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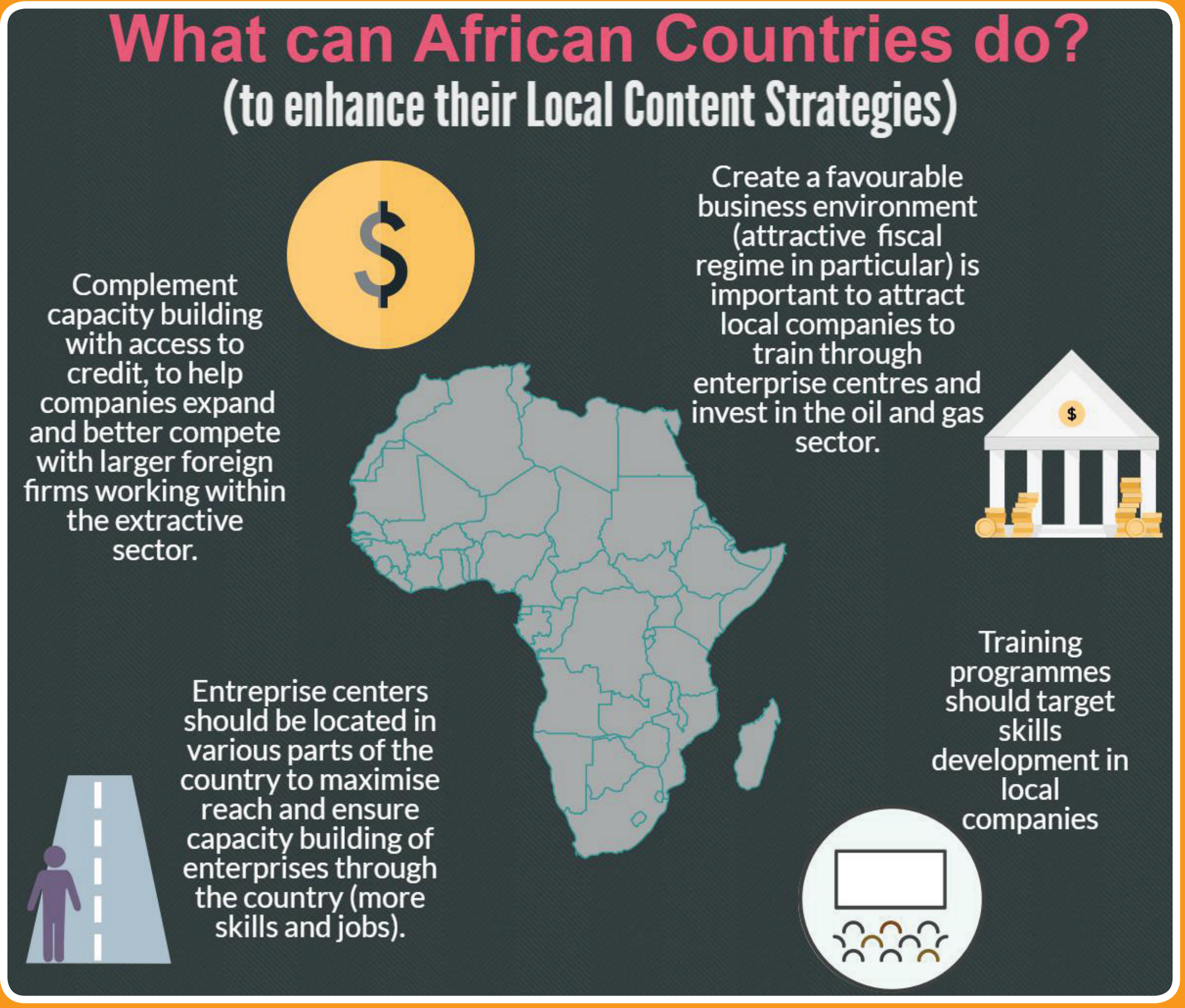
AFRICAN REGIONAL EVIDENCE PAPER



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ACODE Policy Research Series No. 72, 2016

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Acronyms / Abbreviations

ACODE	-	Advocates Coalition for Development and Environment
AECID	-	Spanish International Cooperation Agency for Development
AEP	-	Angola Enterprise Program
AfDB	-	African Development Bank
AINE	-	Agency for Investment and Exports
BP	-	British Petroleum
CAE	-	Centro de Apio Empresarial (Brazilian Business Support Centre)
CCSI	-	Colombia Centre for Sustainable Investment
CNOOC	-	China National Offshore Oil Corporation
CSO	-	Civil Society Organisation
CSR	-	Corporate Social Responsibility
EITI	-	Extractive Industry Transparency Initiative
EPZ	-	Export Processing Zone
FDI	-	Foreign Direct Investment
GDP	-	Gross Domestic Product
GEP	-	Equatorial Guinea Petrol
GNPC	-	Ghana National Petroleum Corporation
GoC	-	Government of Chad
GoT	-	Government of the Republic of Tanzania
ICT	-	Information and Communication Technologies
IFC	-	International Finance Corporation
IMF	-	International Monetary Fund
IOC	-	International Oil Company
LCF	-	Local Content Framework
LCMC	-	Local Content Monitoring Committee
LCPs	-	Local Content Policies
LSS	-	Local Scholarship Scheme
MMIE	-	Ministerio de Minas Industria y Energia (Brazilian Ministry of Mines and Energy)
MoEMD	-	Ministry of Energy and Mineral Development
MPSA	-	Model Production Sharing Agreement

MPSC	-	Model Production Sharing Contract
NCDMB-		Nigeria Content Development and Monitoring Board
NDP	-	National Development Plan
NGO	-	Non-Government Organisation
NIP	-	National Industry Participation
NNPC	-	Nigerian National Petroleum Corporation
NOC	-	National Oil Company
NOGP	-	National Oil and Gas Policy
OSS	-	The Overseas Scholarship Scheme
PAL	-	Petroleum Activities Law
PRSP	-	Poverty Reduction Strategy Papers
PSA	-	Production Sharing Agreements
PSMC	-	Pipeline Steering and Monitoring Committee
PTDF	-	The Petroleum Technology Fund
PTL	-	Petroleum Taxation Law
SADC	-	Southern Africa Development Community
SEZ	-	Special Economic Zone
SHT	-	Société des Hydrocarbures du Tchad (Hydrocarbons Society of Chad)
SIIND	-	Sonangol Industrial Investment
SMEs	-	Small and Medium Enterprises
SOTC	-	Stavanger Offshore Technical College
SURF	-	Subsea Umbilicals, Risers and Flowlines
TPDC	-	Tanzania Petroleum Development Corporation
TRIMS	-	Trade Related Investment Measures
UNDP	-	United Nations Development Programme
UNOC	-	Uganda National Oil Company
WBG	-	World Bank Group
WEF	-	World Economic Forum

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1.0 Summary

This paper seeks to identify the main characteristics and outcomes of local content frameworks (LCFs) in African oil and gas producing countries. This research is based on the hypothesis that the more specific the LCFs, the better the outcomes. The study adopts a comparative case study approach based on experiences in seven African countries (Angola, Chad, Equatorial Guinea, Ghana, Nigeria, Tanzania and Uganda) with aim of understanding the broader context and trends. To achieve this objective, a regional catalogue of LCFs and practices is developed in order to fill the knowledge gap about local content experiences in Africa. The cases of Angola and Chad are explored in greater detail in order to identify additional factors that may shape the outcomes of LCFs.

The research reveals two main findings. First, all seven countries in the study have implemented LCFs to promote local employment, skills development and national industry participation. However, only Angola, Ghana and Nigeria have developed specific local content policy, legislation and contracts for the oil and gas sector. Second, there appears to be a direct correlation between specificity of LCFs and the outcomes achieved. Countries with more specific LCFs (such as Angola and Nigeria) tend to produce better outcomes while those with less specific frameworks (Equatorial Guinea, Tanzania and Uganda, for example) produce weaker outcomes.

The analysis also shows that Ghana and Chad are exceptional cases. Although Ghana has a specific LCF, it has registered low outcomes probably because of the short time the country has had to implement the provisions. On the other hand, although Chad has no specific legislation or policy relating to local content, it has achieved outcomes comparable to Angola and Nigeria, thanks largely to a relatively conducive fiscal regime and the establishment of an enterprise centre which has built capacity and developed skills among local companies and has played a pivotal role in negotiations around production sharing contracts with international oil companies (IOCs).

The research also established that National Oil Companies (NOCs) represent a key institution in the management of natural resources in many African countries. It is therefore important for countries that are still developing their LCFs to consider establishing such an institution.

These research findings are expected to motivate African policy makers and practitioners in the oil and gas sector to include specific legislation, policy and model contracts in LCFs as an important first step towards operationalising local content as a sustainable and alternative strategy for avoiding the resource curse. Furthermore, scholars from academia, think tanks and other research institutions should find the research outputs as a valuable addition to current knowledge on the oil and gas sector and as an impetus to conduct more research on local content in this sector.

2.0 Introduction

Several African countries have adopted local content frameworks (LCFs) as a mechanism to transform short-term benefits of natural resource extraction into long-term development. Local content refers to the extent to which the output of the extractive industry sector generates further benefits in the economy beyond the direct contribution of its value-added, through its links to other sectors. Local content is measured by project, affiliate, and/or country aggregate and undertaken through such strategies as workforce development (employment and training of local labour) and developing and procuring supplies and services locally (IPIECA, 2011). LCFs are established as policies, laws and contracts developed by the state at the central or local level.

Whereas investment of resource rents, royalties and taxes is often seen as the main facet of development through natural resources, local content policies represent a second avenue for achieving positive developmental outcomes. While the oil and gas sector will never be a significant employer without linkages to the service sector and beyond, local content frameworks encourage local employment and skills development by multinational companies. LCFs can also require these companies to invest in facilities for local manufacturing and service provision. The capital retained in the local economy as a result of well-implemented local content frameworks has the potential to be larger than royalties and taxes from extraction (Ovadia, 2014; Esteves et al., 2013; Easo & Wallace, 2014; IPIECA, 2011; Ntsimi, 2011; Levett & Chandler, 2012; World Bank Group, 2015a).

While the value added from local content can take a long time to materialise, the long-term advantages of empowering a nation to benefit directly from its country's wealth of resources are well-worth pursuing. The ultimate aim is simple: to ensure that the exploitation of natural resources is not a curse but a blessing which generates sustainable social and economic benefits to society (Easo & Wallace, 2014).

Experiences regarding the adoption and implementation of LCFs and practices are mixed and the observable outcomes depend on a series of factors such as the specificity of the LCF, the vision a country has in terms of the benefits that should be achieved through prioritisation of strategies, the business environment and fiscal regime and the ability to enforce compliance. Countries around the world have established specific frameworks to foster local content through the promotion of employment, skills development and national industry participation in the oil and gas sector. These frameworks vary from broader local content policies articulated in national development plans, to legislation (local content laws, decrees, regulations etc.), and specific provisions in contracts with local and international firms. Literature documenting lessons on how these frameworks have been designed, adopted and implemented cover diverse scenarios from mineral rich countries outside Africa, leaving a clear knowledge gap to be filled in Africa.

This research aims to analyse which LCFs produce better outcomes and what challenges, if any, affect implementation. The main research question is: what are the main characteristics of local content frameworks in oil and gas producing countries in Africa and what have been the outcomes of these frameworks? The hypothesis for this question is *'the more specific the local content frameworks the better the outcomes'.*

The research involved a review of the implementation and outcomes of LCFs in seven oil and gas producing countries in Africa and two specific cases, namely Chad and Angola. Through analysis of Angola and Chad, the study seeks to identify the factors that might influence local content outcomes. In doing so, the study aims to provide policy makers and practitioners with evidence about the design of different LCFs and possible outcomes. The mapping of case studies in Africa also intends to serve as a regional local content catalogue that will provide the basis for future research in this field.This analysis is particularly relevant for African countries that are still developing their LCFs, such as Uganda, since it will help deepen appreciation of the factors that need to be taken into account when designing, implementing and monitoring local content legislation, policy and practices.

3.0 Research Design and Methods

Local content frameworks (LCFs) are conceptualised as an independent variable, while local content outcomes represent a dependent variable. The dependent variable is measured in relation to three indicators: i) employment directly generated by oil and gas companies; ii) skills development in the form of training and knowledge transfer for the benefit of the national/local workforce, and; iii) national industrial participation in terms of the measures taken to increase participation of national/local companies along the oil and gas value chain.

In order to answer the research question and test the hypothesis, a case study approach was adopted based around three key activities:

a. *Identification of seven sub-Saharan African oil and gas producing countries.* The criteria for selection were countries:

   i. With large oil and gas deposits that have already adopted local content frameworks

   ii. With a different colonial history (anglophone, francophone or luciphone) implying that they may adopt different policy approaches

   iii. That have recently discovered oil and gas deposits and are developing their local content frameworks

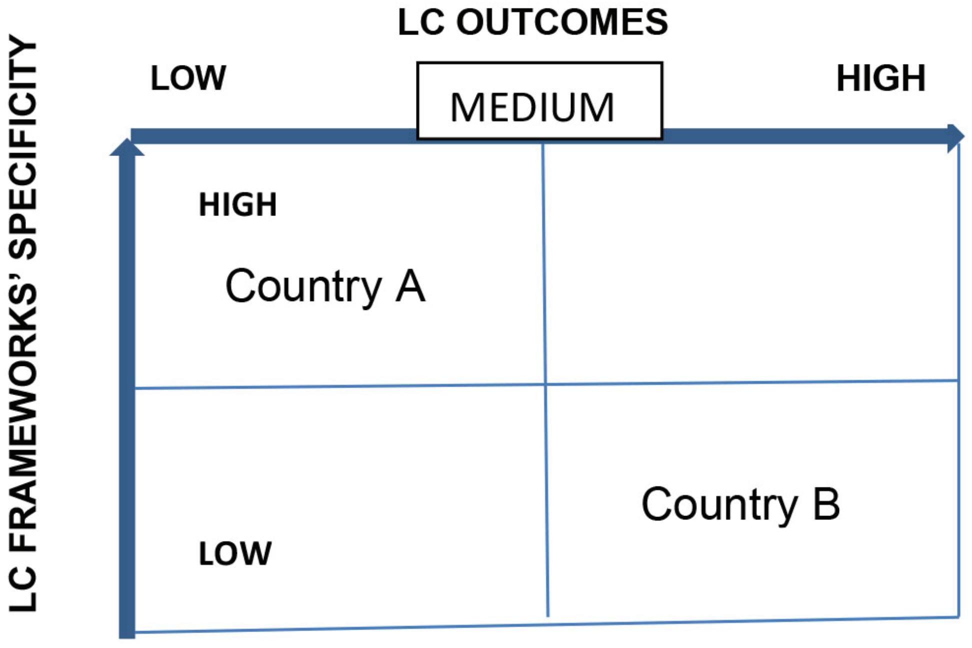
   Based on the above criteria, the study selected the following seven countries: Angola, Chad, Equatorial Guinea, Ghana, Nigeria, Tanzania and Uganda. The analysis identified which of three specific types of strategy for promoting local content are contained in each country's framework i.e promotion of local employment, skills development for nationals and national industry participation. Sources of information included existing policy documents, legislation and contracts. Additional sources of data include information from enterprise centres and reports from governments and international oil companies. Based on this exercise, a local content catalogue was compiled for the African region and is provided in Annex 1.

b. *Establishing connections between the specificity and outcomes of local content frameworks.* Data collected during the mapping exercise was used to score and classify LCFs in terms of their specificity relating to three principle dimensions – local employment, skills development and national industry participation – and based on the following four criteria: i) the degree to which local content is embedded in general or sector specific policies, legislation or contract clauses; ii) the extent to which LCFs include measurement mechanisms; iii) the extent to which LCFs include monitoring and/or implementation mechanisms, and; iv) the degree to which LCFs are reflected in industry contracts. At the same time, LCFs were scored and classified in terms of their outcomes in relation to local employment, skills development and national industry participation. Each country was allocated a separate score for specificity and outcomes on a scale between 0.5 (low) and 1.5 (high). A [-] was assigned in the criteria signifying lack of information. Annexes, 3 and 4 present a more detailed explanation of the assessment criteria relating to specificity and Annexes 5, 6 and 7 provide information that was utilized to determine the scores on outcomes.

c. *Analysing the relationship between specificity and outcomes and case study selection.* A 2x2 matrix was developed to help visualise the relationship between specificity and outcomes of LCFs for all seven countries, as shown in Figure 1 below. This matrix brought out the following four scenarios amongst the seven African countries:

- More specific frameworks – medium outcomes
- More specific frameworks – low outcomes
- Less specific frameworks – medium outcomes
- Less specific frameworks – low outcomes

Figure 1: Correlation Between LCF Specificity and Outcomes (A)



After plotting all seven countries onto this matrix, two countries were selected that demonstrated different levels of specificity yet similar outcomes. The purpose of this selection was to explore and explain why different frameworks in terms of specificity might produce similar outcomes and what other factors could explain why this happened.

