1) of Act 919 further provides that Ghanaian firms are to be given preference in the supply chain of materials, equipment, machinery, and consumer goods.

In 2013, the Parliament of Ghana passed the Petroleum (Local Content and Local Participation in Petroleum Activities) Regulations, 2013 (LI 2204). This was aimed at developing local capacities in the petroleum industry's value chain for sustainable economic development (Ministry of Energy 2009). Local content refers to the use of Ghanaian local expertise, goods and services, people, businesses, and financing in oil and gas activities (Ministry of Energy 2009). The LI mandates that every Petroleum Agreement or petroleum licence between Ghana and a foreign company must have at least 5 per cent equity participation of indigenous Ghanaian companies. It is also meant to increase the capability and international competitiveness of domestic businesses and to create petroleum and related support industries to sustain Ghana's economic development. The LI also provides that entities in the petroleum industry must submit plans for their compliance with local content requirements regarding the provision of goods and services. In addition, it requires entities in the petroleum sector to transfer advanced technology and skills related to the petroleum activities and their recruitment and training programmes to the Ghana National Petroleum Corporation (GNPC) or the Petroleum Commission. Representatives of IOCs working in the local oil sector have pledged to cooperate with the state in the implementation of LI 2204 (Tullow 2012).

The government is seeking to rely on the regulation to achieve at least 90 per cent local participation in all aspects of the petroleum value chain by 2020. This expectation is, however, widely considered unrealistic. According to Olsen Arne (2013), no country has ever achieved 90 per cent local content in the history of petroleum production. The highest ever achieved is 74 per cent by Norway in 1994. This therefore raises questions about the workability of the local content legislation and whether any company can abide by the law in Ghana.

5 Implementation of the local content policy and law on oil and gas in Ghana

5.1 Institutional arrangements for local content implementation

To implement the local content law on oil and gas in Ghana, the Petroleum Commission was established in 2011 by the Petroleum Commission Act, 2011 (Act 821). The Commission is mandated to regulate, implement, manage, and coordinate activities in the upstream petroleum sector. The Commission has a designated department responsible for monitoring IOCs in the implementation of the local content law. The Commission is responsible for promoting and monitoring local content policy, advising the Ministry of Energy on petroleum project negotiations, and monitoring and evaluating field appraisals, development, and production activities. To ensure effective monitoring of the implementation of the local content policy and law in Ghana, the Commission has broadly categorized the oil and gas industry as follows:

- International Oil Companies—international companies with petroleum agreements undertaking exploration and production activities;
- International Service Companies—foreign companies providing services to IOCs;
- Local Service Companies—local companies providing services in the oil industry.

The Ministry of Energy is responsible for overseeing and ensuring full implementation of the local content and local participation policy. A Local Content and Local Participation Secretariat has been established, as well as a National Local Content Committee within the Ministry, to oversee the implementation of the policy. An Oil and Gas Business Development and Local Content Fund has been established to support local capability development aspects of the local content framework. The fund will be used primarily for education, training, and research and development in oil and gas. Sources of the fund will include a contribution from licensed operators (at amounts specified in the applicable Petroleum Agreements), oil and gas revenue, levies, grants, and other support from Ghana's Development Partners. The Ministry of Energy will oversee the disbursement of the fund.

CSOs, particularly NGOs and the media, play important roles in supporting good governance in the new oil era in Ghana. CSOs act as pressure groups to force government and IOCs to abide by the local content law and policy. Notable CSOs playing such roles in Ghana include the Africa Centre for Energy Policy (ACEP), the Natural Resource Governance Institute, and the Civil Society Platform on Oil and Gas.

6 Current level of goods and services supplied by Ghanaian companies

In line with the local content policy and legislation, goods and services as shown in Table 1 are earmarked for indigenous Ghanaian companies.

