



# EFFICIENCY, SUSTAINABILITY AND EXIT STRATEGY IN THE OIL AND GAS SECTOR

## Lessons from Ecuador for Uganda

Sabastiano RWENGABO

March 2017

ACODE Policy Research Series No.81, 2017







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*Build a baseline. Build a baseline. Build a baseline. Think through what the scenario will be if nothing is done. Tell companies how to do things in a different way. Create awareness, help people make decisions, and cater for future externalities. Interconnect the oil electric system to the national grid so as to generate a lot of power demand and have more for export. Convince companies to start thinking beyond barrels, to think about kilowatts. An integrated system increases the net oil production through energy efficiency. Through energy efficiency, you can increase a country's barrel per capita oil production. The economics of energy efficient oil and gas production are very important. Reducing the cost of oil production, through energy efficiency, is vital for increasing the efficiency of the entire oil and gas sector.*

**Berend van der Berg, OG&EE Project, Quito, Nov. 2016**

# Abstract

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*Sustainable management of the oil and gas sector is one of the greatest yet elusive ideals facing petroleum-rich countries. Flattered by petro-dollars, many oil-rich economies have plundered their opportunities and wasted valuable time by relegating other equally important sectors and sometimes spending oil revenues unproductively. Avoiding this misleading approach to petroleum-wealth management is critical for sustainable exploitation of the high-value resource. This is based upon the awareness that petroleum is exhaustible and should provide the means toward socioeconomic and infrastructural transformation of the economy. Ecuador learnt this lesson a little late, but has made commendable strides since 2007. Uganda needs to learn from such earlier entrants in the sector. This paper draws lessons from the more experienced oil-and-gas-producing Ecuador, for Uganda's nascent oil and gas sector, to argue a case for sustainable petroleum-exploitation. It relies on extant inquiries on developments in Uganda's oil and gas sector, observation of oil-related developments in Ecuador, and interactions and exchanges with intellectuals from Uganda and Latin America. The findings reveal that countries which lay emphasis on the following four aspects in the oil and gas sector are able to maximize returns from the sector for current and future generations: institutional design and planning for oil-sector efficiency; balancing oil-sector developments with protection and conservation of natural environs; national and regional diversification of the economy and energy sector; and strategic investment of petro-revenues. These considerations are vital for thinking about, and working toward, efficiency, sustainability, and an exit strategy in the country's oil and gas sector.*

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# List of Acronyms

<b>ACODE</b>	Advocates Coalition for Development and Environment
<b>AFIEGO</b>	Africa Institute for Energy Governance
<b>AG</b>	Associated Gas
<b>ALC</b>	Area Land Committee
<b>BIRUDO</b>	Buliisa Integrated Rural Development Organization
<b>BUKITAREPA</b>	Bunyoro-Kitara Reparations Agency
<b>CBO</b>	Community-based Organization
<b>CCO</b>	Certificate of Customary Ownership of Land
<b>CDO</b>	Community Development Officer
<b>CELEP EP</b>	Corporación Eléctrica del Ecuador (National Electric Company/Ecuadorian Electric Corporation)
<b>CEN</b>	Country Engagement Note [under the World Bank Zero Flaring program]
<b>CNEL</b>	(National Electricity Company)
<b>CO<sub>2</sub></b>	Carbon dioxide
<b>CPF</b>	Central Processing Facility
<b>CPF</b>	Central Processing Facility
<b>CRED</b>	Civic Response on Environment and Development
<b>CSO(s)</b>	Civil Society Organization(s)
<b>DEC</b>	District Executive Committee
<b>DGF</b>	Democratic Governance Facility
<b>DLB</b>	District Land Board
<b>EAC</b>	East African Community
<b>EARDP</b>	Environmental Assessment and Rural Development Programs
<b>EARDS</b>	East African Regional Refineries Development Strategy
<b>ELLA</b>	Evidence and Lessons from Latin America
<b>ENAMI</b>	(National Mining Company)
<b>ENAMI</b>	Empresa Nacional Minera del Ecuador (National Mining Company of Ecuador)
<b>ENAP</b>	Empresa Nacional del Petróleo (Chile's National Petroleum Company)
<b>FGD</b>	Focus Group Discussion
<b>GDP</b>	Gross Domestic Product
<b>GRA</b>	Global Rights Alert
<b>KII</b>	Key Informant Interview
<b>KRC</b>	Kabarole Research and Resource Center
<b>KW</b>	Kilowatts