4.0 Regional Evidence Synthesis

Local Content in Africa: What Do We Know?

Although countries like Angola, Nigeria and Ghana have adopted more specific local content frameworks (LCFs), to date no comparative assessment has been undertaken to provide insights into best practices which can help inform other countries in Africa that are still developing LCFs for the oil and gas sector. In addition, there is a current lack of evidence around the level of public participation in the processes of formulating and implementing the LCFs.

Macro Economic Context

Table 1 below summarises some of the main characteristics of the oil and gas sector in the seven African countries selected for this study. The World Bank reports that oil and gas exports account for about 90 percent of total exports of Angola, Chad, Nigeria and Equatorial Guinea. Among these countries, Nigeria has a more diverse economy with the oil sector accounting for about 13 percent of Gross Domestic Product (GDP) and 65 percent of tax revenues (World Bank, 2015:5). Similarly, oil production and oil products represent 78 percent of GDP, almost all exports and 89 percent of tax revenues in Equatorial Guinea[1] (AfDB, 2012:4). At the same time, other countries have shown progress towards commercial development of newly discovered resources in recent years. Uganda and Tanzania, for example, are in the advanced stages of developing their oil and gas sectors with exploration having aready taken place. Oil and gas exploration in Tanzania has been conducted intermittently for the last 60 years with natural gas being discovered in Songo Songo Island and Mnazi Bay in 1974 and 1984 respectively. Tanzania has not yet discovered commercial oil todate. However it took three decades for gas production to get underway in Tanzania. The Tanzania Petroleum Development Corporation (TPDC), a state corporation, was formed to implement petroleum exploration and development policies. It acts as the country's national oil and Gas Company and currently has equity in Mnazi Bay Gas Development Project. Oil exploration in Uganda dates back to the early 1920s after oil sepes were reported along the shores of Lake Albert. In 2006, the first comercial oil discoveries were made in the Albertine Grabben. Since then over 50 wells have been drilled and the vast majority encountered oil. Tullow, Total and China National Offshore Oil Corporation (CNOOC) are the companies currently exploring for oil and gas in Uganda. Successful appraisal boosted Uganda's proven crude oil reserves from zero in 2010 to 2.5 billion barrels as of January 1, 2013 (EIA, 2013).

According to the African Development Bank, oil tax revenue contributed about 63 percent of total revenue in Chad in 2011, down from 65 percent in 2010 [2]. The 2015 British Petroleum (BP) Statistical Review of World Energy survey showed that the country's commercial oil reserves were estimated at 1.5 billion barrels. Companies

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[1] African Development Bank's _Equatorial Guinea Economic Outlook_, accessed February 2016

[2] African Development Bank's _Chad Economic Outlook_, accessed March 2016

currently producing oil in Chad include a consortium comprising ExxonMobil, Chevron and Petronas. In 2011, Griffiths Energy International entered Chad's upstream sector by signing three production sharing agreements (PSAs). In 2012, Glencore International bought a 25 percent share in Griffiths' exploration license (Freshfield Bruckhaus Deringer, 2013a:1).

By 2014, Angola's oil and gas industry accounted for about 46 percent of GDP, 80 percent of government revenue and 95 percent of exports. Virtually all of the major inputs for the Angolan oil industry are imported[3] . Oil production in Angola was expected to reach 2 million barrels per day in 2015 up from 1.75 million barrels per day in 2012. If the newly discovered pre-salt reserves prove similar to those found in Brazil, and as such Angola could soon become Africa's largest oil producer. According to the Deutsche Bank Research (2013:1), production of natural gas was also expected to rise and exceed domestic consumption by the end of 2013.

In the case of Ghana, oil was discovered offshore along the Cape Three Points in the Western region in 2007. The discovery named the Jubilee Field started with a prodcution of 80,000 barrels per day and currently produces about 110,000 barrels per day. Oil contribution to Ghana's GDP is minimal compared to other oil and gas producers in Africa. In 2013, oil and gas contributed about 7.7 percent of GDP up from 6.2 percent in 2011. In 2014, the share of oil in overall GDP was 9.3 percent. Revenue from oil and gas accounted for about 13.5 percent of total revenue in 2014 up from about 9.5 percent in 2013. In recent years, crude oil exports have increased as a percentage of total exports rising from 21.7 percent in 2011 to 28.7 percent in 2014 (Government of Ghana, 2015; Planitz & Kuzu 2015). Ghana's oil and gas sector is largely dominated by private players. The Ghana National Petroleum Corporation (GNPC) accounts for about 13.7 percent, Anadarko Petroleum Corporation and American Kosmos Energy Ltd each account for 23.5 percent, Tullow Oil accounts for 36.5 percent, while Sabre Oil and Gas accounts for just 2.8 percent share in the oil and gas industry in Ghana (Grail Research, 2015:9).

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[3] African Development Bank's *Angola Economic Outlook*, accessed March 2016.

Table 1: Characteristics of the Oil and Gas Sector in Selected African Countries

Country	Contribution of Hyrocarbons and Mining to GDP (%)	Oil and Gas Exports (as % of Total Exports)	Thousands of Barrels Produced Daily (2014)	Proven Reserves in Billions of Barrels	R/P Ratio in Years*
Angola	46	95	1712	12.7	20.3
Chad	27	63	78	1.5	52.4
Ghana	9.3	18	110	0.7	0.2
Nigeria	13	65	2361	37.1	43.0
Equatorial Guinea	78	98	281	1.1	10.7
Tanzania	n/d	n/d	n/d	0**	n/d
Uganda	n/d	n/d	n/d	1.4	n/d

Sources: Data collected from the African Economic Outlook and African Development Bank websites, as well as World Bank (2015:5a and 39) and British Petroleum (2015:8).

n/d = data not available

** Reserves-to-production (R/P) Ratio, calculated by dividing the reserves remaining at the end of any year by the production in that year. The result is the length of time that those remaining reserves would last if production were to continue at that the same rate.*

***0 = No oil has been discovered recently in Tanzania, however 55 trillion cubic feet of gas have been found in blocks off the country's southeastern coast (Bariyo, 2015).*

African Approaches to Oil and Gas Sector Development

Most African countries that have discovered oil and gas attracted foreign companies to explore and develop these resources. This was accomplished through signing contracts with companies in exchange for a share of the revenues. In order to ensure the nation benefitted from resource extraction, several countries formed National Oil Companies (NOCs) to function as a key agency in exploration and development processes. Table 2 below shows the NOCs in the seven selected countries. All the companies are nationally owned without any private sector holding. This contrasts with practice in other resource rich countries where shares in NOCs have been offered to local private sector companies.

Table 2: National Oil Companies in Selected African Countries

Country	National Oil Company	Acronym	Private Share
Angola	Sociedade Nacional de Combustiveis de Angola	Sonangol	None
Chad	Société des Hydrocarbures du Tchad	SHT	None
Nigeria	Nigerian National Petroleum Corporation	NNPC	None
Ghana	Ghana National Petroleum Corporation	GNPC	None
Equatorial Guinea	GEpetrol	GEP	None
Tanzania	Tanzania Petroleum Development Corporation	TPDC	None
Uganda	Uganda National Oil Company (yet to be functional	UNOC	None

Source: Authors' own analysis

Studies show that NOCs have an important role to play in the development, implementation and management of LCFs, and this is certainly the case in most of the oil and gas producing countries in Africa (Okafor & Aniche, 2014; Tordo et al., 2013). For example, in Ghana, the Ghana National Petroleum Company (GNPC) has promoted the involvement of Ghanaians in offshore and onshore activities through providing certain services. On the other hand, the extractive industry in Ghana is extremely capital intensive and local companies remain limited in terms of providing ancillary services such as real estate and hospitality because they cannot raise sufficient capital, are not yet competitive, lack industry certification or face high costs of doing business. As a result, International Oil Companies (IOCs) still import some food and other supplies in Ghana.

In the case of Angola, the state-owned oil company, Sonangol, is at the centre of the oil industry. By law, multinationals that want to do business in Angola must associate with Sonangol in the form of a joint venture or via a Production Sharing Agreement (PSA). To win contracts, multinationals must pay signature bonuses that can run into billions of dollars, however these figures are not made public. Evidence indicates that some public officials own or are shareholders in Angolan companies that have been awarded oil contracts, which violates Angolan and International law. For example, Ramos (2011:1) argues that, *"the principle of confidentiality enshrined in Angola's oil laws encourages corruption and creates a pathway for the diversion of oil revenues legally shielded from the public domain".* Furthemore, Sonangol both administers and regulates the oil industry; a scenario that creates a clear conflict of interest since the NOC performs functions that should be under the purview of the Ministry of Finance or the Central Bank. Sonangol also plays a monitoring role, effectively by-passing the Ministries of Petroleum and Environment (Ramos, 2011).

It has also been argued that through Sanangol the Angolan elite have become the major beneficiary of oil and gas resources. In a recent study, Ovadia (2012:415) concluded that *"without a wider and more diverse group of Angolans engaged in the conversation about oil and development in Angola, the promotion of local content will continue to be shaped by the needs and priorities of the few. Local content development will continue* *in its dual roles of creating economic growth (most likely without impacting significantly the majority of Angolans), while enabling new forms of elite accumulation to ensure the maintenance of the political and economic class."*

The experiences from Angola and Ghana suggest that NOCs must improve the transparency of their operating mechanisms and involve more citizens in the oil and gas sector. Such measures are possible through devising more specific local content measures as can be observed in other African countries.

Inspite of the weaknesses described above, Angola in fact provides a valuable example of local content having developed local content provisions and policies aimed at boosting infant industries through promoting Angolan employment, Angolan ownership of businesses and supply of Angolan products and services to the oil and gas sector (Tordo & Anouti, 2013). Unfortunately, there is a lack of data available for measuring the impacts of local content on national aggregate and the information that is available is scattered among the databases of key institutions and centres such as the NOC, the Enterprise Centre and IOCs.

Similarly, the development of LCF has been taken seriously in Nigeria. The Nigerian National Petroleum Corporation (NNPC) with its subsidiaries, the Nigerian Petroleum Development Company, National Petroleum Investment Management Service, Intergrated Data Service Limited, the Nigeria Gas Company Limited and National Engineering and Technical Limited, have been instrumental in the development of the oil and gas sector. Established in 1977, the NNPC was vested with exclusive responsibility for upstream and downstream developement as well as regulating and supervising the oil industry on behalf of the Nigerian Government (Ugwushi et al., 2009; Ozigbo, 2008). The Nigerian Local Content Development Act 2010 provides a framework for promoting the participation of Nigerians in all aspects of the oil and gas industry and sets minimum thresholds for local materials and personnel to be used by oil and gas operators (Ovadia, 2013). For example, Nigerian law stipulates that 65 percent of divers in energy projects must be Nigerian and 60 percent of steel ropes must be made locally. The Nigerian Content Development and Monitoring Board (NCDMB) estimates that local capture of oil industry spends have grown from 5 to 40 percent in the last decade (Ovadia, 2013:145). With an annual investment of USD$15 billion in the oil and gas sector, local content measures would ensure that over USD$5 billion is retained by the Nigerian economy annually. Similarly, manufacturing increased from 8.65 percent of GDP in 2013 to 9 percent in 2014 (NBS, 2014:6).

Ghana recently adopted local content policies in 2011 after discovering oil and gas resources in 2007. The main aim of these policies is to enable locals to participate in 90 percent of exploitation processes. The objectives of local content in oil and gas are defined in the 2009-2010 National Energy Policy and the corresponding regulations are set out in the Petroleum Commission Act 2011(Act 821 and the 2013 Regulation) (Amoako et al., 2015). The objectives of the National Energy Policy 2009-2010 include maximising the benefits of wealth generated through oil and gas, building local capability in all aspects of the oil and gas value chain through education, skills and expertise development, transfer of technology and know-how, increasing international competiviveness of local businesses, creating oil and gas and related industries to sustain economic development and developing an active research and development portfolio.

Ghana improved its LCF through progressive legislations and the establishment of the Ghana National Petroleum Corporartion (GNPC). The Petroleum Regulation 2013, which includes local content provisions, took effect in February 2014. The purpose of this legislation is to maximise value and job creation through the use of local expertise, local goods and services, local business and local financing in the petroleum industry. Other aims include developing capacity through education, skills transfer, expertise development and transfer of technology; increasing the capability and international competitiveness of domestic business; creating petroleum and related supportive industries; and providing for robust and transparent monitoring and reporting systems to ensure the delivery of local content policy objectives.

Yet one thing is having good laws and another is implementing them. As recent study by Senoo et al. (2015) found, "despite the fact that the rationale for instituting such policy and legislation is highly laudable, the alignment of the legislation, the social, economic and political context and stakeholder involvement do not support effective implementation". The case of Ghana highlights the fact that the specificity of the local content framework alone is not sufficient to bring out the desired outcomes in the short and medium term. Therefore, countries in the process of developing local content policies, relevant legislations and appropriate contracts like Uganda, Tanzania and Equatorial Guinea should avoid copying wholesale what their counterparts have done without studying the context.

Unlike in other countries, the local content framework is not fully developed in Chad where no specific policy or law on local content has been developed to date. However actions taken in respect of local content are promoted by provisions in recent model contracts used in negotiations with IOCs. In the past, Chad relied on the Enterprise Centre and on the good will of IOCs as they implemented their Corporate Social Responsibility (CSR) strategies. Key legislation relating to the upstream hydrocarbons sector includes law No. 006/PR/2007 dated 20 April 2007 on hydrocarbons, and amended in September 2010, which, together with the Petroleum Law, approves a model production sharing contract regulating exploration and production of liquid or gaseous hydrocarbons. Key institutions involved in the upstream petroleum sector include the Ministry of Energy and Petroleum (MEP) and the NOC Société des Hydrocarbures du Tchad (SHT). The mandate of SHT is to implement the industrial and commercial policies of the Republic of Chad in the hydrocarbons sector, principally through prospecting, exploration, development, production and transportation of hydrocarbons; refining, transportation, stocking and distribution of petroleum products; and trading of hydrocarbons and petroleum products. There is, however, no evidence or accessible data indicating whether or not the NOC has fulfilled its mandate to date. Nevertheless, Chad will have to build the capacity of its NOC in order to ensure it functions effectively as one of the primary agencies for LCF development and implementation (Gary & Reisch, 2005; Houdin & Gerin, 2010; World Bank, 2015).

The review of existing knowledge on Angola, Ghana, Nigeria and Chad reveals that the main local content strategies employed in these countries relate to local employment, skills development and national industry participation. It is also clear from existing legislations and policies that the intention of African countries is that LCFs will help diversify their economies and increase opportunities for citizens. NOCs play a critical role in the implementation of LCFs since they represent the main state agency operating and regulating the oil and gas sector. On the other hand, none of the seven counties selected for this study maintains clear records of national aggregate for local content.

Local Content in Africa: What Don't We Know?

Although the oil and gas sector is fundamental for various economies in the African region, current debate focuses on the desire to pursue local content and establish institutions and mechanisms to implement LCFs as soon as possible. To date, attempts to document local content experiences are scattered and there is no evidence of which strategies produce better outcomes. For instance, nothing is known about whether prioritising national industry participation would provide more skills and employment or why African countries with some experiences in local content have no national data aggregate and whether this is due to a lack of skills for documenting or measuring the outcomes of LCFs.