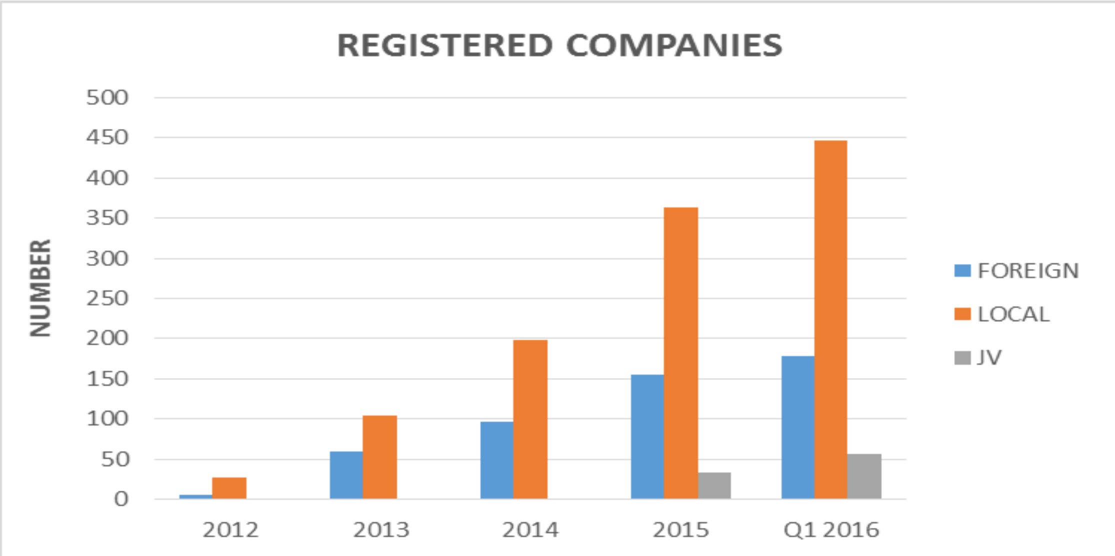
Table 1: Goods and services earmarked for indigenous Ghanaian companies

Supply of petroleum products	Basic fabrication & construction	Supply of drinking & industrial water	Construction & civil works including general cleaning and gardening	Financial, banking & legal services
Manpower services	Vehicle leasing & rentals	Waste management	Supply of low voltage cables, etc.	Scaffolding
Community relations & social investment	Fabric maintenance (painting)	Insurance & reinsurance services	Standard chemicals	

Source: Ministry of Energy (2009).

As at the end of 2016, 776 companies were registered with the Commission to provide either direct or indirect services ranging from catering/hospitality services, logistics supplies, and freight forwarding to fabrication and waste management services. These consisted of 480 local companies (companies with at least 51 per cent Ghanaian equity ownership), 201 foreign companies, and 95 joint venture (JV) companies. Figures from the Petroleum Commission show progressive growth of local firm registration from 2012 (Figure 1).