kWh	Kilowatt per hour
LACWADO	Lake Albert Children and Women Advocacy and Development Organization
LC	Local [Government] Council
LEAP	Learning into Practice
LPG	Liquefied Petroleum Gas/liquid petroleum gas (aka propane or butane)
MERE	Ministry of Electricity and Renewable Energy
MNCs	Multinational [Oil] Companies
MoLHUD	Ministry of Lands, Housing and Urban Development
MoU	Memorandum of Understanding
MW	Megawatts
NAVODA	Navigators for Development Association
NFA	National Forestry Authority
NG	Natural Gas
NOGP	National Oil and Gas Policy [for Uganda]
OEPC	Occidental Exploration & Production Company
OGE&EE	Optimización Generación Eléctrica and Eficiencia Energética (Optimal Electricity Generation and Energy Efficiency)
OPEC	Organisation of Petroleum Producing Countries
PAPs	Project Affected Persons
PAU	Petroleum Authority of Uganda
PFMA	Public Finance Management Act
PSAs	Production Sharing Agreements
R&D	Research and Development
RICE-WN	Rural Initiative for Community Empowerment, West Nile
SOTE	Trans-Ecuadorian Oil Pipeline
TIU	Transparency International Uganda
TTI	Think Tank Initiative [of the Canadian International Development Research Council]
UHRC	Uganda Human Rights Commission
UNASOL	Union of Latin American countries***
UNDP	United Nations Development Program
UNOC	Uganda National Oil Company
UPDF	Uganda People's Defence Forces
VPSAG	Virtual Pipeline for Stranded Associated Gas
Yasuni-ITT	Yasuni – Ishpingo, Tambococho, Tiputini
ZEDES	(Special Economic Development Zones)

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Following the author's excellent participation in the learning alliance on *Local Content in the Oil and Gas Sector*, he was invited for a Study Tour to Ecuador. The Tour was intended to provide both a learning experience as well as create a network of intellectuals learning about, debating, and advocating appropriate local content and other relevant practices in the oil and gas sector in the global south. The Tour involved days of presentations, mainly in Quito, the Ecuadorian capital; discussions; and field visits in the Amazon region including touring the Yasuni National Park and Ethnic Reserve. After the Tour, the author won a US\$ 5,000.00 Learning into Practice (LEAP) Award, from Practical Action Consulting, the managers of the ELLA Learning Alliance, to avail Study-Tour lessons to broader audiences. With this moderate but generous funding, the author draws on personal experience, exposure, lessons and observations in Latin America, and existing studies on the Ugandan oil and gas sector to undertake this study.

This paper, therefore, was accomplished with input from several people. To mention but a few: Mark Lewis (Practical Action Consulting); Marcela Morales and Juan José Herrera (Grupo FARO) not only managed the nitty-gritty of the ELLA Learning Alliance and Study Tour but also provided useful information that enriched this study. Berend van den Berg of the OGE&EE [*Optimización Generación Eléctrica and Eficiencia Energética*] Project made invaluable contribution by sharing documents, connecting the researcher to several other sources (including World Bank), and elaborating other issues through continuous email correspondences. All resource persons, from government in Ecuador, officials from the Petroamazonas oil company, researchers and academicians from Latin American Faculty of Social Sciences (FLACSO), University of the Americas, Catholic University of Ecuador, and the Yasuni Scientific Station and National Park authorities were also immensely helpful for this study. Blessings from the Huaorani Chief, whom the author and other study tour participants met in the Yasuni Ethnic Reserve, where REPSOL operates a community program, may have also made this study a success. Fellow Study Tour participants, particularly, Francis Mwesige and Sam Mucunguzi (all