Documenting and analysing trends in the adoption of various types of LCF in Africa will build on existing literature by generating new information on cases that are not commonly analysed. Furthermore, African experiences covered in the literature have not been put into context and thus lack adequate analysis relating to good practices and shortcomings or other factors that might explain the varied nature of LCF outcomes. Accordingly, the regional mapping exercise carried out for this study will contribute evidence in terms of local content policy design options and their possible outcomes. It is expected that this information will provide policy makers in Africa with the tools to critically analyse the pathways that other countries have taken and the main lessons emerging from these experiences. These lessons will naturally be more relevant for countries in Africa than the benchmark cases usually covered in the literature, such as Norway, Australia, Malaysia, Kazakhstan and Canada. Similarly, analysing the LCFs adopted by African oil and gas producing countries will promote and inform the debate between policy makers and key implementers from across the continent.

5.0 Local Content Frameworks and Outcomes

This section is divided into two parts. The first, based on the regional catalogue provided in Annex 1, provides a summary of the specificity and outcomes of local content frameworks (LCFs) in Angola, Chad, Equatorial Guniea, Ghana, Nigeria, Tanzania and Uganda and identifies regional trends. The second part uses the 2x2 matrix to provide a discussion of the relationship between specificity and outcomes. Based on these findings, the cases of Angola and Chad are analysed in greater detail in order to identify why these countries, which have different LCFs in terms of specificity, have achieved similar outcomes in terms of local employment, skills development and national industry participation.

Local Content Framework Specificity

LCFs of seven oil and gas producing countries were assessed in terms of their specificity regarding three main dimensions - local employment, skills development and national industry participation - and based on the following four criteria: i) the degree to which local content is embedded in general or sector specific policies, legislation or contract clauses; ii) the extent to which local content frameworks include measurement mechanisms; iii) the extent to which local content frameworks include monitoring and/or implementation mechanisms, and; iv) the degree to which LCFs are reflected in industry contracts. Each country was allocated a score as follows; [

-] (lack of information), 0.5 (low), 1(medium), 1.5 (high) for each indicator. A detailed explanation of these criteria is provided in Annex 3. Table 3 presents the results of this exercise

Table 3: Local Content Frameworks Specificity Scoring

Dimension	Indicator	ANG	CHA	NIG	TAN	UGA	GHA	GUI
Local Employment	Presence in O&G Legislation	1.5	1	1.5	0.5	0.5	1.5	1
	Measurement	1.5	0.5	1	0.5	0.5	1	0.5
	Monitoring and Implementation	1	0.5	1	0.5	0.5	1	0.5
	Contracts	1.5	1	1.5	0.5	0.5	1	0.5
Skills Development	Presence in O&G Legislation	1	1	1.5	0.5	0.5	1	1
	Measurement	1	0.5	0.5	0.5	0.5	1	0.5
	Monitoring and Implementation	1	0.5	0.5	0.5	0.5	1	0.5
	Contracts	1	1	1	0.5	0.5	1	0.5
National Industry Participation	Presence in O&G Legislation	1.5	1	1	0.5	0.5	1.5	1
	Measurement	1	0.5	0.5	0.5	0.5	1	0.5
	Monitoring and Implementation	1	0.5	0.5	0.5	0.5	1	0.5
	Contracts	1	1	1	0.5	0.5	1	1
	Total Average	**1.17**	**0.75**	**1.14**	**0.5**	**0.5**	**1.08**	**0.67**
	Local Employment	1.4	0.75	1.25	0.5	0.5	1.12	0.63
	Skills Development	1	0.75	1.17	0.5	0.5	1	0.63
	National Industry Participation	1.1	0.75	1	0.5	0.5	1.12	0.75

Source: Author's own elaboration

Table 3 shows that of the seven countries, Ghana performs very well with regards to national industry participation with a score of 1.12 followed by Angola with a score of 1.1. Chad, Equatorial Guniea, Tanzania and Uganda score lowest in terms of national industry participation. This may be because the majority of the countries selected for this study are still in the process of developing their LCFs. In terms of local employment, Angola performed well with a score of 1.4 followed by Nigeria which scored 1.25 and Ghana which scored 1.12. As the averages in Table 3 demonstrate, most of the countries have developed more specific frameworks relating to local employment than to skills development or national industry participation. In regard to skills development, Nigeria performed best with a score of 1.17 followed by Angola and Ghana, both with a score of 1. According to available literature, the NOCs of these three countries play a predominant role in the oil and gas sector and take a lead in implementing the LCF (CRES, 2008; Tordo & Anouti, 2013; Amoako et al., 2015).

The following section briefly describes the main findings relating to the specificity of each country's LCF.

Angola (specificity score – 1.17) demonstrates the highest score for specificity amongst all seven countries. One of its national goals is to protect and develop domestic production and supply for the oil and gas industry. Local content rules broadly aim to promote Angolan employment, Angolan ownership of businesses, Angolan industry, production and services (Eduardo Vera-Cruz Advogados, 2013; CRES, 2008). Key legislation governing the oil and gas sector in Angola includes the Petroleum Activities Law 2004 (PAL) and the Petroleum Taxation Law Petroleum 2004 (PTL) which promote local content through several specific provisions including encouraging operating companies to develop annual training plans and get these approved by the Ministry of Petroleum before implementation. Article 26 (1) of the PAL expressly determines that the Angolan government should adopt measures to guarantee, promote and encourage investment in the petroleum sector by companies held by Angolan citizens and create the conditions necessary for these objectives to be achieved. Finally, the PTL provides the fiscal framework generally applicable to petroleum operations in Angola. As a result of this framework, the government is setting up facilities in the country to carry out manufacturing that was previously done abroad. LCF implementation has promoted linkages to manufacturing in the oil and gas sector (Teka, 2012).

Nigeria (specificity score – 1.14) is the largest producer of oil and gas in sub-Saharan Africa and its local content framework has been developed over time. The National Development Plan and Vision 2020 enclose general provisions regarding employment or national priorities regarding employment. Local content objectives in Nigeria aim to expand the upstream sectors of the oil and gas industry; diversify sources of investment into the sector, including from local sources; integrate the oil and gas industry into the mainstream economy; promote local participation and foster technological transfer. The Petroleum Technology Fund (PTDF) finances the Overseas Scholarship Scheme (OSS) and the Local Scholarship Scheme (LSS). Public-private partnerships policy promotes training of Nigerians in various fields (CRES, 2008). Nigeria also adopted a progressive legislation known as the Nigerian Oil and Gas Industry Content Development Act 2010.

Chad (specificity score – 0.75) has no specific local content policy and actions taken in the past were based on general policy provisions contained within such documents as the National Development Plan (NDP) and Poverty Reduction Strategy Papers (PRSPs). The NDP contains general provisions and national priorities regarding employment. The Constitution of Chad also provides a framework setting out state responsibilities regarding natural resources. At the time of the Chad – Cameroon Oil Development and Pipeline Project (from March 2001 to July 2003), despite no local content legislation being in place, by the end of 2009 outcomes could be observed in terms of employment, skills development and national industry participation. Subsequently in 2011, Production Sharing Agreements and contracts signed between the government and the IOCs contained local content provisions relating to skills development, employment and local company participation. Based on general policy provisions contained within the NDP and PRSPs, foreign firms operating in Chad at the time of pipeline construction, particularly those in the petroleum and telecommunications sector, adopted Corporate Social Responsibility (CSR) strategies which included committments to extensive training of local staff, purchasing local goods and donating excess equipment to charities or local governments. Through state-driven action, the International Finance Corporation (IFC) partnered with an oil industry consortium, sub-contractors, international non-government organisations (NGOs) and the Chamber of Commerce to support local small and medium enterprises (SMEs) and build linkages between the oil industry consortium and local suppliers (Ntsimi, 2011). In 2010, a model production sharing contract was approved which regulates exploration and production for liquid or gaseous hydrocarbons and supplementary laws were put in place (Eduardo Vera-Cruz Advogados, 2013). Key institutions involved in the upstream petroleum sector include the Ministry of Energy and Petroleum (MEP), the National Assembly and the NOC Société des Hydrocarbures du Tchad (SHT). Although Chad's performance is close to medium in terms of local employment, skills development and national industry participation, there is no clear prioritisation in terms of strategy. This suggests that it is important to design specific local content policy and legislation in order to enhance what is already embedded in contracts, improve the sustainability of implementation and strengthen outcomes.

Ghana (specificity score – 1.08) is one of the few countries in Africa that has developed a comprehensive local content framework for the petroleum sector which focuses on local employment and national industry participation. Ghana's LCF envisions a strong role for government which should *"seek to provide the enabling environment and opportunities for Ghanaians to benefit from the economic wealth that emanates from the activities in the oil and gas industry."* A study performed by the Colombia Centre for Sustainable Investment on local content in Ghana states that, *A key objective is to promote the maximisation of value addition and job creation through the use of local expertise, goods and services, businesses and financing in the petroleum industry value chain and their retention in the country'* (CCSI, 2014: 4). .. Section 5.4 of the oil and gas sector local content policy requires that as far as possible all opportunities for employment in various levels of operation are given to Ghanaians who possess the requisite expertise or qualifications. This includes the requirements that at least 50 percent of management staff should be locals, increasing to 80 percent within 5 years of the start of activities. Similarly, 30 percent of technical staff should be Ghanian nationals, increasing to about 80 percent within the first five years of production (World Bank Group, 2015a). Within 12 months of license approval, operators are required to submit a detailed annual recruitment and training programme for citizens to the relevant regulatory agency for approval.

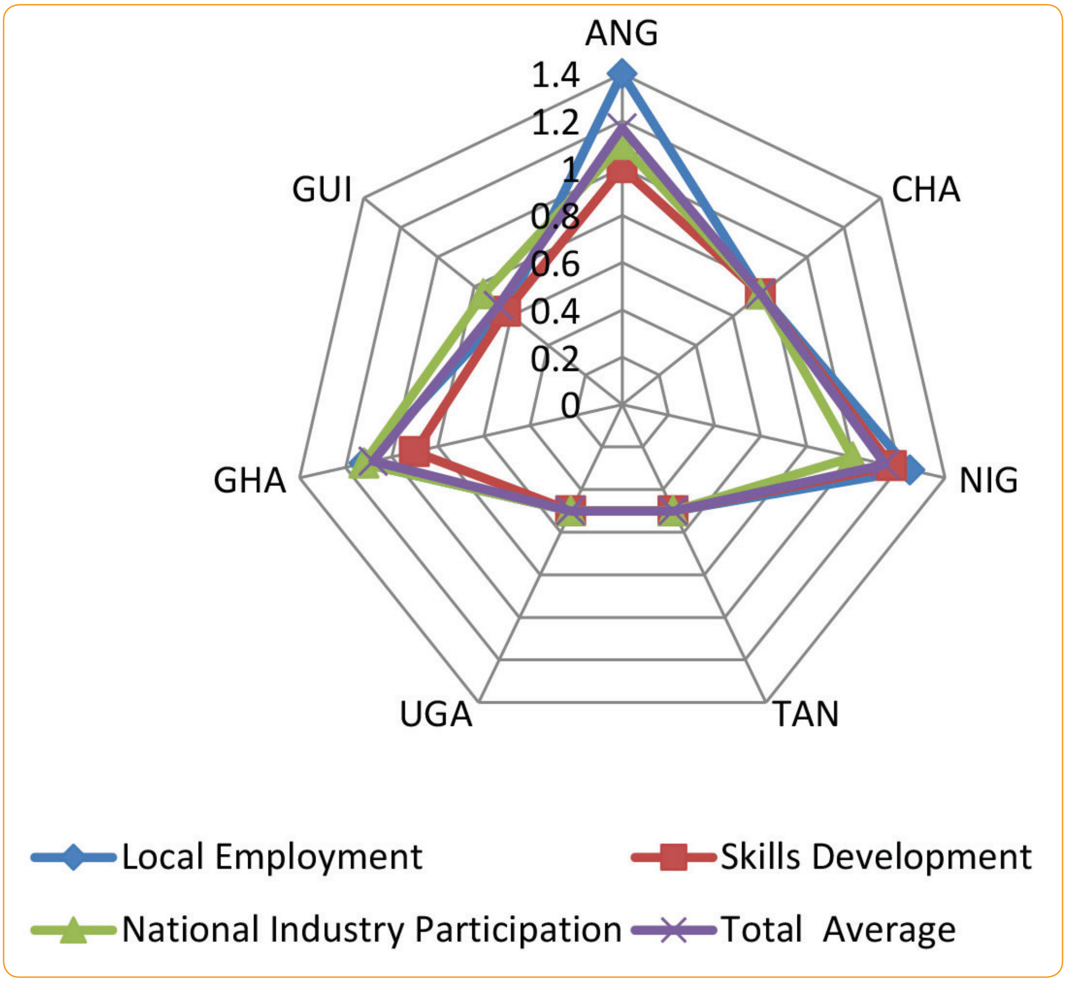
Equatorial Guinea (specificity score – 0.67) has fewer local content provisions which are scattered among various general laws. The National Development Plan 2020 provides for skills development which entails improving academic education, vocational training and access to information and communication technologies (ICT). The 2014 Regulation reinforces the local content of Equatorial Guinea's Hydrocarbons Law of 2006 which sets out benefits to be gained from oil and gas exploitation such as building the capacity of Equatorial Guinean citizens leading to greater participation of national companies in the sector through joint ventures with foreign companies. Like the 2006 law, the 2014 regulation faces implementation challenges. Although companies express an interest in following the law, it is not yet enforced effectively due to a lack of skills and weak local companies that are not capable of meeting the needs of the IOCs.

Tanzania (specificity score – 0.5) has some of the more basic local content provisions which are scattered among general laws. The draft national local content policy is in the public domain but pending approval. The aims of this policy are to build a local workforce with adequate skills, foster the transfer of knowledge and technology, and establish a mechanism to enable Tanzanian firms to tap into opportunities to supply goods and services to the oil and gas sector. The National Development Plan (NDP) 2011-2016 contains provisions for employment creation, for example *"support and facilitation for youth projects and programs: enterprise mentorship, business opportunities support services, formation of youth cooperatives and joint ventures".* The NDP also contains provisions to develop a highly skilled work force to help the nation achieve middle income country status, as well as provisions for developing the manufacturing sector and creating a Special Economic Zone (SEZ) and Export Processing Zone (EPZ) to boost oil and gas sector development and investments, as well as in relation to the Tanzanian economy as a whole (Government of Tanzania, 2012).

In Uganda (specificity score - 0.5) local content provisions are contained within general laws and the National Content Policy for the petroleum sector is still being debated at cabinet level. The National Oil and Gas Policy (NOGP), which was approved in 2008, contains provisions for employment of suitably qualified Ugandans. Similarly, Uganda's 'Vision 2040' states that the government is expected to "transform the human resource and build critical mass of scientists, engineers and technicians in the oil and gas sector. Special programmes to train a highly specialized oil and gas areas of geoscience and engineering in other international institutions will be pursed". Furthermore, the 2011-2016 National Development Plan states that it is the responsibility of the government *" to develop and strengthen the capacity of the petroleum Directorate, the petroleum Authority, the National Oil Company and related institutions to effectively monitor operations and participation of citizenry"*(MoEMD, 2011).

In terms of regional trends, it is possible to observe that majority of the countries emphasise the promotion of local employment (see Figure 2 below). This is not surprising since local employment requirements can be easily adopted in the short-term. However, without a skills development framework and national industry participation, this strategy faces the risk of enhancing employment dependency on the extractives industries. Skills development is the category with the lowest average score in the region. Most of the countries have frameworks with provisions to improve workforce development through training and fostering of technological transfer. However, these provisions are general and do not contain complementary frameworks for implementation. Nigeria achieved the highest score in this category, mostly due to provisions within national policy which stipulate that contractors must submit a detailed work programme for training Nigerians and that costs and expenses related to training and work placements should be covered by development and production.

Figure 2: Local Content Priorities in Africa



Source: Author's own elaboration

In addition to local employment and skills development, national legislation in Angola and Nigeria places greater emphasis on manufacturing and enterprise development compared to the other countries in the study. For instance, in Angola, Angolanisation of the work force led to the establishment of the Centro de Apoio Empresarial (the Business Support Centre or CAE) to facilitate job creation and provide training and technical assistance for developing local companies.This approach has increased participation by local companies in the oil and gas sector.Equatorial Guinea, Uganda, and Tanzania seem to be finding their bearings in terms of prioritising local content strategies since this is a relatively new endeavour for them and implementation is currently weak. The mapping conducted as part of this research should be of particular interest to these countries as they further develop their LCFs.