Figure 1: Progress of local firm registration with Petroleum Commission

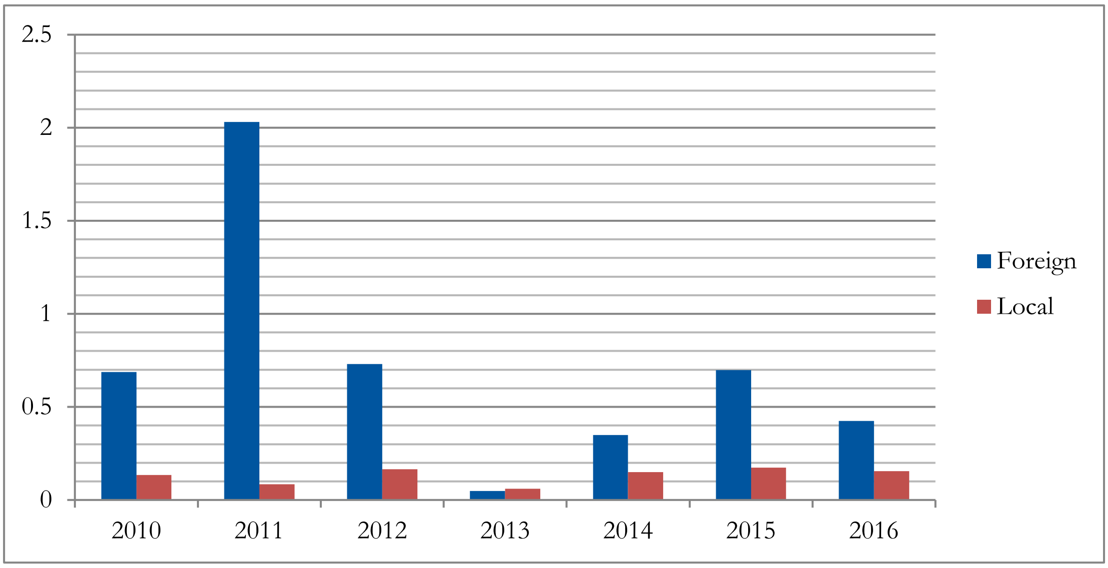


Source: Petroleum Commission (2016), reproduced with permission.

The Africa Centre for Energy Policy (2017) has recorded that in 2016 the Jubilee/TEN Field Partners (Tullow Ghana Limited, Kosmos Energy, Anadarko, GNPC, and Petro SA) awarded contracts worth about US$1.37 billion, out of which indigenous Ghanaian companies were awarded contracts worth US$489 million (35 per cent) and non-indigenous Ghanaian companies US$884 million (65 per cent). The ACEP report further noted that between 2014 and 2016, there was a significant and progressive increase in contracts awarded to indigenous companies: US$152 million in 2014; US$249 million in 2015; and $489 million in 2016. ACEP (2017) also reported that between 2014 and 2016 Eni Ghana Exploration and Production Limited spent a total of US$6.3 billion in developing the Offshore Cape Three Points (OCTP) Field. Contracts worth about US$1.76 billion (28 per cent) during this development process were awarded to indigenous Ghanaian companies, while contracts worth US$4.54 billion (72 per cent) were awarded to international companies. In total, about 250 indigenous Ghanaian companies benefitted from these contracts (companies with at least 51 per cent Ghanaian equity ownership). The Petroleum

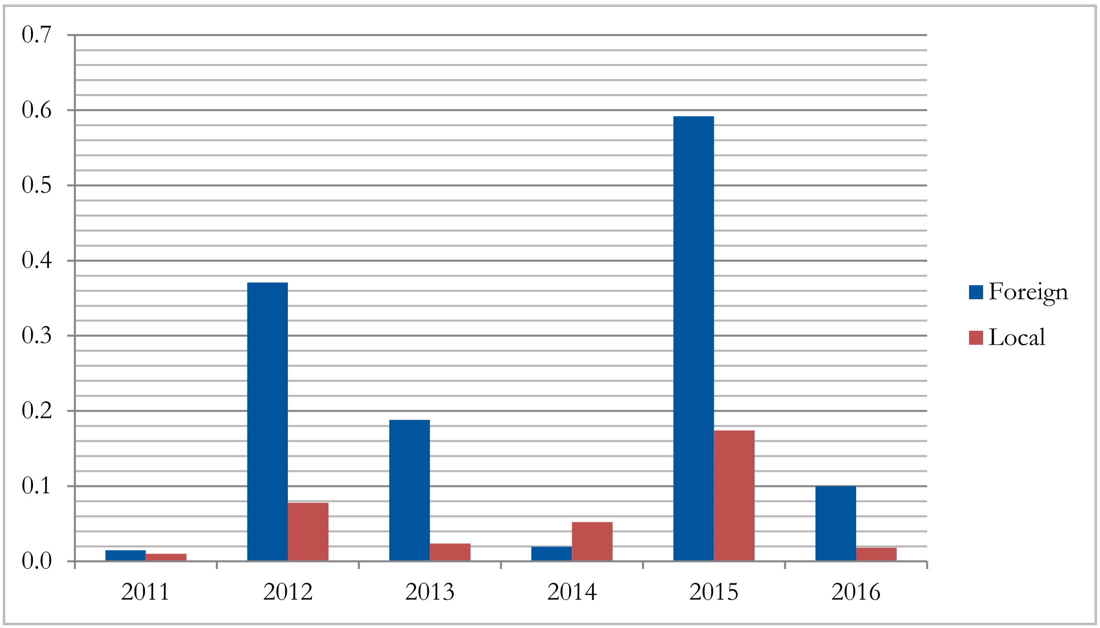
Commission in 2016 also reported specifically the value of services provided by local and international firms to two IOCs (Tullow and ENI). Details are given in Figures 2 and 3.