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Domestically, this study would not have been produced without the support, input and participation of ACODE researchers and staff, as well as counterpart professionals in the Ugandan research community. ACODE is fortunate to have the support of the Think Tank Initiative (TTI), Democratic Governance Facility (DGF) and other donor agencies which provide funding to ACODE that makes it possible to undertake various research and policy advocacy activities. Many bilateral and multilateral donor agencies, charitable foundations, and research institutions across the globe have been helpful to ACODE in its work. The author was also directly supported by Prof. Elijah Dickens Mushemeza, Research Associate at ACODE and Africa coordinator of the ELLA program; John Okiira, Research Officer at ACODE; Onesmus Mygyenyi, Deputy Executive Director and Program Manager, Environmental Democracy Program (EDP), at ACODE; Assoc. Prof. Wilson Winstons Muhwezi, Director of Research at ACODE; Bernadette Mercy Ndema, Communications Officer, ACODE; and more people. While various people contributed to this work, the views expressed, and sole responsibility for errors and/or omissions, are the author's. The author hopes that this study will contribute to the policy discourse on matters of oil governance by highlighting the efficiency, sustainability, and exit strategy issues in the lucrative but nascent sector in Uganda, and thereby reward the efforts and contributions of the several persons—both mentioned and unmentioned—in this acknowledgement.

# Executive Summary

## *The Problem*

This paper draws from Ecuador's oil and gas (herein used interchangeably with "petroleum") sector to inform Uganda's evolving petroleum developments. These lessons have wider implications for the developing-world regions of Africa and Latin America. The paper lays emphasis on the institutional re-design and development in post-2006 Ecuador and links with analyses that stress the institutional dimension of governing the oil and gas sector for the transformation of petroleum economies. Since institutions shape the strategic choices made by oil-rich states on the management of oil revenues and technologies, an analysis of institutional experiences is useful for assessing the implications of these choices for environmental sustainability, strategic investments, diversification of energy sectors and the economy, and exit strategies.

Despite the numerous undesirable experiences of different petro-states, few attempts have been made to draw lessons from global south oil producing countries to inform sectoral developments in nascent oil economies. Specifically, south-south knowledge exchange, drawing of lessons and experiences remains limited to analogous reflections on the institutional limitations in these global south polities to utilise their God-given wealth to transform their economies.<sup>1</sup> As a result, comparisons between younger and older petro-economies that would provide policy-relevant learning-points for nascent oil economies remain less well articulated.

## *Objectives & Justification*

The goal of the paper is to draw lessons from Ecuador's post-2006 governance of the oil and gas sector for Uganda's nascent sector. This would be achieved by meeting four objectives:

- i. To examine the relationship between institutional processes and the development of the petroleum sector in Ecuador and Uganda;
- ii. To analyse the relationship between strategic investment of petroleum revenues and post-petroleum development in oil-rich economies;
- iii. To draw lessons for Uganda from Ecuador's environmental protection and conservation concerns; and
- iv. To inform Uganda's thinking and planning about the exit strategy informed by Ecuador's experience.

Pursuing the above-stated objectives is significant for Uganda and Africa need to

<sup>1</sup> Mahyash Saed Quresh, 2008, 'Africa's Oil Abundance and External Competitiveness: Do Institutions Matter?', International Monetary Fund (IMF) Working Paper No. 08/172, Washington DC: IMF .

learn vital lessons from other developing-world oil and gas economies, say in South America, about the relationship between governance of the petroleum sector and countries' socioeconomic development future. This learning helps countries to avoid the decades-old mistakes made by other countries in the sector for a useful grasp of the link between strategic choices in the oil and gas sector and national development after the resource has been exhausted is important for sustainability. Given the exhaustibility of petroleum resources, there is need to develop sectors like industrial manufacturing, tourism, agriculture, and services using oil and gas revenues, by providing physical and institutional structures for utilising oil revenues and exploiting oil-driven infrastructure developments (like roads, railways, ports, and urban enclaves) to develop other sectors of the economy. Finally, as the oil and gas industry evolves, demands for environmental protection and conservation mount.<sup>2</sup> Uganda faces similar challenges in the Albertine Graben.<sup>3</sup> Ecuador's experiences, therefore, provide useful learning-points for Uganda.