Local Content Outcomes

Once local content frameworks were analysed and scored, data was gathered on selected indicators from published works, enterprise centre databases, NOC databases and IOC Corporate Social Responsibility Reports. This information is considered a proxy to observe outcomes of existing LCFs in each country. A detailed explanation of these indicators is provided in Annex 4.

Since data on these indicators was not always available in all countries, making comparisons between them represented a challenge. To resolve this issue, complementary literature and secondary sources were used to obtain a better sense of LCF outcomes. Based on this evidence, countries were scored between 0.5 (low) and 1.5 (high) according to the criteria set out in Annex 4. . A score of [-] indicates lack of information. The complete scores are determined using data from Annexes 5, 6 and 7 and results are summarised in Table 4 below.

Table 4: Local Content Frameworks – Outcomes Scoring

Country	National Industry Participation	Local Employment	Skills Development	Average
Angola	1	1	1	1
Chad	0.8	0.9	1	0.9
Nigeria	1	1	1	1
Ghana	1	0.5	0.5	0.7
Equatorial Guinea	1	0.5	0.5	0.7
Tanzania	0.5	0.5	0.5	0.5
Uganda	0.5	0.5	0.5	0.5

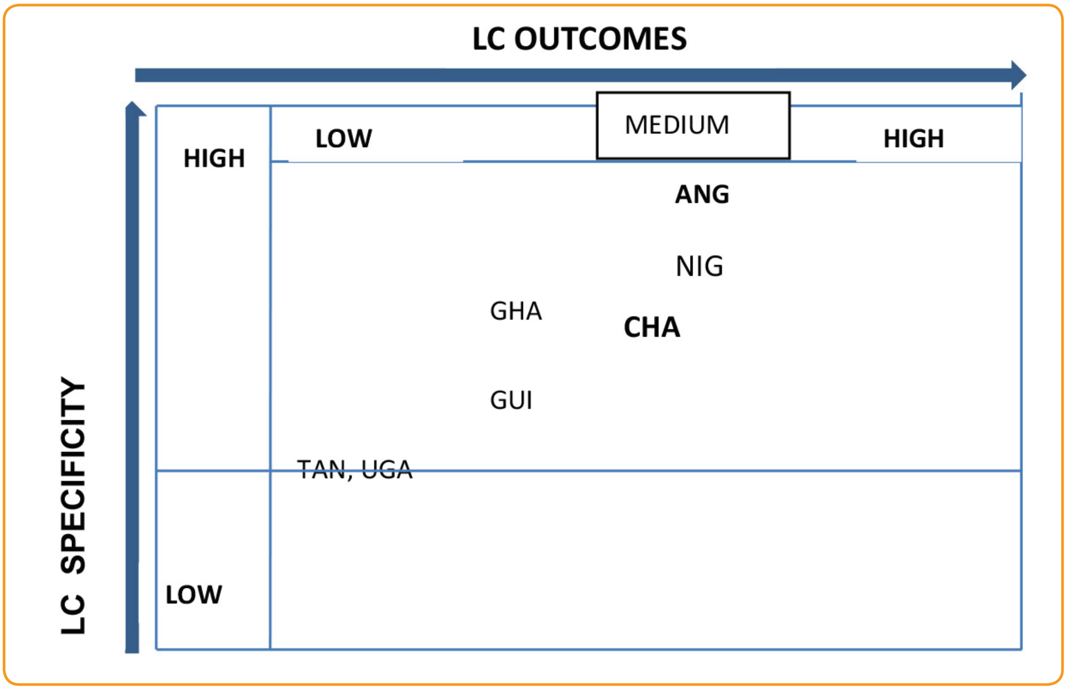
Source: Author's own elaboration

Based on the scores for specificity and outcomes, a 2x2 matrix was developed and is presented in Figure 3 below. This 2x2 diagram enables us to categorise the relationship between specificity and outcomes in all seven African countries as follows:

- More specific frameworks – Medium outcomes (Angola and Nigeria)
- More specific frameworks – Low outcomes (Ghana)
- Less specific framework – Medium outcomes (Chad)
- Less specific frameworks - Low outcomes (Equatorial Guinea, Tanzania and Uganda)

Chad and Angola were selected for further analysis because although their LCFs differ in terms of specificity both countries have achieved similar outcomes in terms of national industry participation, local employment and skills development. Angola was selected over Nigeria because it has implemented its LCF over a longer period of time. As for Chad, it was felt that although the country has no specific local content policies or legislation, it has developed model production sharing contracts and thus provides a good contrast with Angola. The purpose of the case study analysis, therefore, is to explain what additional factors could have played a role in bringing about relatively similar outcomes.

Figure 3: Correlation Between LCF Specificity and Outcomes (B)



Source: Author's own elaboration

Case Studies

The purpose of this section is to analyse in detail the local content outcomes in Angola and Chad and identify which factors helped achieve these results. It begins by providing a brief political history of both countries before analysing their business environments and fiscal regimes. Finally, we explore the role of major international actors and other processes that contributed to shaping the nature of the outcomes.

Angola

Before independence Angola had a relatively diversified economy with strong agricultural and manufacturing sectors. Shortly after independence in 1975, however, the country entered into civil war which led to massive displacement of people and destruction of the country's infrastructure and human capital.The NOC Sonangol held exclusive concessionaire rights to Angola's petroleum resources and was mandated to carry out regulatory and operational activities (Ramos, 2011). At that time, however, Sonangol could not do much with the local content agenda because, according to Tordo & Anouti (2013:14), the NOC appeared to be operating in relative isolation amongst other weak government institutions.

Subsequently, Angola gradually increased its economic reliance on oil and gas with the sector contributing around 46 percent of GDP in 2012 up from about 43 percent the previous year (World Bank 2013:1) Because of high oil prices in the recent past, Angola's GDP and per capita income have continued to grow. The country is the second largest economy among the Southern Africa Development Community (SADC) countries. This performance, according to observers, is mixed with high inequality in income distribution and poverty levels. In 2010, the country's GINI Index was 58.6 and 54.3 percent of the population lived on less than $1.25 per day (UNDP, 2010). In spite of this negative picture, the end of civil war and the desire to exploit opportunities in the extractive industry has brought about remarkable growth in the economy. This begs the question whether the adoption of a local content framework and an enabling business environment are responsible for attracting investments into the extractive sector and strengthening competitvenes in the economy (Tordo & Anouti, 2013:20).

World over an enabling business environment is believed to facilitate local content. According to recent research, bureaucracy and corruption remain key issues in Angola where the centralised system suffers from low capacity and operates on regulations dating back to the colonial era (Kirk, 2011). It has been reported that it takes 68 days and up to 8 procedures across different government bodies to start a business in Angola. The World Bank ranks Angola as one of the most difficult countries in the world to do business (World Bank, 2012). In its 2011 Global Competitiveness Report, the World Economic Forum (WEF) placed Angola 139th out of 142 countries, among the bottom 10 of the list alongside seven other sub-Saharan African countries (WEF, 2011). Although some efforts have been made to improve the situation, corruption and weak governance remain major hurdles (CRES, 2008; Ramos, 2011; Tordo & Anouti, 2013).

Angola's contemporary society suffers from several structural problems including high poverty rates, inequality in income distribution, a poorly-educated labour force, as well as a lack of infrastructure, high bureaucracy and corruption (Tordo & Anouti, 2013). It is against this economic and political backdrop that Angola has been refocusing its LCF to achieve positive development outcomes using oil and gas resources. For example, the introduction of progressive taxes is intended to support local companies to compete more actively in the oil and gas sector, thereby contributing to national economic development.

One important aspect of a business environment is the fiscal regime. Adequate fiscal regimes can enhance local content outcomes and this is where Angola seems to have made positive interventions. The Petroleum Tax Law (PTL) provides the fiscal framework generally applicable to petroleum operations, while the model Production Sharing Agreement (PSA) sets out production sharing terms. Various taxes are set out in the PTL, such as the Petroleum Income Tax, the Petroleum Production Tax, the Petroleum Transaction Tax and a Training Levy, which is intended to be channelled into the Petroleum Fund for training and development of Angolan workers (Eduardo Vera-Cruz Advogados, 2013). The Presidential Legislative Decree No.32/12 of 16th March 2012 provides tax incentives to private and public Angolan companies in order to boost their competitiveness to participate in the oil and gas sector (Ramos, 2011:7; Miranda Alliance, 2012). The fiscal regime has therefore shaped the implementation of local content provisions and contributed to observable outcomes.

International Oil Companies (IOCs) have been instrumental in implementation of the Angolan LCF. Sonangol and IOCs including British Petroleum, Chevron, ExxonMobil and Total established the Business Support Centre (Centro de Apio Empresarial - CAE) to support local enterprise development. The IOCs provided the capital and market demand while the international NGO Development Solutions (CDC) was contracted to run the centre. The CAE has made a significant contribution to the realisation of local content outcomes, which we discuss, below and present in greater detail in Annexes 6 and 7.

Similarly, in 2002, Chevron pioneered the formation of the Angola Enterprise Program (AEP) alongside the Spanish International Cooperation Agency for Development (AECID) with the aim of developing the capacity of local SMEs and creating business environment that could provide reliable and quality products and services. The AEP has an annual budget of USD$4 million and was implemented with the involvement of a number of development agencies and governmental institutions between 2004 and 2007.

LCF Outcomes in Angola

It is very difficult to measure the success of Angola's LCF in retaining capital, adding value and creating jobs due to a lack of openness and the inadequacy of monitoring and evaluation mechanisms in practice (Ovadia, 2014). Nevertheless, some results and outcomes are observable including the establishment and operationalisation of the CAE and manufacturing enterprises (factories) by the NOC Sonangol.

Sonangol Industrial Investments (SIIND), a subsidiary of the NOC, coordinated the establishment of 73 factories in the Viana Special Economic Zone, investing USD$50 million in the first eight factories which opened in 2011. Six more factories were opened in the summer of 2012 at a cost of USD$78 million and all the factories are producing goods for the oil industry including fibre optic, low and high voltage cables, paints and varnishes, plastics, pipes, electrical equipment, irrigation materials, fittings, fencing and wire, hardware, pumps and plastic bags (Ovadia, 2014:142).

In terms of national industry participation, Teka (2012) found that linkages in both upstream and downstream segments of the oil and gas industry are predominantly reflected in domestic ownership rather than in domestic value added. However, backward and forward linkages have been developed in the Subsea Umbilicals, Risers and Flowlines (SURF) sub-sector, albeit with low levels of value added. The findings from Teka (2012:467) on linkages to manufacturing in the oil and gas sector revealed that there is real potential for the expansion and deepening of backward linkages in the SURF sub-sector and in other parts of the oil field services sector. Teka further argues that there is, *"A realistic and strategic potential for industrial development, this is possible if the factors that currently constrain expansion and deepening of linkages are addressed".* In other words, impressive frameworks are not enough and must be accompanied by effective implementation within a favourable business environment.

As for employment, the CAE has shown promising results. More than 1,500 Angolan-owned businesses participated in the CAE programme through training and technical assistance, 124 companies were certified as suppliers for the oil industry and some 300 contracts and contract extensions resulted from CAE involvement. In total, CAE generated more than USD$214 million in oil industry contracts and supported the creation of more than 2,700 Angolan jobs[4] (CAE, 2010).

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[4] CAE's webpage 'Building Relationships Between Angolan SMEs and the Oil and Gas Industry', accessed April 2015.

Skills development is another area where Angola has made modest achievements. Some SMEs trained by the CAE have grown into larger-scale operations to meet oil industry needs, such as NASA Commercial Import and Export Ltd, Luafanda Reparacoes (LDA) and Angolan plumbing and electrical SMEs. Chevron-funded programmes have provided technical assistance to more than 3,000 farmers through the creation of around three dozen associations through the Angola Partnership (Initiative and has also helped create the Novo Banco, a thriving micro and small-business finance institution (Levett & Chandler, 2012:10-11).

In spite of shortcomings in the implementation of the LCF, particularly a lack of monitoring, evaluation and measurement of outcomes and a poor business environment, Angola has made reasonable achievements (with an average score of 1.0) in national industry participation, local employment and skills development. Tax incentives, the establishment of manufacturing enterprises, the CAE and other training programmes have all contributed to this success. Notwithstanding, there is potential for greater achievements in the area of national industry participation (NIP). If Angola prioritises NIP to increase the participation of local companies in the supply of goods and services it is likely that local workers will develop more skills and more jobs will be created in the economy (Teka, 2012).

Chad

Chad attained independence in 1960 from France which had colonised and assimilated the country as part of French Equatorial Africa. In 1965, Chad entered into a prolonged civil war as a result of northern groups opposing the policies of the post-election leader Francois Tombalbaye. In 1979, rebels with linkages to the northern part of the country captured power. The situation changed in the late 1980s and early 1990s with the return of peace to the country. The rising price of oil and the USA's increasing interest in diversifying its sources of oil led to renewed interest in Chad's potential (Houdin & Gerin, 2010).

When significant oil reserves were confirmed in the Doba Basin in southern Chad in 1993, Exxon began exploring sources of financing and options for exporting the land locked Doba oil to international markets. Approaches were made to secure the World Bank Group's political support and financing from the IFC. Thus began a large-scale project to build a pipeline across Cameroon to the Atlantic coast and install an offshore terminal to export Chadian oil (Houdin & Gerin, 2010).

The political environment in Chad changed when President Deby seized power by force in 1990, presided over a constitutional assembly that included all political parties in 1994 and was elected into power in 1996 in what was, despite some serious irregularities, Chad's first pluralistic presidential election (US State Department, 2009; Houdin and Gerin, 2010:4). It was widely believed that this presented an opportunity to drive forward the development of this very poor country and to achieve international targets such as the Millennium Development Goals (MDGs), especially since Deby was prepared to accept stringent conditions on the use of oil revenues. Reasonable hope also existed that revenues from this commercial oil project could be used to further the development of Chad and the well-being of its people through investments in priority sectors. Indeed, national resolve to develop the oil and gas sector was more evident than ever before.

Consequently, the Government of Chad partnered with international financial institutions (IFIs), IOCs and civil society organisations (CSOs) to establish the Enterprise Centre for promoting skills development and participation of local companies and SMEs in the sector. The operations of this centre have been considered a success (World Bank Group, 2015a).

Like in Angola, Chad's business environment as whole has not been the most conducive for enhancing local content. Chad was ranked last place out of 183 countries in the World Bank's 2012 Doing Business Ranking, dropping by one place from 2011. Similarly, the WEF's Global Competitiveness Report 2011-2012 ranked Chad 86th out of 142 economies, mainly for 'rigidity of employment'. The time required to start a business was 66 days, compared to the sub-Saharan African average of 37 days. The government adopted a Business Empowerment Charter in 2010, which had still not been put into practice by the end of 2012.

Despite a generally poor business environment, Chad's fiscal regime has some positive aspects. For example, Chad has implemented some successful fiscal initiatives that could explain the gains in the LCF outcome variable. Under the petroleum legislation and the Model Production Sharing Contract (MPSC), the contractor must pay an annual cash royalty based on the surface area awarded to the contractor for extraction. The amount of this loyalty, which varies from exploration phase to exploitation phase, is negotitated and agreed upfront in the contract. The contractor is exempt from corporate tax with respect to the activities carried out under the contract. Exports of petroleum from Chad are not subject to any export tax or other duty and the contractor may import equipment and materials (to be used directly, solely and permanently for petroleum production) free of customs duties during the exploration phase and the five first years of exploitation (Eduardo Vera-Cruz Advogados, 2013). Alongside the activities of the Enterprise Centre, these tax incentives and local content provisions in production contracts have supported the creation of an environment in which IOCs implement initiatives that create jobs, develop skills among nationals and develop the participation of local companies and SMEs in the sector.