Figure 2: Foreign and local firms' supply of goods and services to Tullow



Source: Author's computation from Petroleum Commission (2016) data.

Figure 3: Foreign and local firms' supply of goods and services to ENI



Source: Author's computation from Petroleum Commission (2016) data.

In the area of fabrication, some indigenous Ghanaian companies are making impressive strides. For example, Belmet7 and Seaweld Engineering Services Limited participated in the fabrication of the suction piles and Module Stools, respectively, for the OCTP FPSO. Specifically, Belmet7 invested about US$8 million in their fabrication yard at the Takoradi Port in 2013 and have since produced 16 suction piles for the OCTP field and a gas export manifold for the TEN Field. According to ACEP, this development is the first of its kind in West Africa. Other companies, including JVC, Orsam, Harlequin, and Group Five, have fabricated jumpers, sleepers, mud mats, riser bases, and manifolds in Ghana. In all, over 15,000 tonnes of steel have been fabricated in Ghana for the oil and gas industry.

Installation of subsea infrastructure is another area of interest in local content development in Ghana. An indigenous Ghanaian company (Sri Emas Limited) won over US$300 million worth of contracts for the transport and installation of subsea umbilicals, risers, and flowlines (SURF) as well as the transport and installation of the gas export sealine for the OCTP project. The project management and major procurement is led and carried out in-country by Ghanaians, and some other aspects of the scope of work are subcontracted to other Ghanaian companies (Africa Centre for Energy Policy 2017).

As shown in Figures 2, 3, and 4, although the picture appears promising, it is below the country's expectation in its local content policy objective of achieving 50 per cent of local participation in the supply chain within a decade. Several factors have contributed to this. The Petroleum Commission has noted that few indigenous companies participate in the middle and higher supply chain activities. Most indigenous companies are concentrated at the lower levels of the supply chain, supplying relatively low-value goods and services.

7 Recruitment, training, and promotion of Ghanaian nationals for jobs in the oil sector

Section 5.4 of the 2010 Local Content and Local Participation policy framework, which focuses on the employment of Ghanaians in the oil industry, stipulates the following milestones:

1. at least fifty per cent (50%) of the management staff of IOCs are Ghanaians from the start of petroleum activities [and]
2. at least eighty per cent (80%) within five (5) years after the start of the petroleum activities,
3. at least thirty per cent (30%) of the technical staff are Ghanaians from the start of petroleum activities of the licensee and the percentage shall increase to at least eighty per cent (80%) within five (5) years after the start of petroleum activities and ninety per cent (90%) within ten (10) years; and other staff are one hundred per cent (100%) Ghanaians.

As at the end of 2015, the total number of people employed in the upstream sector was estimated at 6,940. Of these, 5,590 (81 per cent) were Ghanaians and 1,350 (19 per cent) expatriates (Buah 2016). In comparing the employment statistics with the local content targets, it is observed that the targets for management staff and other staff have been met. However, there is a huge gap in the area of technical staff, especially engineers and technicians (Ahwireng 2016). The Petroleum Commission has begun taking steps to bridge this gap. For example, the Commission negotiated for 20 per cent of the engineering design of SURF for the TEN project to be executed by Ghanaians through GNPC-Technip Limited (a JV company).

