

## SUMMARY

Local-content legislation and policies in oil and gas producing countries have become a key priority for host governments and industry players alike. Increasingly, more resource-rich developing countries are enacting local-content legislation as a means to maximise the benefits from their petroleum industries. However, these laws and policies are being implemented with insufficient research into their efficacy, and as a result, have often yielded mixed results.

This paper assesses the effect of local-content legislation and policies in the oil and gas industry to gain insight into the challenges faced by industry players concerning their implementation. We trace the channels through which local-content legislation is advancing value creation by evaluating different implementation programs, using clearly stated local-content targets to measure efficacy. Nigeria, Ghana, Brazil and Norway are chosen as case study countries to highlight the diversity of local-content strategies for countries at different developmental stages. The motivation for this research is to provide host governments, oil companies and domestic suppliers some guides on how to successfully develop and implement local-content regulations and strategies.

The experiences of the case study countries above show that the success or otherwise of local-content legislation and policies remains a function of a country's institutional setting and developmental paradigm. Based on our review of the case studies, we summarize that successful local-content legislation and policies should be anchored on the following principles: (i) local-content policies need to look beyond simple generation of economic rents to focus on the development of linkages; (ii) the tools developed to measure agreed local-content benchmarks must be clearly defined to the acceptance of all industry players; and (iii) the success of local-content depends on the availability of an industrial and supplier base that can act as growth levers.

**Keywords:** *Local-content, Regulatory Policy, Oil and Gas Industry, Commodities Linkages*

## TABLE OF CONTENTS

<b>SUMMARY .....</b>	<b>I</b>
<b>TABLE OF CONTENTS .....</b>	<b>II</b>
<b>LIST OF FIGURES .....</b>	<b>III</b>
<b>LIST OF TABLES.....</b>	<b>IV</b>
<b>1 INTRODUCTION .....</b>	<b>1</b>
<b>1.1 MOTIVATION AND RESEARCH QUESTIONS .....</b>	<b>4</b>
<b>2 LOCAL-CONTENT PARADIGM IN THE OIL AND GAS INDUSTRY.....</b>	<b>7</b>
<b>2.1 RELATED LITERATURE ON LOCAL-CONTENT POLICY APPROACH .....</b>	<b>7</b>
2.1.1 <i>Why Local-content? .....</i>	<i>7</i>
2.1.2 <i>Shifting Trends.....</i>	<i>8</i>
2.1.3 <i>Defining Local-content .....</i>	<i>9</i>
2.1.4 <i>Local-content Policy Structures.....</i>	<i>12</i>
<b>2.2 INDUSTRIAL POLICY, LINKAGES AND THE OIL AND GAS VALUE CHAIN.....</b>	<b>18</b>
<b>2.3 BALANCING STAKEHOLDER INTERESTS IN LOCAL-CONTENT DELIVERY .....</b>	<b>24</b>
2.3.1 <i>Consolidating the Balance of Interests.....</i>	<i>27</i>
<b>3 METHODOLOGICAL FRAMEWORK FOR ASSESSING AND BENCHMARKING LOCAL-CONTENT .....</b>	<b>29</b>
<b>3.1 INDICATORS AND KPIS FOR MEASURING LOCAL-CONTENT .....</b>	<b>31</b>
<b>4 COUNTRY CASE STUDIES .....</b>	<b>36</b>
<b>4.1 NIGERIA .....</b>	<b>36</b>
4.1.1 <i>Overview of Upstream Oil and Gas Sector in Nigeria .....</i>	<i>36</i>
4.1.2 <i>Early Industrial Policy Efforts and Subsequent Effects .....</i>	<i>40</i>
4.1.3 <i>Content Development Act.....</i>	<i>43</i>
4.1.4 <i>Effect of Content Regulations on Development of Linkages.....</i>	<i>47</i>
<b>4.2 GHANA.....</b>	<b>50</b>
4.2.1 <i>Overview of Upstream Oil and Gas Sector in Ghana.....</i>	<i>50</i>
4.2.2 <i>Institutional Arrangement, Legal Framework and Policies.....</i>	<i>51</i>
4.2.3 <i>Industry Structure, Local-content Policies and Regulations.....</i>	<i>52</i>
4.2.4 <i>Oil and Gas Sector Linkages, Value Drivers and Industrial Development.....</i>	<i>61</i>
4.2.5 <i>Implementation Challenges of Ghana’s Local-content Provisions.....</i>	<i>64</i>
<b>4.3 BRAZIL.....</b>	<b>67</b>
4.3.1 <i>Overview of the Upstream Oil and Gas Sector .....</i>	<i>67</i>
4.3.2 <i>Institutional Arrangements, Legal Frameworks and Policies .....</i>	<i>69</i>