The World Bank has been active in Chad for over 20 years. When the idea of the Chad – Cameroon pipeline project was conceived, the World Bank Group supported it including extending credit facilities and being party to the project agreements and thus acting as 'guarantor'. The first Convention Agreement was signed in 1988 between the Republic of Chad and a consortium of oil companies consisting of Exxon (40 percent share), Shell (40 percent share) and Elf (20 percent share), with Exxon designated as the operator. In November 1999, Shell (Netherlands) and Elf (France) left the consortium and were replaced in April 2000 by Petronas and Chevron which joined ExxonMobil in the final consortium. In 2000, the World Bank signed an agreement with Chad and Esso (ExxonMobil's arm in Chad) which ensured that royalties from oil sales would pass through a transparent bank account in London and that a large proportion would be spent on development. The agreement also sought to guarantee social and environmental standards for production. The 2000 agreement was not fully implemented, however, it was amended in 2006. Chad requested that 'development projects' include national security but the World Bank decided to pull out. Subsequent negotiations later resulted into fresh terms of involvement of the World Bank and other development partners.

LCF Outcomes in Chad

Chad was the first country in Africa to embark on a large project in the oil and gas sector with multiple actors yet without a developed local content framework. Despite this, the country achieved observable outcomes (averaging 0.9, see Table 4) in terms of skills development, local employment and national industry participation, which is comparable to Angola and Nigeria (1.0 average). One factor that sets Chad apart from other African oil producers is that the country recognised that it had to accept conditions and controls over its use of oil revenues in order to attract private investors and IFIs to help develop the sector (Houdin & Gerin, 2010:6). This is why an amended Concession Agreement was signed with the consortium in 1998 and the Oil Revenue Management Law was promulgated by President Deby on 11th January 1999 to meet the requirements of the World Bank Group, which included ensuring public participation in decision making, transparency and effective environmental and social mitigation in the design and implementation of the project (Ntismi, 2011).

Although Chad did not have specific local content policy or legislation, the country was guided by its National Development Plan and Poverty Reduction Strategy Papers to focus on nurturing local employment and skills development to support the young oil and gas industry. Attracting developemnt partners, particularly the IFIs and local and international NGOs, prepared Chad to negotiate with IOCs in drafting and completing the production contracts with local content provisions in the later period.

By 2009, the Chad – Cameroon pipeline project had provided thousands of jobs in both countries. During the construction of the pipeline, the project employed 5,747 Chad nationals many of whom were unskilled labourers. In spite of lack of a local content policy and legislation, the project opened the door for many Chadians to work in the oil and gas sector which was something that had never happened before. Similarly, public expenditure of oil revenues for infrastructure, education, health and livestock production is increasing and provides employment opportunities for local people. It is these investments that will ultimately support the backward and forward linkages between the oil and gas sector with the rest of the economy. In terms of skills development, the labourers on the pipeline project received training that upgarded their skills helping prepare them for future jobs. By the end of 2009, national workers' employment skills level had shown modest progress (Ntsimi, 2011:19; World Bank Group, 2009).

Chad has also registered positive outcomes in terms of national industry participation. The establishment and development of the Enterprise Centre by the state with support of development partners was critical in terms of preparing local companies to win contracts and supply goods and services to the oil industry. For example, as of June 2009, 102 local firms were asisted in electronic bidding and 30 contracts worth over USD$56 million were awarded. Since its inception, the project has purchased goods and services from local suppliers in Chad and Cameroon totalling over USD$3 billion with Chad accounting for about two thirds (World Bank Group, 2015a:130). In 2010, management of the Enterprise Center was transferred to the Chamber of Commerce and personnel were assigned to deliver enterprise training and support services, such as electronic procument for oil companies, management training, business planning and access to finance (World Bank, 2015:130).

Based on analysis of the two case studies, two main factors can be identified as having shaped the outcomes of local content frameworks in Angola and Chad. First, prioritising local content as an integrated component of national development seems to have driven forward the operationalisation of LCFs in Angola and Chad. The vision a country has about its oil and gas sector can increase its resolve to prioritise local content policies and, in turn, influence outcomes in the short and long run. In the case of Angola, Vision 2025 emphasises work, entrepreneuship and savings. Likewise, the National Development Plan (2010-2011) and the ruling party, MPLA's, election programme 2009 – 2012 both emphasised the importance of building and training human resources and promoting local employment and skills development in particular. Similarly, Chad's 2010 Poverty Reduction Strategy Paper and its National Development Plan (2013 -2015) both provide for promotion of employment to reduce poverty and contain job creation strategies. Above all, national resolve was demonstrated when the Chadian and Cameroonian governments pioneered a collaborative effort with the World Bank, IFC and a consortium of IOCs to construct the Chad- Cameroon pipeline, the first of its kind in Africa, despite a lack of institutional capacity, in particular relating to local content. Perceived as an attempt to establish a model for natural resource development in Africa, the project accelerated the drafting and approval of secondary legislation on environment and oil revenue management, as well as the establishment of the Chad Enterprise Centre and, later on, model production contracts containing specific local content provisions. These existing legal provisions provide the foundations for future development of a more specific LCF for Chad.

The second key factor that shaped LCF outcomes in Angola and Chad is the business environment, particularly the fiscal regime. Incentives for private companies to invest can determine the ability of local enterprises to participate and compete in the oil and gas sector. Indeed, both Angola and Chad have adopted tax incentives which might explain why, despite poor business environments as whole, local companies have been attracted to invest in the sector, thereby increasing national industry participation, creating jobs and opportunities for skills development. In the case of Angola where manufacturing is taking centre stage in national industry participation, opportunities for more skills development and job creation will be considerably enhanced.

6.0 Discussion of Findings

Local content in African oil and gas producing countries has been accepted and adopted with high expectations. In those countries where the LCF is more specific, such as Angola, Nigeria and Ghana, citizens and local companies are calling for better implementation and strategic prioritisation (Ovadia, 2012; Balouga, 2012; Amoako et Al., 2015) In other countries still developing their LCFs, such as Equatorial Guinea, Tanzania and Uganda, the drive for local participation in the oil and gas industry and establishment of linkages to other sectors in the economy is observable from the general policies and legislations already adopted (see Annex 7).

In broader terms, African countries have adopted various strategies to promote local employment, skills development and national industrial participation in the oil and gas sector. In the seven countries studied as part of this research, local employment and skills development tend to be the most prominent local content strategies pursued. African countries are under pressure from young people seeking employment, yet there are insufficient jobs paying the minimum wage, leading to involuntary unemployment. It is therefore understandable that African countries seek short-term strategies to respond to this challenge. This is why a country like Nigeria emphasises local employment in its LCF. The Nigerian Local Content Act, for example, stipulates that 70 percent of the oil and gas contracts should be awarded to Nigerian firms to guarantee their survival and generate returns in a sector hitherto dominated by foreign companies. The research findings also reveal that initiatives to promote national manufacturing capacity, such as those implemented in Angola, Ghana and Nigeria are likely to provide more positive outcomes in terms of skills development and local employment. In Angola for example, the government reduced the cost of production in order to encourage the establishment of new factories and to increase production of oil and gas. In cooperation with the Norwegian RKK Centre for Vocational and Professional Training and the Stavanger Offshore Technical College (SOTC), the government established the National Petroleum Institute to provide skills development for Angolan employees working in the oil and gas industry. Similarly, in Nigeria, it was reported in 2012 that, *"Over five hundred million dollars of direct investment in the area of manufacturing of equipment components for the oil and gas industry was attracted in the country as a direct result of Local Content Act implementation to the benefit of the economy"* (Egwuonwu, 2015).

In the implementation of LCF in Africa's oil and gas producing countries, two institutions were found to be critical – the NOC and the enterprise centre. In countries where the NOC is active (Angola, Nigeria, Ghana) local content frameworks have been operationalised to a fair degree. It is therefore important for other African countries to study the role of the NOC as a key institution for shaping the policies and practices of the oil and gas sector and to consider the establishment and operationalisation of such an institution as part of oil and gas sector development.

The establishment of an enterprise centre by the state with support of development partners, IFIs, CSOs and NGOs was also found to be critical in the implementation and outcomes of LCFs. In Angola, Nigeria and Chad, enterprise centres increased the participation of SMEs in the oil and gas sector, trained and equipped national workers and firms in the areas of procurement and supplies and provided assistance during contracting processes. In Angola, the CAE programme for building enterprises has strengthened the national supply chain network and improved the ability of Angolan enterprises to supply the IOCs. What is more, some of the medium enterprises trained by the CAE have grown into larger scale operations to meet oil industry needs. These experiences point to the important role an enterprise centre can play in realising the outcomes of LCFs in relation to skills development and national industry participation. In this regard, the proposed establishment of an industry enhancement centre in Uganda would appear to be a positive move (World Bank Group, 2015).

This study was based on the hypothesis that more specific local content frameworks lead to better outcomes in terms of local employment, skills development and national industry participation. The evidence gathered shows that this is largely true with Angola and Nigeria showing better outcomes than Equatorial Guinea, Tanzania and Uganda. The only exceptions are Ghana and Chad. Despite having developed a specific LCF, Ghana has only achieved low outcomes to date. However, this may be because the country has had little time to implement local content provisions and assess impact. As for Chad, the explanation is different. Although the country lacks specific local content legislation and policy, it was guided by general policy frameworks (NDP, PRSPs etc.) which commit the country to developing the oil and gas sector with linkages to other sectors of the economy. Subsequently, the country adopted model production contracts in 2011 with progressive provisions on local content. Furthermore, the Chad Enterprise Centre proved to be an effective agency through which to implement the local content agenda, producing modest outcomes in skills development, local employment and national industry participation in comparison to Angola and Nigeria. A key lesson for other African countries still in the process of developing their LCFs is to focus on establishing specific legislations, policy and contracts based on a clear vision of how the gas and oil sector can contribute to national development goals.

Our exercise to correlate LCF specificity and outcomes revealed that some countries with different LCF specificity had registered comparable outcomes, such as in the case of Angola and Nigeria (more specific) compared to Chad (less specific). By studing Angola and Chad in more detail, it was established that in both countries a relatively favourable fiscal regime facilitated participation of local companies in the oil and gas sector despite a generally poor business environment. Similarly, national committment to developing the sector through backward and forward linkages appears to have contributed to outcomes in terms of local employment and national industry participation. While efforts in Angola focused on specific policies, legislations and supporting institutions, Chad established an enterprise centre that became a nucleus of local content adoption and implementation.

7.0 Conclusion and Recommendations

This paper explored the development of local content frameworks and their outcomes in selected African countries. In order to provide more in-depth analysis, two case studies were compared by examining differences and similarities in terms of LCF specificities and their outcomes with the aim of identifying additional factors that contributed to shaping outcomes. This approach provides a first step towards mapping and analysing African local content frameworks and their outcomes.

The purpose of the research was to generate knowledge on various LCFs in Africa and produce a regional catalogue that policy makers and practitioners would find useful for understanding different LCF models, the outcomes they have achieved and additional factors that may influence success. It is expected that these insights will be particularly valuable to African countries in the early stages of developing their LCFs.

Several lessons arise out of this analysis. First, the successful formulation and implementation of LCFs depends on the ability of various stakeholders to work together and contribute different perspectives, skills and resources that aid successful formulation and implementation. Based on the experiences of seven African countries, key stakeholders can be identified as the government, private sector, CSOs/NGOs, IOCs, development agencies, international financial institutions and the communities where the resource is extracted.

For countries that are still developing their LCFs it is also important to analyse the business environment and fiscal regime, both of which are critical in building confidence among both local and international investors to participate in the oil and gas and other related sectors. Uganda will find this research particularly valuable given that it is in the process of adopting local content policy and is yet to make specific legislations or revise model production sharing contracts. Other countries in the region in a similar situation will also find this research valuable to inform national processes relating to local content development.

For local content to succeed as a viable development tool, the choice of strategy - local employment, skills development or national industry participation - will be critical to African countries. This research found that countries that have promoted national manufacturing as part of their strategy to increase national industry participation are more likely to achieve positive outcomes in terms of skills development and job creation. It is therefore reasonable to conclude that countries interested in promoting national development through non-renewable resource exploitation should prioritise investments and establishment of key institititions (such as NOCs and Enterprise Centres) that increase national industry participation.

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ANNEXES

ANNEX 1 REGIONAL CATALOGUE OF LOCAL CONTENT FRAMEWORKS IN AFRICA

ANGOLA		Policies	Legislation	Contracts
Local Employment	General	The Angola National Development Plan contains general provisions regarding employment. Vision 2025 contains objectives related to value work, entrepreneurship and savings.	National Constitution, Article 76(1) states that work is the right and duty of all. Labour Law (Law No. 2/00) provides significant protection and benefits to workers including the right to strike and bargain collectively.	Contractor groups to comply with decree No. 20/82 of 17th April 1992 and ancillary regulations as well as applicable regulations Regarding the recruitment, intergration and Training of Angolan personel (Risk services agreement between Sonangol and CIE Angola Block 9 LTD and others of 2010, and VAALCO Angola (Kwanza) INC of 2006). Mandatory hiring and training of Angolan citizens in accordance with decree 20/82 and law 17/9.
	Sector Specific (related to the oil and gas sector)	Policy objectives defined by the National Assembly 2003 include Angolanisation of the workforce and the requirement that companies should have a workforce consisting of at least 70 percent Angolan nationals (Tordo & Anouti, 2013). Established Centro de Apoio Empresarial (CAE) to run job creation programmes.	Decree 20/82 of 1982 laid the foundation for local content in Angola's oil and gas workforce. Policy instruments outlined by the decree cover the recruitment, training and career progression of the local force. Key legislation governing the oil and gas sector includes the Petroleum Activities Law 2004 (PAL) and the Petroleum Taxation Law 2004 (PTL). Decree 13/10 grants protection to national workers against discriminatory recruitment and remuneration practices.	The model Petroleum Sharing Agreement (PSA) sets out production sharing terms. Specific Article (35) outlines the mode of recruitment, integration and training of Angolan personnel.

ANGOLA		Policies	Legislation	Contracts
Skills Development	General	The National Plan 2010 -2011 states that the government is responsible for stimulating the domestic private sector and national entrepreneurs. The Angolan Popular Liberation Movement's election programme for 2009-2012 emphasised its commitment to building and training human resources.	Art. 76(2) of the Angolan Constitution states that every worker shall have the right to vocational training, fair pay, rest days, holidays, protection, workplace health and safety in accordance with the law.	Contractor groups to train all the Angolan personel directly / indirectly involved in petroleum corporation with the purpose of improving their knowledge and professional qualifications in order that the Angolan Personel gradually reach the level of knowledge and professional qualification held by contractor groups' foreign workers. Risk services agreement between Sonangol and CIE Angola Block 9 LTD and others of 2010, and VAALCO Angola (Kwanza) INC of 2006.
	Sector Specific	Established the CAE to providetechnical training and assistance	The PAL and the PTL mandates the provision of capacity building programmes by operating companies. Companies must develop annual training plans and obtain approval from the Ministry of Petroleum before implementation.	PSAs set outspecific requirements in terms of level and area of training for Angolan workers, and extends training requirements to subcontractors providing services to the contractor for more than one year.

ANGOLA		Policies	Legislation	Contracts
National Industry Participation	General	The National Plan 2010-2011 includes the objectives to foster industrial production to accelerate import substitution and stimulate the domestic private sector and national entrepreneurs.	Article 92 of the National Constitution– the State guarantees the coexistence of the public, private and cooperative sectors in accordance with Law, 92 (2) the State recognises and protects the right of rural communities to use and benefit from the means of production.	Oil companies are expected to source certain products and services exclusively from Angolan companies meaning companies with majority Angolan ownership. Sonangol and its associates are required to acquire equipment, machinery and consumer goods of national production where appropriate (Risk services agreement between Sonangol and CIE Angola Block 9 LTD and othersof 2010, PSA between Sonangol and VAALCO angola (Kwanza) INC of 2006).
	Sector Specific	Second major objective of local content policy is domestic sourcing of goods and services. Tax incentives for Angolan oil exploration and production companies. Regulations requiring the use of Angolan banks and local currency Promotion of investments in manufacturing and oil services through a subsidiary of the NOC Sonangol, theSonangol Industrial Investments (SIIND).	PAL and PTL Secondary Legislation for local content in procument is Ministerial Order No. 127/03 on contracting of services and goods from Angolan companies by petroleum Industry companies. Angola uses 10 percent as the margin of preference to domestic suppliers.	Article 16 of Decree 48/06 sets out different procedures on the procument of goods and services depending on the value or amount of the contract. Articles on petroleum operations detail involvement of local contractors, subcontractors and procument of goods and services within Angola

CHAD		Policies	Legislation	Contracts
Local Employment	General	The National Development Plan (NDP) contains general provisions regarding employment and national priorities regarding employment. 2010 Chad Poverty Reduction Strategy Paper and the NDP 2013 -2015 provide for promotion of employment to reduce poverty.	Several laws have opened the door for local content provisions to be included in contracts. These include: The National Assembly adopted an Oil Revenue Management Law (Law 001/PR/99) The National Assembly adopted Law 002/PR/06 which modified the regime established by Law 001/PR/99. Ordinance No. 001/PR/2010 approves a model Production Sharing Contract (PSC) regulating the activities of exploration and production of liquid and gaseous hydrocarbons. Decree No. 796/PR/PM/MPE/2010 implementing the Petroleum Law. Constituition of Chad article 31/32 recognises right to access of public employment and right to work.	Production Sharing Contract (30 June 2011) between the Republic of Chad and The ERHC ENERGY (BVI) LTD COMPANY incorporated under U.S law and headquartered in Houston Texas. Only the amendments to the PSC exist. The contract sets out commitments for personel and training by international oil companies, employment of Chadian people is recognised as key in the development of oil and gas sector.
	Sector Specific	No local employment policies in the oil and gas sector	The Petroleum Law and the model PSC include local content requirements relating to employment.	The contractor must prioritise the recruitment of qualified Chadian employees over qualified foreign employees. The contractor submits an annual work plan with a programme and budget for recruiting Chadian personnel. For example, the contract between Petro Chad and SPIE Oil and Gas Services includes provisions for pre-conditioning, commissioning and training of local personel (37 expatriates and 53 Chadian).