It is also worth noting that some of the IOCs are prioritizing Ghanaians in the execution of their projects. For instance, 25 per cent of engineering man hours for the construction of ENI's ongoing gas processing plant at Sanzule is being executed by Ghanaians. Also, both Kosmos Energy and Tullow Oil now have Ghanaians managing their Ghana offices in fulfilment of their local content commitments (Africa Centre for Energy Policy 2017).

It has been observed that there exist huge salary disparities between Ghanaian employees and foreign employees of IOCs. These disparities have recently led to protests among local staff of IOCs. The Petroleum Commission in its attempt to understand the reasons behind the disparities has come to the realization that most of the Ghanaian staff lack the requisite technical skills needed for the oil and gas industry. The Commission concluded that, although Ghanaians possessed academic qualifications, they lacked practical skills and competencies to fill engineering and technical areas of the oil and gas industry (Africa Centre for Energy Policy 2017).

8 'Local local' content

'Local local' content is a term used to describe how local content initiatives are used to address specific needs at project-affected communities. Since the oil discovery and subsequent development of local content policy and law, several stakeholders, such as community leaders and civil society, have called for the oil industry to provide benefits to local communities likely to be affected by oil production and related activities. Although these calls have not been successful in several extractive countries, advocacy and agitation for this framework of local content have continued unabated.

The IOCs have responded in various ways to the 'local local' content debate in Ghana. For instance, in the contract for site preparation for the OCTP onshore gas receiving facility in Sanzule, all the 140 unskilled and semi-skilled workers were employed from the 18 project-affected communities; catering, driving, and hospitality services were all provided by companies from the communities; and Sri Emas (an indigenous Ghanaian company) was awarded a contract worth US$300,000 to construct a road bridge connecting the farming communities of Adubrim to the cocoa-growing areas of Ellembelle in the Western Region (Africa Centre for Energy Policy 2017). According to the Community Liaison Officer of Kosmos Energy, the company has prioritized 'local local' companies in communities in the Western Region for the award of unrestricted contracts. For instance, it has prioritized local restaurants to supply food during workshops and meetings.

Although 'local local' content is being promoted in the extractive sector as a way of meeting local communities' interests, it is not prioritized in Ghana's local content and local participation policy and legislation, which has no specific references to 'local local' content. This has raised concerns among local actors in coastal communities in the Western Region, who have questioned their benefits from the oil find since they are likely to suffer from any negative consequences of the oil industry. The demand for local benefits of the oil industry by coastal communities in the Western Region has received much attention in the literature (Ackah-Baidoo 2013; J. Ayelazuno 2014; Mohammed et al. 2014). The question, however, is how to ensure that 'local local' firms meet the standards of the IOCs. This may require a policy focus and commitment of the IOCs and the Petroleum Commission to support 'local local' firms in their efforts to contribute to the supply chain in the oil industry.

9 Challenges of local content implementation in Ghana's oil and gas sector

9.1 Local business capacities in the oil and gas industry

There is a constant assertion from IOCs that indigenous companies have challenges in meeting international standards in the industry. A body of literature largely agrees that indigenous companies are poorly structured and have limited capacity to do business in the oil and gas industry in Ghana (Africa Centre for Energy Policy 2017; Asafu-Adjaye 2010; Asamoah 2012; Asante and Owusu 2014; Boyefio and Ochai 2014). The literature asserts that IOCs find it difficult to identify suitable Ghanaian suppliers because of limited information or records on them. Local SMEs are also challenged by limited information on supplying services to IOCs, which denies them opportunities to benefit from the supply chain of the oil industry.