## Argument

Contemporary exploitation of petroleum wealth requires several considerations in the country's governance frameworks: (i) policy and legal provisions on management of transnational workforces and their changing cultures and attitudes in a global oil and gas industry<sup>4</sup>; (ii) demands for local content and national participation in the industry; (iii) energy and economic (productive) diversification given the volatility of the oil industry; (iii) ensuring that newly-discovered resources, such as in Uganda and Ghana, are produced in an economically and environmentally sound manner that allows the economy to meet its development needs while also offsetting natural field decline in a world of environmental and climate-change concerns. Other concerns include (iv) ensuring constructive engagements between producing countries, consuming nations, and energy companies to ensure mutual benefits between oil companies and endowed countries; (v) bridging distances between production sources and markets; (vi) ensuring reliable technological changes; and (vii) responding to the fluctuating oil and gas prices.<sup>5</sup> Responding to these issues requires foresight. To determine whether the country has addressed these issues, one must analyse the country's strategies and practices on institutional processes, efficiency, sustainability, and exit strategies. In each aspect the above considerations can be addressed. And from these aspects Ecuador provides useful lessons for Uganda. By drawing lessons from the more experienced oil-producing Ecuador for Uganda's nascent oil and gas sector, this paper reveals critical precautions Uganda needs to make to ensure sustainable petro-exploitation.

<sup>2</sup> Roldan Muradian, 2014. 'The demise of a new conservation and development policy? Exploring the tensions of the Yasuni' ITT initiative', *The Extractives Industries and Society*, 1 (2):284–291

<sup>3</sup> Uganda Safari Portal (USP), 2014 (26 June) 'Oil Vs. Tourism Development in Murchison Falls National Park', Online: USP [from <https://ugandasafariportal.wordpress.com/2014/06/26/oil-vs-tourism-development-in-murchison-falls-national-park/>], 31 Jan. 17)

<sup>4</sup> Kathryn Mearns and Steen Yule, 2009. 'The role of national culture in determining safety performance: Challenges for the global oil and gas industry', *Safety Science*, 47:777–785

<sup>5</sup> Harry J. Longwell, 2002. 'The Future of the Oil and Gas Industry: Past Approaches, New Challenges', *World Energy*, 5 (3):100–104

## Methodology

This paper is based on qualitative methodology. It underlines the importance of efficiency, sustainability, and an exit strategy for the oil and gas sector. Efficiency is seen in terms of end-in-mind investment of oil and gas revenues *to meet only those ends that satisfy the country's development needs*, that is, investing in objectively-defined ventures that bring medium- and long-term returns as opposed to luxurious and wasteful expenditure of petroleum revenues. Sustainability lays emphasis on cautious management of “irreplaceable natural resources”, such as oil and gas wealth. Irreplaceability implies *exhaustibility*, that is, wherever petroleum deposits are exploited they will be exhausted in future. Sustainability stresses well-being of future generations: gratification of present needs, using oil and gas revenues, may compromise future wellbeing, hence the need for careful and deliberate savings and strategic investment of these revenues to meet society's future needs. Exist strategy is related to the foregoing, and implies deliberate schema for entering and getting out of the oil and gas sector given the exhaustibility of the resource, volatility of the industry, and its sensitivities which demand that objectives be clearly formulated and exit done once these objectives have been met.

To provide pointers on how to craft and apply these approaches across space, this paper draws from Ecuador's experience to inform Uganda's oil-governance strategy by highlighting the trajectory, adaptation methods, and exit strategies the country has devised to maximise benefits from the sector. The author conducted desk research on existing studies on Uganda's and Ecuador's oil and gas sector, undertook field tours and observations of oil-sector developments in Uganda and Ecuador; interacted and exchanged with intellectuals from both Uganda and South America; and held discussions with experts from Norway, Uganda, and Ecuador. Critical analysis of practitioners' viewpoints and peer review processes supplemented these methods. Though this is not a detailed comparative case analysis, it is designed to draw lessons from the cases analysed despite the differences between Ecuador and Uganda. Attention is paid to the post-2006 period, a time when Ecuador seems to have made tremendous progress in managing the petroleum dependent economy, as observed in changes in infrastructure developments, diversification, priority investments, and balances between petroleum exploitation and environmental conservation. While Uganda's sector dates from 2006 when the country announced commercial reserves, implications for the future developments are also drawn.