CHAD		Policies	Legislation	Contracts
Skills Development	General	The NDP provides for development of human resources through education.	The National Assembly adopted an Oil Revenue Management Law (Law 001/PR/99) and then Law 002/PR/06 which modified this. These laws opened the doors for the subsequent legislations to be made in the oil and gas sector	
	Sector Specific	No policies relating to skills development in the oil and gast sector.	Ordinance No. 001/PR/2010 approves a model production sharing contract regulating the exploration and production of liquid and gaseous hydrocarbons. Decree No. 796/PR/PM/MPE/2010 implementing the Petroleum Law. The petroleum legislation and the model production sharing contract include local content requirements relating to training of Chadian people as a key element of skills development in the oil and gas sector.	The contractor must submit an annual work plan and budget with a training programme for Chadian personnel so that they may access any position from qualified worker to executive and director. The contractor must also submit a report describing the nature and costs of actual training provided to Chadian employees.
National Industry Participation	General	Industrial promotion policy focuses on the following major economic activities: agriculture and livestock, construction, and oil-industry infrastructure including pipelines.	The Constitution of Chad provides a framework on how the state is responsible for natural resources. Every citizen has the right to participate in protecting and exploiting natural resources in accordance with the law. Private property is involiable and sacred (article 41/52/57of the constitution). The Constitution also encourages private sector exploration and exploitation of natural resources where the State grants this right.	No provisions relating to national industry participation
	Sector Specific	In the absence of specific local content policies, foreign firms operating in Chad acknowledge Corporate Social Responsibility (CSR), particularly those in the petroleum and telecommunications sector. This includes commitments to purchase local goods and donate excess equipment to charities or local governments. The International Finance Corporation (IFC) partnered with an oil industry consortium, sub-contractors, international NGOs and Chad's Chamber of Commerce to support local SMEs and build linkages between the oil industry consortium and local suppliers.	The petroleum legislation and the model PSC include local content requirements relating to procurement through which improves opportunities for local companies to compete to supply goods and services to the oil and gas industry. Several laws open the door for local companies to participate in the sector, including: Chad's Oil Revenue Management Law as adopted by the National Assembly in January 1999 (Law 001/PR/99). In December 2005 the National Assembly adopted Law 002/PR/06 which modified the regime established by Law 001/PR/99. Ordinance No. 001/PR/2010 approving a model production sharing contract regulating the activities of exploration and production of liquid and gaseous hydrocarbons. Decree No. 796/PR/PM/MPE/2010 implementing the Petroleum Law.	Petroleum contracts have been negotiated and signed on the basis of model production sharing contracts which state that a foreign petroleum company must incorporate a national Chadian company. The contractor and its sub-contractors must give priority to Chadian companies for construction and services contracts, subject to equivalence of conditions in respect of quality, price, quantity, timing for delivery, payment conditions, offered guarantees and after-sales service.

NIGERIA		Policies	Legislation	Contracts
Local Employment	General	The National Development Plan contains general provisions and national priorities regarding employment.	Labour Act CAP 198 Law of the Federation of Nigeria 1980 provides for protecting of wages, contracts of employment and terms and conditions of employment. According to the Nigerian Content Law, contracts with a total budget exceeding USD$100 million must contain a clause mandating the use of a minimum percentage of Nigerian labour.	Contractors must submit annual work plans with details of the number of local employees and contract personnel required for approval by the operating committee.
	Sector Specific	Local content objectives include employment generation for all categories of Nigerians/actors.	The Petroleum Act Cap P10 LFN 2004, the Nigerian Petroleum Corporation Act and the Nigerian Oil and Gas Industry Content Development Act 2010 (the NCDA). These laws state that training programmes must be included in every project and that Nigerians are to be considerd first for employment in any project.	Specific provisions regarding local employment include quotas and monitoring mechanisms, for example. 95% of Nigerian technical workers must be hired.
Skills Development	General	No skills development policy	According to the Nigerian Local Content Act, Nigerians are to be considered first for training in any project.	Contractors must submit a detailed programme for training Nigerians. Costs and expenses incurred in relation to job training and work placements should be covered by development or production costs.
	Sector Specific	Local content objectives promote technological transfer. The Petroleum Technology Fund (PTDF) finances the Overseas Scholarship Scheme (OSS) and the Local Scholarship Scheme (LSS). Public-private partnerships policy promotes training of Nigerians in various fields.	Petroleum Act Cap P10 LFN 2004, the Nigerian Petroleum Corporation Act and the Nigerian Oil and Gas Industry Content Development Act 2010 (the NCDA). These laws provide for skills development of skills. Where Nigerians cannot be employed due to a lack of training, these laws requires that reseasonable effort be made to provide such training within or outside Nigeria.	No skills development provisions.

NIGERIA		Policies	Legislation	Contracts
National Industry Participation	General	The 2000 Small and Medium Industries Investment Scheme (SMIEIS) policy promotes manufacturing.	The Nigerian Content Law focuses on promotion of value addition in Nigeria through use of local materials, products and services in order to stimulate growth of national capacity. The Nigerian Oil and Gas Industry Content Development Act 2010 requires that every bid for any license, permit or interest in the oil and gas industry must contain provisions to ensure that first consideration is given to independent Nigerian operators, employees, goods and services.	A list of contractors and sub-contractors must be submitted to the Project Management Team annually for approval.
	Sector Specific	Local content objectives include expansion of the upstream sectors of the oil and gas industry; diversification of sources of investment into the sector such that some of the funds begin to come from local sources; and the integration of the oil and gas industry into the mainstream economy.	Petroleum Act Cap P10 LFN 2004, the Nigerian Petroleum Corporation Act, and the Nigerian Oil and Gas Industry Content Development Act 2010 (the NCDA) all state that independent Nigerian operators shall be given first consideration in the award of licenses in all projects. Likewise, first consideration is to be given to services provided by Nigerians and to goods manufactured in Nigeria. NCDA mandates the National Content Development and Monitoring Board to collect 1 percent of every contract awarded in the upstream sector to put towards the National Content Development Fund (NCDF) to create credit facilities, address capacity building issues, promote human capital development, execute infrastructure projects and provide tax incentives to local companies. The Fund is expected to address the challenge of access to credit for national companies (Ovadia, 2014).	International companies operating as Nigerian registered companies must demonstrate that a minimum of 50 percent of the equipment deployed is owned by Nigerian companies.

TANZANIA		Policies	Legislation	Contracts
Local Employment	General	The National Development Plan (NDP) contains provisions for employment creation, youth projects and programmes, enterprise mentorship, business support services, formation of youth cooperatives and joint ventures.	The Labour Code contains provisions that regulate the entire employment sector, including the requirement that 80% of local citizens be hired in private companies. This means that employment of Tanzanians in the entire economy is a priority.	Articles 20 and 21 of the Model Production Sharing Agreements (MPSA) 2013 contain local employment requirements. MPSA are the basis for individual contracts (PSAs) signed between the operators and the government/TPDC. MPSA between the Government of Tanzania, TPDC and others provide for employment of Tanzania nationals in order to give effect to the law and ensure that opportunities are given to Tanzanians.
	Sector Specific.	The 2014 first draft of the local content policy for the oil and gas industry states that Tanzania should generate and promote an adequate supply of local work force with the necessary knowledge and skills.	Petroleum Act 1980 states that the sector must employ Tanzanian citizens with appropriate qualifications to the greatest extent possible. The Labour Code does not include sector specific provisions.	No local employment provisions.
Skills Development	General	The NDP contains provisions for the development of a highly skilled work force to help the country reach middle income country status.	The Vocational Education and Training Act Chapter 82 of the laws of Tanzania. The Act has provisions for the regulation of the training of apprentices and other persons in industry.	MPSA states that the contractor shall ensure that unskilled positions are reserved exclusively for Tanzanians. National employees are expected to acquire technology and business expertise in all activities of petroleum operations ranging from fabrication, to business suport services, financing and trading. MPSA provides that contractor shall ensure the transfer of management and operation functions to Tanzanians within a period not exceeding five years from the commcement of commercial operations.
	Sector Specific	The first draft of the local content policy contains provisions for local workforce development through training.	Petroleum Act 1980 – Oil companies must propose and carry out an effective training and employment programme for Tanzanian employees in each phase and level of operations. Detailed plan and program for Tanzania Recuirement, employment and training including post gradiuate training and scholarship	The 2013 MPSA requires the contractor to prepare an annual local content plan together with annual work programme a plan for transfer of skills, knowledge, capacity and know how.

TANZANIA		Policies	Legislation	Contracts
National Industry Participation	General	The NDP contains provisions for developing the manufacturing sector and for creating a Special Economic Zone (SEZ) and Export Processing Zone (EPZ) to boost sector development and investments.	There are plans to strengthen the legal frameworks by way of ammending existing laws to generally acceptable international standards (Kapinga & Thomas, 2013).	MPSA states that operators shall, as far as practicable, use goods and services provided in Tanzania by Tanzanian owned business. The MPSA also provides that a contractor shall purchase Tanzanian goods, services and materials provided such goods and materials are of satisfactory standard and quality in accordance with Tanzania law.
	Sector Specific	Local content policy promotes the creation of market opportunities for local goods and services through procurement processes. Local content policy also aims to increase local capacity to weld, fabricate, manufacture gadgets and provide equipment, services and maintenance for oil and gas installations. Finally, the policy promotes investments to develop local supplies and services.	The Petroleum Act 1980 gives preference to the purchase of Tanzanian goods, services and materials. In addition the Act aims to ensure that sub-contractors match the capability of local enterprises and manage risk to allow their participation. The Act states that equal treatment must be given to local enterprises by ensuring access to all tender invitations and by including high weighting on local value-added in tender evaluation criteria.	

UGANDA		Policies	Legislation	Contracts
Local Employment	General	Vision 2040 – Employment is to be created in the secondary and tertiary industries. The National Development Plan 2015/16 – 2019/20 provides for strengthening Uganda's competitiveness for sustainable wealth creation, employment and inclusive growth.	The 2006 Employment Act consolidates the laws governing individual employment relationships and other connected matters e.g. wages, rights and duties in employment, remedies and jurisdiction.	Contracts contain general provisions regarding local employment that do not entail specific regulations such as percentages, for example contractors must hire local employees according to the law. The MPSA provides that contractors must employ suitably qualified Ugandans following commencement of production.
	Sector Specific	The process of developing local content policy for the petroleum sector is on- going. The National Oil and Gas Policy (NOGP) was approved in 2008 and provides for employment of suitably qualified Ugandans.	The Petroleum (Exploration, Development and Production) Act 2013 Articles 125-127 and the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act – Articles 53-55 establish a similar set of requirements for provision of goods and services by Ugandan entrepreneurs, training and employment of Ugandans and technology transfer.	Signed contracts are not available in the public domain.
Skills Development	General	Vision 2040 states that the government is to transform the human resource and build a critical mass of scientists, engineers and technicians in the oil and gas sector. The plan also states that programmes must be developed to train highly specialised personnel in oil and gas areas of geoscience and engineering in other international institutions.	The Education (pre-primary and post-primary) Act 2008 defines the roles of various stakeholders in education and training and outlines principles on the provision of education and training. Universities and Other Tertiary Institutions Act 2001 promote skills development through regulating and guiding the establishment and management of those institutions. The Business, Technical, Vocational Education and Training Act 2008 aims to reform vocational education and skills development, making it more employment – oriented.	2006 MPSA - Contractors must undertake the schooling and training of Ugandans for staff positions including administrative and executive management positions and provide grants to train government officials on matters related to the management and oversight of the petroleum sector.
	Sector Specific	The NOGP provides for support to the development and maintenance of national expertise.	The Petroleum (Exploration, Development and Production) Act 2013 - Articles 125-127 and the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act 2013 – Articles 53-55 establish a similar set of requirements for provision of goods and services by Ugandan entrepreneurs, training and employment of Ugandans and technology transfer.	Signed contracts are not available in the public domain.

UGANDA		Policies	Legislation	Contracts
National Industry Participation	General	Vision 2040 states that the government is to support citizenry to take up opportunities through enterprise development, strengthening the private sector associated with oil and gas industry, capacity building and establishment of local area development plans The NDP envisages that the government will develop and strengthen the capacity of the Petroleum Directorate, the Petroleum Authority, the National Oil Company and related institutions to effectively monitor operations and participation of citizenry.	Industrial Property Act 2014 – Has provisions for enforcement of industrial property and related laws, industrial designs, industrial property, patents (inventions), Utility Models.	The 2006 MPSA states that contractors must maximize use of local goods and services where available on a competitive basis, implement tender procedures that give an adequate opportunity for local suppliers to compete and report progress in respect of using Ugandan goods and services.
	Sector Specific	The NOGP includes a privision for ensuring optimum national participation in oil and gas activities.	Article 125 of the Petroleum Exploration, Development and Production Act (PEDP) specifies that oil companies, their contractors and sub-contractors shall give preference to goods which are produced or available in Uganda and services which are rendered by Ugandan citizens and companies. Where the goods and services required by the contractor or licensee are not available in Uganda, they shall be provided by a company which has entered into a joint venture with a Ugandan company provided that the Ugandan company has a share capital of at least forty eight percent in the joint venture.	Signed contracts are not available in the public domain.

GHANA		Policies	Legislation	Contracts
Local Employment	General	Chapter Seven of the Ghana Medium Term National Development Plan provides for employment for poverty reduction and social protection.	Section 24 of the Constitution of Ghana lays down economic rights, including the right to work under satisfactory, safe and healthy conditions and to receive equal pay for equal work. Provision set out in the Ghana Labour Act No 651 of 2003 include establishment of public and private employment centres, protection of the employment relationship and general conditions of employment. The 1998 Children's Act No. 560 defines a child as a person below the age of eighteen years. Sections 12 and 87 prohibit engaging a child in exploitative labour, defined as labour depriving the child of its health, education or development. Section 91 of that text defines hazardous work.	The 2013 MPSA stipulates that all companies must employ Ghanaians with requiste expertise or qualifications at all levels.
	Sector Specific	Section 5.4 of the local content policy requires that as many opportunities as possible are created for the employment of Ghanaians with the requisite expertise or qualifications various levels of operation.	The Petroleum (Exploration and Production) Law 1984 signaled local content expectations. 2013 local content legislation provides for local employment, namely that Ghanians shall form 50 percent of management staff initially, increasing to 80 percent after five years. Similarly, Ghanaians must form 30 percent of technical staff initially, increasing to 80 percent after five years and 90 percent after ten years. Finally, Ghanaians must form 100 percent of other staff. -	Article 21 of the model PSA provides for local employment. Where qualified Ghanaian personnel are available contractors should ensure that they are given the work opportunity. The PSA also requires that the contractor submits a plan to the Ghana National Petroleum Corporation (GNPC) with the number of persons and required professions and technical capabilities prior to the initiation of operations.