4.3.3	<i>Industry Structure and Local-content Regulations, Linkages and Value-Drivers</i> ....	71
4.3.4	<i>Implementation Challenges of Brazil's Local-content Provisions</i> .....	75
<b>4.4</b>	<b>NORWAY</b> .....	<b>77</b>
4.4.1	<i>Overview of the Upstream Oil and Gas Sector</i> .....	77
4.4.2	<i>Institutional Arrangements, Legal Frameworks and Policies</i> .....	79
4.4.3	<i>Industry Structure, Local-content and Local-content Regulations</i> .....	82
4.4.4	<i>Oil and Gas Sector Linkages, Value Drivers and Industrial Development</i> .....	85
<b>5</b>	<b>CONCLUSIONS AND RECOMMENDATIONS</b> .....	<b>87</b>
	<b>APPENDIX</b> .....	<b>91</b>
	<b>ABOUT THE AUTHORS</b> .....	<b>92</b>
	<b>BIBLIOGRAPHY</b> .....	<b>93</b>

## LIST OF FIGURES

Figure 1.1	Oil and Gas Industry Value Chain .....	2
Figure 3.2	Legal Structures for Local-content.....	13
Figure 3.3	Ghana National Energy Policy.....	14
Figure 3.5	Brazil - Legislation for Exploration and Production of Oil and Natural Gas .....	15
Figure 3.6	Equatorial Guinea Local-content Law.....	16
Figure 3.7	Local-content Obligations in Service Agreement.....	18
Figure 3.8	Examples of Oil and Gas Sector Linkages .....	21
Figure 3.9	Conceptual Model for Local-content Development.....	23
Figure 3.10	Stakeholder Relationships.....	26
Figure 4.1	Local-content Metrics in the Oil and Gas Sector .....	32
Figure 5.1	GDP by Sector (Percentage).....	38
Figure 5.2	Nigeria Training Schedule .....	39
Figure 5.3	Sectoral Distribution of GDP, 2009-2013 .....	53
Figure 5.4	Ghana Local-content Interactions and Outcomes .....	55
Figure 5.5	Breakdown of value-added by economic activity (2010) .....	68
Figure 5.6	Macroeconomic Indicators for the Petroleum Sector 2013.....	78
Figure 5.7	Norwegian State Organisation in relation to the Oil & Gas Sector .....	81
Figure 5.8	Export Structure of the Norwegian Economy .....	82
Figure 5.9	Interaction of oil and gas sector with other sectors in Norway .....	84
Figure 5.10	Proportion of sales that is oil and gas related.....	85
Figure 5.11	Important drivers of petroleum-related sales .....	86

## LIST OF TABLES

Table 1.1 Comparison Factors Used for the Study.....	4
Table 3.1 Comparative Country Legislative Enactments.....	12
Table 4.1 Some Common Local-content Measurement Metrics.....	33
Table 5.1 Ghana Local-content Levels.....	56
Table 5.2 ANP's Functional Duties.....	71
Table 5.3 Average Local-content Percentages (1999-2008) - Brazil.....	73
Table 5.4 Objective and Strategy of PROMINP.....	75