Another fundamental challenge of local SMSs is that they lack skilled personnel to provide services that meet the standards of IOCs. Local SMEs are noted for not prioritizing skills training of their staff and do not invest enough to acquire the skilful manpower needed to deliver quality services on time. They have limited financial capacity to deliver on large contracts, which is largely due to the fact that financial institutions in Ghana do not trust their creditworthiness. A common feature of local SMEs, as noted in the literature, is that they are mostly not certified to international standards such as the International Organization for Standardization (ISO). International certification is a prerequisite for doing business with IOCs. Therefore, its absence is a disincentive for IOCs to engage with local SMEs. These standards apply to the environment, health, and safety (EHS), insurance requirements, and business ethics, including anti-bribery policies.

The Petroleum Commission has noted these challenges and is of the view that some indigenous companies have the capacity to supply some goods and services along the value chain of the petroleum industry. The Commission has begun several capacity building efforts for indigenous companies to expedite the development of skills and know-how through the formation of joint ventures. The Commission also encourages partnerships and the pooling of resources among indigenous companies in order to deliver goods and services to the appropriate standards. The Commission is currently also developing an electronic portal to make information on upstream companies available to indigenous companies to enable them take advantage of upcoming opportunities. Some of these initiatives will be discussed in ensuing sections.

9.2 Discrimination against indigenous companies

Arguably, the dominance of international suppliers in the supply chain of the oil industry in Ghana gives the impression that the capacity of local SMEs is deliberately underutilized. As noted by Boyefio and Ochai (2014), the Ghanaian oil industry is currently dominated by foreign manufacturers or suppliers of goods and services that could ordinarily be made or supplied by local SMEs or firms. They noted that, although most IOCs profess support for local content, the reality is that they prefer to deal with their global suppliers for a number of reasons and are reluctant to break such supplier relationships. There is a general perception among indigenous SMEs that it is difficult to identify the entry point(s) to the oil and gas value chain—where to begin and who to deal with at the IOCs. There is also a general perception that IOCs often deliberately refuse to patronize indigenous SMEs, which they believe do not have the requisite capacity to meet their standards; instead, they would rather contract similar services from Côte D'Ivoire. It is therefore important for further studies to understand the mode of operations of SMEs in Côte D'Ivoire which put them at an advantage over those in Ghana.

9.3 Regulatory institutional challenges

Despite the tremendous efforts by the Petroleum Commission to ensure effective implementation of the local content law, several concerns have been raised about the capacity of the Commission. In order to ensure strict compliance by IOCs, there is a need to establish measurable and monitorable indicators at the various IOCs. This calls for technical ability within the Petroleum Commission. The technical competence of the Commission in this regard is, however, questionable, since the Commission itself is relatively new and, more generally, the exposure of Ghanaian technical staff to the oil and gas industry is limited.

In addition to the technical challenges, the Petroleum Commission, since its establishment, has operated as a pure public sector institution in Ghana. One current characteristic of Ghana's public sector is the high influence of partisan politics. The appointment of management and technical staff to the Commission is partisan and tenure in office depends on the tenure of the political party in power. For example, since the change of government in 2017, several management and technical staff of the Commission have been replaced. Institutional memory and learning therefore become questionable, and IOCs may take advantage of the inconsistency in monitoring resulting from leadership change to ill report progress on the implementation of local content policy. Interviews with the Commission's senior management suggest that some IOCs have provided distorted and inconsistent reports on local content implementation. The Commission, however, finds it difficult to verify the information due to a lack of institutional records coupled with an absence of designated officers to crosscheck for confirmation.

10 Options for increasing local participation in the oil and gas industry in Ghana

In the quest to enhance the capacity of Ghanaian firms to take advantage of local content policy and legislation, several initiatives have been instituted in the context of public–private partnership (PPP) arrangements. In 2015 the Petroleum Commission, upon recognition that Ghanaians possessed academic qualifications but lacked practical skills and competencies to fill engineering and technical roles in the industry, began to conduct needs assessments. The Ghana Upstream Internship Program (GUSIP) was developed to recruit young school leavers as interns in selected oil companies to gain industry experience. Petroleum Commission records indicate that the first batch of interns recruited by Tullow Ghana Limited in 2016 has completed a one-year training programme (Africa Centre for Energy Policy 2017). The Commission also encourages upstream companies as part of local content development to organize supplier development programmes for their subcontractors.