GHANA		Policies	Legislation	Contracts
Skills Development	General	Ghana's National Development Policy Framework 2014-2017 provides for skills development and capacity building of individuals and enterprises to enable national development	The National Constitution provides for building skills among all Ghanaians. Provisions contained within the Ghana Labour Act No 651 of 2003 include the establishment of public and private employment centres, protection of the employment relationship and skills development. The National Vocational Training Act No. 351 of 1970 and the National Vocational Training Regulations (Executive Instrument 15) require employers to provide training for their employees for the attainment of the level of competence required for the performance of their jobs and to enhance their career.	ontracts have general provisions on skills development for example the Petroleum Agreement between the Government of the Republic of Ghana, the Ghana National Corporation and Tullow Ghana Ltd, Sabre Oil and Gas Ltd, Kosmos Energy Ghana HC in respect of the DEEP WATER TANO Contract Area, March 10, 2006. Article 6.7 provides that the Joint Managemnt Committee shall approve contractors' insurance programmes and programmes for training and technology transfer submitted by the contractor and accompanying budgets for such skills and programmes.
	Sector Specific	The Ghana Local Content and Local Participation Policy of 2010 provides for nationalising knowledge, expertise and technology in oil and gas related industries. The policy requires operators to put in place a training programme to meet certain targets.e.g. developing administrative and technical skills for the industry	Article 9 (13-14) of the Petroleum (Exploration and Production) Act 1984 provides for skills training for all Ghanaians. The Local Content Act 2013 provides that the governement and petroleum companies shall support local training and technical institutions to develop the capacity of Ghanaians to international standards. Oil companies must present details of annual recruitment and training programmes to the Local Content Committee.	Article 21.1 of the PSA provides that contractors must pay USD$200,000 per year to maintain programmes for training Ghanaians and for the transfer of management and technical skills required for effective petroleum operations. Article 21.3 stipulates that contractors must provide opportunities for a mutually agreed number of staff nominated by GNPC to be seconded for placements or on-the-job training with costs borne by the contractor. The operator is required to submit a detailed annual recruitment and training programme for citizens to the relevant regulatory agency for approval within 12 months of the license being granted.

GHANA		Policies	Legislation	Contracts
National Industry Participation	General	The National Development Policy Framework 2014-2017 provides for national industrial participation in the oil and gas sector and for development based on national participation in the oil and gas sector. Section 3.3 of the NDP provides for medium-term policies and strategies to enhance private sector competitiveness including implementation of the Private Sector Development Strategy II (PSDS II). The plan also provides that the country's national resources be leveraged by creating incentives for linking the industry and growth pillars to the agriculture sector.	The 2013 Local Content Act states that Ghanaian companies shall have priority in the award of oil blocks, oil lifting licences and all contracted projects.	
	Sector Specific	The 2010 Local Content and Local Participation Policy provides for attracting increased local value – added investments in the oil and gas sector and for achieving 90 percent local content and local participation in all aspects of the oil and gas sector. Section 5.3 provides for provision of goods and services by locals. A preference for Ghanaian entities is mandated, even if they are up to 10% more expensive. Foreign companies must partner with Ghanaian companies to supply goods and after commencement of operations the participation of Ghanaians shall be at least 10% of value in the provision of goods. Section 5.5 of the policy provides for transfer of technological know-how and calls for the establishment of a petroleum regulatory agency and an independent national local content committee. Section 5.8 provides for oil and gas business development and a local content fund.	Article 9(12) of the Petroleum Production Law 1984 provides for procurement of goods and services from local contractors. The 2013 Local Content Act provides that all operators shall as far as posible use goods and services produced or provided in Ghana by Ghanaian companies even if their prices are up to 10 percent more expensive. Foreign companies that supply goods and services must have local participation of at least 10 percent initially, increasing by 10 percent per year. Foreign companies must provide a local participation plan to the local content committee.	The model PSA provides for local content in provision of goods and services. Article 20 provides that in the purchase of goods and services, preference should be given to Ghanaian firms including shipping services provided by vessels owned by Ghanaians.

EQUATORIAL GUINEA		Policies	Legislation	Contracts
Local Employment	General	The National Development Plan 2020 provides for job creation in order to improve income levels.	Article 5 of the 1995 Naitonal Constitution, which was amended in 2012, provides for protection of labour. Article 10 of the constitution declares that the right to employment shall be recognisd and exercised as stipulated by the law. Article 25 states that work is a right and social obligation and that the State shall recognise its role in improving well-being and developing national resources to eradicate poverty, misery, and shield citizens from need.	No data available.
	Sector Specific	Hydrocarbons sector regulations stipulate that all agreements must have local content clauses and provisions for local employment. All companies must inform the Ministry of Mines and Energy (MMIE) of any vacancies or jobs they intend to create, so the Ministry may disseminate this information to potential national candidates.	The Hydrocarbons Law No. 8/2006 requires companies to abide by provisions pertaining to employment.	Article 23(2) of the PSA provides for employment of adequately qualified Equatoguinean personnel in all levels of the organisation. Expatriate personnel may only be employed if the contractor and its sub-contractors have exhausted all possibilities of recruiting adequately qualified Equatoguinean personnel in the required area of specialisation.

EQUATORIAL GUINEA		Policies	Legislation	Contracts
Skills Development	General	The 2020 NDP provides for skills development, including improving academic education, vocational training and access to information and communication technologies (ICTs).	Article 6 of the National Constitution provides for promotion of scientific and technological research.	No data available.
	Sector Specific	Articles 27 to 32 of the Hydrocarbons Sector Regulation address the integration, funding and development of Equatorial Guinean personnel in the sector. Oil and gas companies are required to submit a programme for the development of local content, as well as an education and training plan for each national citizen employed.	Article 88 of the Hydrocarbons Law states that the government and contractors shall contribute to the study, design, construction, equipment, operation and maintenance of the Hydrocarbon Technological Institute of Equatorial Guinea and the creation of training centers for Equatorial Guinean nationals working in petroleum operations or operations related thereto, regardless of their promotion, support and development of other training centers with similar purposes in existence in Equatorial Guinea. Article 92 states that contractors shall train and integrate national personnel into all levels of their organisations in accordance with this law and the terms of their contracts. In addition to the above, each contractor will contribute to the training of Ministry personnel. To that end, the contractor shall provide the Ministry with an annual sum in USD during the exploration and production periods. This amount shall be determined by the Ministry.	Article 23 (2) of the PSA provides for training of Equatoguineans to enable them to qualify for any position relating to petroleum operations. Artiles 23 (2) (2) - contractors other than the NOC shall pay annual monies to provide a mutually agreed number of Ministry and NOC personnel with on-the-job training in the contractor's operations in Equatorial Guinea and overseas and/ or practical training in institutions abroad, particularly in the areas of natural earth sciences, engineering, technology, accounting, economics and other fields related to oil and gas exploration and exploitation.

EQUATORIAL GUINEA		Policies	Legislation	Contracts
National Industry Participation	General	One of the goals of the National Economic and Social Development Plan (PNDES) is to diversify the economy to free it of its dependence on hydrocarbons and turn the country into an emerging economy by 2020. Equatorial Guinea is expected to take part in Global Value Chains and to promote industrialization of the economy by improving competitiveness, notably by setting up a one – stop – shop for investors.	Article 27 of the National Constitution states that the economy shall function under: a. The mix economic sector which integrates public and private capital for enterprises; b. The private sector, which integrates companies owned by one or more physical persons or corporate bodies with private rights and, more generally, companies that do not fall under the Sectors mentioned above.	No data available.
	Sector Specific	Article 12 of the Regulation of Equatorial Guinea states that contractors are required to give preference to companies owned by citizens of Equatorial Guinea.	Article 89 of the Hydrocarbons Law No. 8/2006 states that the Ministry shall adopt measures to guarantee, promote and encourage investment in the hydrocarbon sector by Equatoguinean companies and shall create the conditions necessary for such purposes. As such, contractors and their associates will comply with the measures adopted by the Ministry regarding the involvement of the national companies in hydrocarbons sector projects.	PSA 23.1 Preference to Equatoguinean Services. The Contractor and its sub-contractors undertake to give preference to Equatoguinean services, materials, equipment, consumables and other goods whose quality and time of delivery are comparable to those available internationally, provided that the cost in Equatorial Guinea is no more than ten percent (10%) above the cost of similar services, materials, equipment, consumables and other goods available internationally.

ANNEX 2 MATRIX OF ANALYSIS – LOCAL CONTENT FRAMEWORKS CHARACTERISATION

Local content policies, legislations and contracts were analysed to assess specificity. This included general legislation that contains local content provision and oil and gas sector specific legislation to promote local content. Local content frameworks were also classified in terms of three categories of intended goal: local employment, skills development and national industry participation. The table below shows examples for each category.

LC GOALS	LOCAL CONTENT FRAMEWORKS			
	SPECIFICITY	LC Policies	LC Legislation	Contracts
EMPLOYMENT	General	For example, anational development plan that contains privisions of priorities regarding employment.	For example, a labour code containing provisions that regulate the entire employment sector i.e. 70% of local citizens must be hired by private companies. Does not include sector specific provisions.	General provisions within contracts regarding local employment that do not entail specific regulations such as percentages i.e. contractors shall hire local employees according to the law.
	Sector Specific (related to the oil and gas sector)	For example, the National Hydrocarbons Sector Development Plan of Angola which contains general statements regarding employment in the oil and gas sector.	For example, a hydrocarbons law with employment-related provisions i.e. 70% of local citizens must be hired in oil and gas companies.	Specific provisions within contracts regarding local employment that include percentages and monitoring mechanisms i.e. 80%of Ghanaian technical workers must be hired.
SKILLS DEVELOPMENT	General	Same criteria applies	Same criteria applies	Same criteria applies
	Sector Specific	Same criteria applies	Same criteria applies	Same criteria applies
NATIONAL INDUSTRY PARTICIPATION	General	Same criteria applies	Same criteria applies	Same criteria applies
	Sector Specific	Same criteria applies	Same criteria applies	Same criteria applies

ANNEX 3 ASSESSMENT CRITERIA – LEVEL OF SPECIFICITY OF LOCAL CONTENT FRAMEWORKS IN AFRICA

Category	Criteria	High = 1.5	Medium = 1	Low = 0.5	Lack of information concerning LC = {-}
Local Employment	**Presence in Oil and Gas Legislation**	Local employment provisions within a specific local content law or a local employment section within oil and gas legislation	There are provisions within oil and gas legislation related to local employment	Local employment related provisions are only included in general laws (labour law, etc.).	There are no local employment provisions in the country's legislation-
	Measurement	There are a) established quotas for local employment expressed in percentages or other measuring mechanisms **and** b) minimum requirements for the participation of local employees in different positions, hierarchy, or skills level	There are a) established quotas for local employment expressed in percentages or other measuring mechanisms **or** b) minimum requirements for the participation of local employees in different positions, hierarchy, or skills level	Local employment provisions are broad and declaratory; do not include measuring mechanisms or minimum requirements for the participation of local employees in different positions, hierarchy, or skills level	There are no local employment provisions in the country's legislation
	Monitoring and Implementation Mechanisms	There are a) entities aimed at ensuring the adoption and implementation of local employment regulations **and** b) fines and/or incentives for the implementation of local employment regulations	There are a) entities aimed at ensuring the adoption and implementation of local employment regulations, **or** b) fines and/or incentives for the implementation of local employment regulations	Provisions do not include monitoring and implementation mechanisms	There are no local employment provisions in the country's legislation
	Contracts	Contracts a) are linked to and reflect legislation regarding local employment, b) include mechanisms to measure local employment, **and** c) include mechanisms to monitor and implement local employment	Contracts are linked and reflect country's legislation regarding local employment and: a) include mechanisms to measure local employment, **or** b) include mechanisms to monitor and implement local employment	Contracts are linked to and reflect country's legislation regarding local employment	Contracts do not include local employment provisions

Category	Criteria	High = 1.5	Medium = 1	Low = 0.5	Lack of information concerning LC = {-}
Skills Development	**Presence in Oil and Gas Legislation**	There are skills development provisions within a specific local content law or a skills development section within oil and gas legislation	There are skills development provisions within oil and gas legislation	Skills development related provisions are only included in general laws (labour law, etc.)	There are no skills development provisions in the country's legislation
	Measurement	There are mechanisms to measure Skills Development that include a) % of skills development investment, **and** b) technology transfer provisions (i.e. contributions for technology or knowledge funds)	There are mechanisms to measure Skills Development that include a) % of skills development investment, **or** b) technology transfer provisions (i.e. contributions for technology or knowledge funds)	Skills development provisions are broad and declaratory; do not include measuring mechanisms or minimum requirements	There are no skills development measurement mechanisms in the country's framework
	Monitoring and Implementation mechanisms	There are a) entities aimed at ensuring the adoption and implementation of skills development regulations, **and** b) requirement of training programmes or agreements with universities.	There are a) entities aimed at ensuring the adoption and implementation of skills development regulations, **or** b) requirement of training programmes or agreements with universities	Provisions do not include monitoring and implementation mechanisms	There are no monitoring and implementation mechanisms in the country's framework
	Contracts	Contracts a) are linked to and reflect country's legislation regarding skills development, b) include mechanisms to measure skills development, **and** c) include mechanisms to monitor and implement skills development	Contracts are linked and reflect country's legislation regarding skills development and a) include mechanisms to measure skills development, **or** b) include mechanisms to monitor and implement skills development	Contracts are linked and reflect country's legislation regarding skills development	Contracts do not include skills development provisions

Category	Criteria	High = 1.5	Medium = 1	Low = 0.5	Lack of information concerning LC = {-}
National Industry Participation	**Presence in Oil and Gas Legislation**	There are national industry participation provisions within a specific local content law or a national industry participation section within the oil and gas legislation	There are national industry participation provisions within oil and gas legislation	National industry participation related provisions are only included in general laws (labour law, etc.)	There are no national industry participation provisions in the country's legislation
	Measurement	There are a) mechanisms to measure national industry participation that include criteria and formulas, **and** b) minimum percentages of national industry participation in the oil and gas sector	There are a) mechanisms to measure national industry participation that include criteria and formulas, **or** b) minimum percentages of national industry participation in the oil and gas sector	National industry participation provisions are broad and declaratory; do not include measuring mechanisms or minimum requirements.	There are no national industry participation measurement mechanisms in the country's framework
	Monitoring and Implementation mechanisms	There are a) entities aimed at ensuring the adoption and implementation of national industry participation, **and** b) inclusion of national industry participation criteria in the bidding processes of the oil and gas sector	There are a) entities aimed at ensuring the adoption and implementation of national industry participation, **or** b) inclusion of national industry participation criteria in the bidding processes of the oil and gas sector	Provisions do not include national industry participation mechanisms	There are no monitoring and implementation mechanisms in the country's framework
	Contracts	Contracts a) are linked and reflect country's legislation regarding skills development, b) include mechanisms to measure skills development, c) include mechanisms to monitor and implement skills development.	Contracts are linked and reflect country's legislation regarding skills development and: a) include mechanisms to measure skills development, or b) include mechanisms to monitor and implement skills development.	Contracts are linked and reflect country's legislation regarding skills development.	Contracts do not include skills development provisions.

ANNEX 4 ASSESSMENT CRITERIA - OUTCOME LEVEL OF LOCAL CONTENT FRAMEWORKS IN AFRICA

Concepts		Score			
		High= 1.5	Medium= 1	Low= 0.5	Lack of Information= {-}
Local Employment	**a. National Personnel Directly Employed by the Company**	The company has at least 90% of national employees.	The company between 80 and 90% of national employees.	The company has less than 80% of national employees.	No available data.
	b. Review of secondary Sources	a) There is on-going debate about the importance of local employment in the oil and gas sector; b) there is evidence about the rates reported by the company; and c) there are press releases and articles about oil and gas companies' local employment practices.	a) There is on-going debate about the importance of local employment in oil and gas sector; and b) there are press releases and articles about oil and gas companies' local employment practices.	There is on-going debate about the importance of local employment in the oil and gas sector.	The topic of local employment from the oil and gas sector is not covered in the secondary sources.
Skills Development	**a. Investment in Skills development per Employee**	USD$1,500 or higher	USD$500-1,500	USD$500 or less	No available data
	b. Review of secondary Sources	a) There is on-going debate about the importance of skills development in the oil and gas sector; b) there is evidence that support the rates reported by the company; c) there are press releases and articles about oil and gas companies' skills development practices.	a) There is on-going debate about the importance of skills development in the oil and gas sector; and b) there are press releases and articles about oil and gas companies' skills development practices.	There is an on-going debate about the importance of skills development in the oil and gas sector.	The topic of skills development in the oil sector is not covered in secondary sources.
National Industry Participation	**a. Value of Contracts Awarded by the Companies to Local or National Providers**	More than 90%	80 – 90%	Less than 80%	No available data
	b. Review of Secondary Sources	a) There is on-going debate about the importance of the participation of the national industry within the oil and gas sector; b) there is evidence that support the rates reported by the company; c) there are press releases and articles about the companies' national industry participation practices.	a) There is on-going debate about the importance of the participation of the national industry within the oil and gas sector; and b) there are press releases and articles about the companies' national industry participation practices.	There is on-going debate about the importance of the participation of the national industry within the oil and gas sector.	The topic of the participation of the national industry within the oil sector is not covered in secondary sources.