## Major Findings

The paper reveals that Ecuador learnt vital lessons a little late but has made commendable strides since 2006 and has transformed its economy. Uganda can learn from earlier entrants in the sector, their practices, and experiences in order to exploit a good-starter advantage.<sup>6</sup> Ecuador of late realised the challenge of sustainability in its petroleum sector, and since 2006, undertook institutional reforms aimed at making the sector more

<sup>6</sup> Discussion with Norwegian expert, during the Oil for Development (OfD) Civil Society Dialogue, Hotel Africana, Kampala, 21 March 2017

productive. The sector has been turned into an engine for the broader socioeconomic transformation of society in order to ensure sustainable returns from petroleum wealth. This indicates that sustainability demands deliberate emphasis on *governance efficacy* in the oil and gas sector, which entails efficient management of industry processes, cautiously meeting present-day needs while investing for future generations, and devising an exit strategy from the industry. An exit strategy works best when it is planned and executed from the start of the industry.

Ecuador is trying to meet this triple challenge using four governance strategies: (i) institutional design and planning for oil-sector efficiency; (ii) balancing oil-sector developments with protection and conservation of natural and social environs; (iii) national and regional diversification of the economy and energy sector; and (iv) strategic investment of petro-revenues. When these strategies are factored in a country's *governance frameworks* for the petroleum sector – policies, laws, regulations and guidelines, contracts and agreements, institutional cultures and practices<sup>7</sup> – and infrastructure developments, essential predictability of behaviour and accountability of key stakeholders in the sector are guaranteed.

## **Conclusions and Key Lessons for Uganda**

Ecuador has realised greater benefits from its oil and gas sector since 2006 than during its past decades of petroleum exploitation. Its emphasis on institutional and structural reforms, local content and national participation, diversification of the economy and energy sector, utilisation of oil revenues to build infrastructure and provide political goods, and identification of strategic areas of investment for future generations are the key strategic choices which the country made since 2006. While the country may have received considerable Chinese funding in exchange for oil and gas products to achieve these development ends<sup>8</sup>, pre-2006 exploitation had the impact of making the country dependent on the sector and inefficient in other sectors. Uganda has made attempts to craft similar institutional forms, possibly displaying earlier learning than Ecuador did, thanks to the combination of political and bureaucratic goodwill and Norwegian support.

The lesson is clear: governments of oil-and-gas-rich countries, and the societies over which they rule, ought to not wait for negative impacts of the petroleum sector on the economy, environment, and socio-political configurations of their country. Instead, acting proactively, governments can learn important lessons on institutional design, zero-flaring of AG and related environmental cushions, strategic investment of petroleum revenues, energy and economic diversification, and promotion of meaningful local content and national participation in order to ensure efficiency and sustainability. Thus, the key lessons that can be specified from Ecuador for Uganda are that:

<sup>7</sup> Mahyash Saed Quresh, 2008, 'Africa's Oil Abundance and External Competitiveness: Do Institutions Matter?', IMF Working Paper No. 08/172, Washington DC: IMF

<sup>8</sup> This unverified concern was revealed to the author through interactions with ordinary Ecuadorians in Quito, November 2016.