With regard to financial assistance, Act 919 mandates the Commission to establish a Local Content Fund to provide financial resources for citizens and indigenous Ghanaian companies engaged in petroleum activities. The Commission has developed modalities for the establishment of this fund, which when completed will increase access to finance for indigenous companies. The Commission has also initiated discussions with the financial sector to ease the credit constraints and address the bane of prohibitive interest rates and other credit challenges for upstream companies.

One major government-initiated PPP promoting local content in the oil and gas sector was the Enterprise Development Centre (EDC), which started in 2013 and was spearheaded by the (then) Ministry of Energy and Petroleum and the Ministry of Trade and Industry. The five-year initiative was jointly sponsored by the Jubilee Partners (Tullow Oil, Ghana, Kosmos Ghana, Anadarko, Petro SA, and the GNPC) to provide capacity building support to SMEs in Ghana interested in benefitting from the oil and gas supply chain. The EDC provided services such as business training, capacity building programmes, advisory services, access to markets, and information, and also acted as a focal point for coordination between SMEs and the oil and gas companies and their contractors. The EDC had developed a comprehensive database of local SMEs and had trained and integrated about 400 SMEs into the supply chain of the oil industry. The activities of the EDC have, however, been suspended since August 2016 due to lack of funds. Records from the EDC office indicate that only about 22 of the 400 SMEs were ever awarded contracts by IOCs after receiving training. As discussed earlier, this situation is largely attributable to the discriminatory tendency of the IOCs against local SMEs and the poor capacity of those SMEs. Although the initiative had funding challenges and could not achieve as much as expected, the government and the IOCs need to revisit the concept with modifications and promote such support services to ensure the capacity development of local firms so that they may effectively participate in the oil industry in Ghana.

Another initiative is Invest in Africa (IIA), a cross-sector group of companies (local and international) working together to support local enterprises in Ghana. IIA established the African Partner Pool in October 2014 as an online business networking platform. This initiative connects credible local businesses to investors and provides capacity building programmes for SMEs. A main activity of IIA is the Business Linkage Programme, which was launched in July 2015. The programme provides two years of expert business support to local businesses to help them win clients, access finance, meet international standards, and export to new markets. About 31 SMEs have benefited from this initiative so far.

The Supply Chain Development (SCD) programme is an initiative supported by the United States Agency for International Development (USAID) that seeks to improve the competitiveness of local SMEs operating in the oil and gas sector. The programme develops capacities of SMEs in the areas of EHS, procurement best practices, information technology, and quality management. So far, 394 individuals and 206 SMEs have been trained in SCD, and 52 training workshops have been run. Beneficiaries of the SCD programme have won 56 contracts worth over US$16 million with oil and gas companies.

The Association of Ghana Industries (AGI) is another platform that helps SMEs take advantage of opportunities in the oil and gas sector. The AGI creates opportunities for businesses to interact and exchange business ideas, lower the cost of doing business in Ghana, and improve the local business climate. The AGI organizes support services for its members in variety of areas, including business plan preparation and business advocacy advice. The AGI has organized several exhibitions and conferences aimed at helping SMEs understand the local content issues in the oil and gas sector and to participate in the industry.

Ghana Supply Chain (Pyxera), a US-funded institution, also provides capacity building programmes for SMEs in the industry. Pyxera has provided various technical training programmes for SMEs in the industry.