ANNEX 5 ASSESSMENT OF THE OUTCOMES OF LOCAL CONTENT FRAMEWORKS IN AFRICA (2010 – 2014)

Category	Indicator		Angola	Nigeria	Ghana	Chad	Tanzania	Equatorial Guinea	Uganda
Local Employment	# of Employees	NOC	13,000	15,000	6,929	n/d	n/d	10,500	n/d
		Private	n/d	n/d	3,616	n/d	n/d	n/d	n/d
	% Local Employees	NOC	70%	80%	80%	98%	n/d	n/d	n/d
		Private	n/d	n/d	64%	n/d	n/d	70%	n/d
Skills Development	Annual Investment in Skills Development (USD)	NOC	n/d	n/d	USD$3 million	n/d	n/d	USD$ 250,000	n/d
		Private	n/d	n/d	n/d	n/d	n/d	n/d	4
	# Trained Employees	NOC	13,000	15,000	n/d	n/d	n/d	n/d	n/d
		Private	n/d	n/d	n/d	n/d	n/d	n/d	1990
National Industry Participation	# of Signed Contracts with Providers	NOC	n/d	256	n/d	n/d	n/d	n/d	n/d
		Private	n/d	n/d	258	n/d	n/d	324	3
	% of Contracts Awarded to National and Local Companies	NOC	n/d	n/d	n/d	n/d	n/d	20	n/d
		Private	n/d	n/d	n/d	n/d	n/d	35	n/d
	Value of Contracts Awarded to National and Local Companies (USD)	NOC	n/d	USD$52 billion	n/d	USD$30 billion	n/d	n/d	n/d
		Private	n/d	n/d	USD$584 million	n/d	n/d	USD$600 million	n/d

Sources: Data collected from the African Economic Outlook and African Development Bank websites, as well as World Bank Group (2015)
**n/d = No data available*

ANNEX 6 LOCAL CONTENT OUTCOMES OF ENTERPRISE CENTRES IN SELECTED CASES

Country	Enterprise Centre	Partners	Features of the programme	Key Outcomes
ANGOLA	Centro de Apoio Empresarial (CAE), established in 2005	Sonangol, British Petroleum, Exxon Mobil, Total and Chevron	SMEs assisted with financial analysis, preparation of bids, and training on specific elements of provision of goods and services to the oil industry. A company directory created including certified local companies and an assessment of their capacity. Assistance with access to finance.	The project generated 4,809 jobs, certified over 100 companies in various sectors and delivered over 224 business training courses. Participating SMEs won over 300 contracts. Database established containing over 1,400 SMEs. CAE became an organ of the Chamber of Commerce of Angola in 2011.
GHANA	Enterprise Development Centre (EDC), established in 2013	An initiative of the Government of Ghana initiative in collaboration with the Jubilee Partners and a network of entrepreneurs in Ghana called Enablish Entrepreneurial Network (Enbalis). The government appointed Enablis to establish and run the EDC which is expected to play a pivotal role in identifying opportunities and facilitating the development of SMEs for their participation in the oil and gas sector.	The EDC is responsible for identifying opportunities and facilitating the development of local SMEs for their participation in the oil and gas sector; communicating required standards; promoting collaboration between SMEs; training and development, business incubation, and consultancy services to SMEs.	The EDC was only recently launched and results are not yet available.
CHAD	Enterprise Centre established in 2004	The Centre was implemented by the IFC, in association with ExxonMobil and the Chamber of Commerce of Chad.	A comprehensive survey of local SMEs conducted and SMEs rated according to their level of competency. Public workshops provided SMEs with access to information about the pipeline of bidding opportunities and standards required. E-Procurement system introduced and SMEs trained in use. Programmes to improve access to finance for SMEs	Number of local SMEs considered by ExxonMobil went up from 17 to over 1,300. Applications per bid in Chad increased fivefold from 5 to 25 SMEs. As of 2009, 102 local firms were assisted in bidding. 30 contracts worth over $56 million have been awarded. In 2012, purchase of goods and services from local suppliers totalled $175 million. The Chad Enterprise Centre became an integral unit of the Chamber of Commerce in 2010.

Country	Enterprise Centre	Partners	Features of the programme	Key Outcomes
NIGERIA	Pan African University's Enterprise Development Centre (EDC). established in 1991	The EDC partners with the IFC	The EDC manages IFC's SME Toolkit, providing business advice and tools online. For instance, the EDC has integrated the SME Toolkit into all its executive education programmes including government-supported programmes, as a resource tool for participants.	The EDC trained 46 trainers, including 16 women, to deliver Business Edge workshops to 1,367 individuals, including 414 women. 24,000 entrepreneurs and small business owners submitted business plans to the first YouWIN! Competition and 1,200 won between $7,000 and $70,000 in seed money to start or expand their businesses. Since its inception, more than 1,500 small business owners, employees and entrepreneurs have been trained by the EDC and over 15,000 have accessed the IFC's SME Toolkit.
EQUATORIAL GUINEA	Institute for Enterprise Development and Promotion (INPYDE), established in 2013	Triton- Hess Energy Limited, ExxonMobil, Marathon Oil Corporation and Noble Energy	No data available	No data available
UGANDA	None to date			
TANZANIA	None to date			

ANNEX 7 LOCAL CONTENT IMPLEMENTATION AND OUTCOMES FOR SELECTED COUNTRIES IN AFRICA

COUNTRY	OUTCOMES
GHANA	According to the Ghana National Petroleum Corporation (GNPC) there is high involvement of Ghanaians in offshore and onshore activities providing services but the industry is extremely capital intensive and it is not easy to mobilise financial resources from financial institutions. Local companies remain limited in terms of delivering ancillary services like real estate and hospitality; they are not yet competitive, lack industry certification, face high costs. IOCs still import some foods and other inputs required for oil and gas production. Total number of people employed in the upstream sector is estimated at 6,929, of which 5,589 or 80% are Ghanaian employees. International Oil Companies employ about 3,616 of whom2,315 or 64% are Ghanaians. Native Ghanaian registered companies employ 1,973 Ghanians and the indirect and secondary employmentis about six times the direct employment (Amoako et al. 2015). Over 150 Ghanaian companies are operating in the upstream sector and total contracts awarded to local companies since 2009 total over USD$600million since 2009. Two major fabrication companies have been established as well as two piping and casing companies (Amoako et al. 2015). In terms of employment, out of about 6,600 jobs created in the industry as of December 2014, almost 4,900 (over 75%) were Ghanaians, according to the Minister of Energy (Mr. Buah) first anniversary speech reported in The Chronicle (2015). Oil companies were supposed to prepare and implement plans for technology transfer, however it is too early to tell whether this has been carried out. Skills training has been provided at Takoradi Polytechnic and Kwame Nkurumah University. There has been no follow-up on students trained and where they are going for jobs, what percentage of trained manpower goes directly into the oil and gas sector and what percentage goes to other areas of the economy (Amoako et.al., 2015).

NIGERIA	Despite the lack of a strong measurement system with independent evaluation capacity and given the fact that most initiatives are still in the early stages with few details available, the following outcomes have been identified from recent studies and publications (Ovadia, 2014; NBS, 2014). The Nigeria Content Development Monitoring Board estimates that local capture of oil industry spend has risen from 5 to 40 percent in the last decade. It is estimated that with an annual investment of USD$15 billion per year, local content practices could help retain over USD$5 billion in the Nigerian economy annually. Manufacturing has increased from 8.65 percent to 9 percent according to National Bureau of Statistics figures for 2014. Important commitments have been made by IOCs through the Capacity Development Initiatives (CDIs) Sub-committee. For example, Shell has developed local capacity to produce seamless pipes, Chevron for assembling valves, Total for developing local production barites (mineral using in drilling), ENI has built capacity around marine services and ExxonMobil has financed welding qualifications and developed a local content plant for producing umbilicals. Shell reports having provided reliable lighting and electric power to people and small businesses (SMEs), creating thousands of jobs and educating and training thousands in the process. In compliance with the Local Content Act, the original equipment manufacturers were mandated to partner with their representative in Nigeria to set up facilities to manufacture products or assemble components such as valves, pumps, electrical and instrumentation products in Nigeria. Over 30 original equipment manufacturing companies have indicated interest in setting up their factories in Nigeria before the end of 2017. This will increase foreign direct investment to the benefit of the Nigerian economy. The implementation of the Local Content Act increased the participation of nationals in the oil and gas contract to 87% in 2012. The Ministry of Petroleum Resources said in the same year that the implementation has led retention in the national economy of over USD$10 billion out of an average annual oil and gas industrye xpenditure of USD$20 billion. Employment and human capacity has been boosted with over 5,000 people being trained and employed and another 25,000 directly employed, excluding those who are remotely employed by the activities of the operators in the sector.

UGANDA	In Uganda, International Oil Companies through their Corporate Social Responsibility (CSR) policies have taken specific actions to target education and employment of Ugandans and enterprise development. For example, Total E & P has launched an intensive recruitment compaign for national employees and today more than 80 percent of all E&P Uganda staff (either direct or indirect staff) are Ugandan nationals (Ssekika, 2014). Total E & P Uganda employs 250 staff of which 60 percent are Ugandans employed in positions varying from engineers to personal assistants in Kampala and in the area of operations. In addition, more than 23,000 personnel have been employed by Total E & P Uganda's contractors in 2013 mostly in the field, out of which more than 80 percent are Ugandans. Total International Scholarship targets outstanding students who are willing to enroll in Bachelor's and Masters's degree programmes in a wide array of disciplines, from petroleum engineering to economics and management. Students who successfully complete this programme are employed by Total E & P Uganda. In 2012, there were 5 beneficiaries of this programme and 2013 there were 4 beneficiaries who were enrolled in top universities in France, the UK and Nigeria. After successful completion of these programmes they joined the company. Total E & P Uganda ran internships that involved 4 students in 2012 and 5 students in 2013. Total E & P Uganda Summer School.Total organises an annual one week event in France for over 120 students from all over the world to discuss and analyse major energy issues and challenges. Since 2012, 4 students from Uganda have attended the event. The Graduate Management Trainee Programmeaims to recruit recent graduates with eighteen month contracts. Every year approximately 10 trainees are recruited to the company's operations. Since inception, 67 percent ofthe trainees went on to receive full time employment with the company upon completion of the programme. Tullow noted in its 2012 Corporate Social Responsibility Report that up to 88 percent of its staff in Uganda are nationals. In 2012, Tullow spent USD$ 47.5 million with local suppliers and USD$ 44 million on payroll for Ugandan employees (Tullow, 2012). Tullow also made a US$ 600,000 discretionary investment to open an enterprise center in Hoima and funded Traidlinks, an organsation undertaking enterprise development and agricultural supply chain activities.
TANZANIA	*Pan African Energy has been developing and implementing health and education programmes that have improved the health of SongoSongo islanders, provided education to youths and trained and equipped new teachers. Additionally, the company's employees have volunteered to provide life skills training on the prevention of HIV/AIDS and the dangers of drug and alcohol abuse to local communities.* *In an effort aimed at strengthening capacity in the oil and gas sector, Statoil Tanzania is currently financing 31 Master's students and one doctorate degree student mainly in petroleum engineering, geo-science and finance at universities in Norway and Tanzania.*

EQUATORIAL GUINEA	Eight new oil exploration contracts have been signed recently, with four of them onshore (including on the Rio Muni mainland), of which three were expected to give rise to their first perforations by the end of 2014. Now, Equatorial Guinea is moving to develop its entire petrochemical value chain and is working with the private sector to create a highly developed and vertically integrated domestic industry (Embassy of Equatorial Guinea, 2015).
CHAD	During the construction of the Chad- Cameroon pipeline, the project employed 5,747 Chad nationals many of whom were unskilled labourers. The labourers on the pipeline project received training that upgrarded their skills helping them in future jobs (Ntsimi, 2011). The project helped build schools, hospitals, health units and community water wells. An extensive public health education programme focusing on malaria and HIV was put in place under the coordination of the Pipeline Steering and Monitoring Committee where more training is offered to employees. The government with the support of the World Bank Group launched a Small and Medium Enterprise Initiative in July 2001 to ensure that the private sector in Chad shares in the benefits of the Chad- Cameroon Oil Pipeline Project. Technical assistance activities include: • The establishment of FINADEV, Chad's first accredited commercial finance institution. To date, there are 1,500 beneficiaries of micro-loans • Securing supply and services contracts for trained small agribusiness and other skilled entrepreneurs with oil companies and their sub-contractors in the petroleum producing zone • Agribusiness enterprise creation in southern Chad, in partnership with Africare. Results include creation of seven micro –enterprises, training of about 400 people, and seven supply contracts for vegetable, fish, pig, poultry, sheep and cattle farms. The IFC's linkages team partned with the oil consortium, sub-contractors, international NGOs, the government of Chad and Chad's Chamber of Commerce to support local SMEs and build linkages between the oil industry consortium and local suppliers.This Enterprise Centre which became operational in December 2004, was a one-stop shop for a spectrum of services, such as local supplier identification and evaluation, training, consultations and contract management and delivery, information dissemination and access to finance. The enterprise centre has been a networking and training hub to empower SMEs and citizens. Local companies have been made more competitive when bidding for contracts with IOCs.

ANGOLA	Presidential Legal Decree 3/2012 of 16 March reduced the petroleum income tax from 50 percent to the standard industry tax of 30 percent. International Oil Companies' use of Angolan Banks and currency has improved market operations, provided greater effectiveness to monetary policy and should help stem capital flight according to IMF (Ovadia, 2014). Sanangol Industrial Investments (SIIND) has coordinated the establishment of 73 factories in theViana Special Economic Zone. It invested USD$50 million in the first eight factories which opened in 2011. A further six factories were opened in the summer of 2012 at a cost of USD$78 million. The factories that have opened are producing goods for the oil industry. Cameroon Angola Company opened a manufacturing plant in Sonils in January 2011 that employs 144 people of whom 95 are Angolan. The factory produces a range of sub-sea wellheads and metallic structures and carries out refurblishment and repairs. The Enterprise Support Centre (CAE) programme for building enterprises has strengthened Angola's supply chain network and improved the ability of Angolan enterprises to supply IOCs. By the end of the project, more than 1,500 Angolan-owned business had participated in the CAE programme through training and technical assistance. 124 companies were certified as suppliers for the oil industry and some contracts and contract extensions resulted from CAE involvement. CAE generated more than USD$214 million in oil industry contracts, while supporting the creation of more than 2,700 Angolan jobs. Some of the SMEs trained by CAE have grown into larger – scale operations to meet oil industry needs e.g NASA Commercial Import and Export Ltd; Luafanda Reparacoes (LDA) and Angolan plumbing and electrical SMEs. CAE established a database with over 1,400 SMEs. CAE became an organ of the Chamber of Commerce of Angola in 2011. Chevron funded programmes providing technical assistance to more than 3,000 farmers through the creation of around three dozen associations (Angola Partnership Initiative) and helped createNovoBanco, a thriving micro and small- business finance institution. The NOC, Sonangol has been taking lead in the implementation of LCPs. The company has ventured into drilling, fabrication, transportation, industrial supplies and infrastructure, distribution, storage services; banking, food retail, and catering; and civil engineering and real estate development (Tordo & Anouti, 2015:25).

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