- Unless well planned and developed, through national participation and periodic review and improvement of provisions in and practical operations related to governance frameworks, the oil sector may advantage foreign oil companies at the cost of national citizens.
- Institutional changes in the oil sector can be contentious, costly, and can generate sociopolitical problems for the country: they ought to be undertaken diligently, cautiously, and within the existing legal-constitutional order.
- Political will is a key driver of institutional reforms for increasing national presence and participation and control over the oil and gas sector. All competing political coalitions within a country ought to arrive at minimum consensus about management of petroleum-wealth.
- Via solid planning, institutional coordination, and leadership foresight, countries can *promote efficient behavior* in the petroleum sector, *diversify* other sectors, ensure equitable energy systems, and address other development bottlenecks.
- Overdependence on oil and gas sector can be disastrous to a country due to oil-price instabilities: as of 2013, between 50-60% of Ecuador's export earnings were derived from the oil sector. The sector provided approximately 30-40% of government revenues. Thus, Ecuador's dependence on a few export commodities that are subject to highly volatile price swings left it vulnerable to economic instability and is forcing the country to change its ways.
- National Oil Companies (NOCs) need legal obligations and political support to become efficient and adaptive to changes in the industry.
- Institutions evolve. They are affected by the existing politico-ideological order. Positive, developmental ideological continuity blesses oil-and-gas-rich countries.
- Uganda can craft a petroleum sector that co-exists with conservation-based tourism. For many years, despite controversial environmental damage, Ecuador was able to ensure coexistence between oil and gas and tourism sectors and is working steadily to develop and expand this sector.
- Contrary to the neoliberal orthodoxy's emphasis that state companies tend to be inefficient and corrupt, and that modern competitive advantage lies with private companies, Ecuador's experience so far indicates great potential for state-owned oil companies to perform commendably in the volatile petroleum industry given techno-scientific, institutional, and political adaptiveness.





*Amb Rene G. Ortiz, former Secretary-General of OPEC (1 Jan 1979 – 30 Jun 1981), giving remarks to the participants during the ELLA Study Tour, November 2016, Author's Photo.*

# Lessons for Uganda from Ecuador's Oil and Gas Sector.

# 1. Introduction

This paper forecasts the sustainability challenge in Uganda’s oil and gas sector by drawing lessons from the Ecuadorian experience. It reveals that Ecuador in the recent past realised the challenge of sustainability in its petroleum sector, and since 2006, undertook governance and institutional reforms aimed at making the sector more productive as an engine for the broader socioeconomic transformation of society. This indicates that sustainability demands deliberate emphasis on *governance efficacy* in the oil and gas sector. This *efficacy* entails efficient management of industry processes, cautiously meeting present-day needs while investing for future generations, and devising an exit strategy from the industry, which would best work when well planned and executed from the start of the industry. This triple challenge can be addressed using four governance strategies: (i) institutional design and planning for oil-sector efficiency; (ii) balancing oil-sector developments with protection and conservation of natural and social environs; (iii) national and regional diversification of the economy and energy sector; and (iv) strategic investment of petro-revenues.<sup>9</sup> When these strategies are factored in a country’s *governance frameworks* for the petroleum sector—policies, laws, regulations and guidelines, contracts and agreements, institutional cultures and practices<sup>10</sup>—and infrastructure developments, essential predictability of behaviour and accountability of key stakeholders in the sector are guaranteed.

## 1.1 Conceptual Issues

In this paper, “petroleum”, is interchangeable with “oil” and “oil and gas” unless a narrow use for “oil” is specified. Equally, *oil and gas wealth* is interchangeable with *petroleum-wealth* and *oil wealth*. Efficiency implies “success in producing as large as possible an output from a given set of inputs.”<sup>11</sup> The concept of efficiency as used here implies end-in-mind investment of oil and gas revenues in order to meet those ends that satisfy the country’s development needs. It is about investing resources in ventures that bring medium- and long-term returns, like economic, industrial, and social services infrastructure; technology acquisition/transfers and adaptation; inventions, innovations, and technology development and transformation. Investing in productive ventures specifically defined by relevant agencies is contrasted with luxurious and wasteful expenditure of petroleum revenues, investment in non-productive ventures (like housing and automobile purchases). This is not uncommon in countries flattered by petro-dollars which waste valuable time and oil revenues by spending unproductively, and expand unreasonably in relative sizes beyond

<sup>9</sup> These strategies are not drawn from any authority or piece of research work but reflect the author’s analysis based on the findings of desk and field research.