11 Conclusion and policy recommendations

While Ghana's local content policy and legislation on the oil and gas industry have the potential to stimulate broad-based economic development, which is necessary to alleviate poverty and ensure sustainable economic and social development, its implementation has had mixed results. Four years on from the passing of the Petroleum (Local Content and Local Participation in Petroleum Activities) Regulations (LI 2204), it can be said that the country has made limited progress in both the employment of Ghanaians and enabling local firms to enter the supply chain of the industry. The principal reasons for this slow development are that the oil industry uses specialized inputs and requires complex technologies, which are often in short supply in underdeveloped economies such as Ghana. It is therefore important for Ghana to beware of trying to meet local content targets at all cost, since that may reduce the effectiveness of the oil and gas supply chain.

Nevertheless, the available literature largely recognizes that the implementation of LI 2204 and the local content policy has yielded some positive results in terms of job creation and increased use of Ghanaian goods and services. It has brought IOCs closer to Ghanaian SMEs and has given many SMEs the confidence to approach IOCs and offer services. Between 2010 and 2017, some 4,000 contracts and purchase orders worth over US$1.3 billion were awarded to indigenous companies (Africa Centre for Energy Policy 2017). The requirement for foreign companies to form JVs with indigenous Ghanaian companies under regulation 4(6) of LI 2204 has granted a number of

Ghanaian companies access to the technologies and operations of their international JV partners. As a result, Ghanaian participation in the award of contracts is currently over 20 per cent in both Tullow Ghana Limited and ENI Ghana Exploration and Production Limited (Africa Centre for Energy Policy 2017).

Despite increased local participation, however, indigenous companies continue to face various challenges, as enumerated above. Although LI 2204 specifies a sliding scale target for increase in local participation over a period, the limited capacity of Ghanaian companies makes it difficult to achieve these targets. To make the situation worse, the majority of indigenous companies do not specialize in the industry and therefore end up investing little in efforts to increase capacity. Indigenous companies tend to concentrate on providing the 'low-hanging fruits' instead of venturing into the high-earning services that propel this industry.

To achieve the effective implementation of LI 2204 and local content policy, the following actions are recommended:

1. The Petroleum Commission should intensify its monitoring function and promote specialized skills development and transfer of technology to Ghanaians. It is further recommended that the government amends the local content regulations to bridge the salaries and wages gap between expatriates and Ghanaian employees, as has been done in Angola and in the Middle East and North African (MENA) region. This will minimize the incidence of labour upheavals in Ghana.
2. Lack of financial support is a common barrier to the operations of indigenous Ghanaian companies. Worse is the high cost of borrowing. Intense competition from international players with cheaper access to finance from international financial markets crowds out local companies. The need for specific financial support for local SMEs in the oil and gas supply chain is necessary to enhance their competitiveness in the industry. Enterprise development initiatives aimed at the stimulation, incubation, and promotion of local SMEs is necessary for the long-term involvement of local SMEs in the industry.
3. Revising some of the LI targets to more practical or reasonable levels considering the in-country capacity is also recommended. As noted earlier, some of the targets of the LI and policy are ambitious. For example, the LI's minimum targets for the employment of Ghanaians and participation of local companies are 90 per cent and 50 per cent, respectively. As noted by Olsen (2013), no country has ever achieved these targets in the oil industry—not even developed nations.
4. The need for strategic partnerships between local firms and foreign firms is also recommended. For example, foreign and local companies should be allowed to work together where the foreign company provides a technology transfer to the indigenous company.
5. The state should impose import and customs duties on specific goods in support of its local content policy. This will protect non-competitive local producers. Corporate income tax might also be used to incentivize local ownership. For example, in India domestic companies are subject to tax at a rate of 30 per cent, while foreign companies bear a 40 per cent rate.
6. Since IOCs generally avoid engaging local technical staff, it is recommended that minimum local employment obligations, minimum salaries, and training requirements are imposed on them through legislation. Some job categories could be reserved specifically for Ghanaians with special skills in such jobs. Exemption might, however, be granted on a case-by-case basis by the relevant state authority. This would promote local workforce recruitment and progression.

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