<sup>10</sup> Mahyash Saed Quresh, 2008, ‘Africa’s Oil Abundance and External Competitiveness: Do Institutions Matter?’, International Monetary Fund (IMF) Working Paper No. 08/172, Washington DC: IMF

<sup>11</sup> MJ Farrell, 1957. ‘The Measurement of Productive Efficiency’, *The Journal of the Royal Statistical Society*, 120 (3):253-290 (at p. 254)

the rate of economic expansion, such that “the more oil a country produces, the larger [is] its government.”<sup>12</sup> The resulting *Dutch Disease* is characterised by overvalued national currency<sup>13</sup>, expansion of government, “low rates of growth of the manufacturing industry, artificially high real wages, and unemployment”.<sup>14</sup> These afflictions stifle responses to immediate needs and strategic development interests, suffocate manufacturing sectors, attract inflation, consumerism and extravagance, catalyse the informal economy, lead to reduced non-oil revenue sources, and engender socio-political problems. This “**Oil-Sector Paradox**” or the “**paradox of plenty**”, underscores the irony that resource-rich economies are miserable despite their endowments.<sup>15</sup>

**Sustainability** here presupposes planning and working for both present and future needs. Exercising caution, responsibility, and foresight helps a country to cater for future externalities in the sector and economy. The logic of sustainability is rooted in the observation that oil-and-gas-rich countries may swim in revenues and forget long term investments while also degrading their environments. This would negate, even erase, future opportunities for post-resource continuity, change, and development. Sustainability is “concerned with the well-being of future generations and in particular with irreplaceable natural resources—as opposed to the gratification of present needs which we call well-being.”<sup>16</sup> This definition is relevant for this study because: (i) it stresses “irreplaceable natural resources”, such as oil and gas wealth, which can be exploited and then cease to exist in future; (ii) underscores well-being of future generations and the need for strategic planning and foresight in the management of exhaustible resources; (iii) and shows that using oil and gas revenues gratify present needs may compromise future wellbeing, hence savings and strategic investment of such revenues furthers the objective of meeting society’s future needs.

**Exit Strategy** originates in military thinking but has been applied in the business and policy world as well. Generally used, exit strategy implies a deliberate schema for entering and getting out of an environment, an operational space, or engagement that involves high-end sensitive activity, difficult choices and decisions, and targeted actions. It is about end-of-business thinking, planning, and working, which actors undertake when engaged in a purpose-driven process or activity. It follows that an exit strategy is a means, a deliberate, pre-planned means, of leaving the current situation especially after the objective has been achieved.<sup>17</sup> *In this enquiry, therefore, Exit Strategy for a nascent oil and gas sector cannot be time-oriented for it is difficult to ascertain at the beginning of the industry how much oil and gas deposits a country has, which technological*

<sup>12</sup> Ross, *The Oil Curse*, p. 27-28

<sup>13</sup> Michael Bruno and Jeffrey Sachs, 1989, *Energy and Resource Allocation: A Dynamic Model of the Dutch Disease*. NBER Working Paper No. 852: Cambridge MA: NBER (from <http://www.earthinstitute.columbia.edu/sitefiles/file/about/director/documents/w0852.pdf>, 16 January 2017)

<sup>14</sup> Luiz Carlos Bresser-Pereira, 2008. ‘The Dutch disease and its neutralization: a Ricardian approach’, *Brazilian Journal of Political Economy*, 28 (1) (109): 47-71

<sup>15</sup> Terry Lynn Karl, 1997. *The Paradox of Plenty: Oil Booms and Petro-States*, Berkeley and Los Angeles: University of California Press; Matthias Basedau and Wolfram Lacher, 2006. ‘A Paradox of Plenty? Rent Distribution and Political Stability in Oil States’, Hamburg: German Institute of Global and Area Studies, GIGA-WP-21/2006. Michael Watts, 2001, ‘Petro-Violence: Community, Extraction, and Political Ecology of a Mythic Commodity’, in Nancy Lee Peluso & Michael Watts, eds., *Violent Environments*, Ithaca and London: Cornell University Press, 2001, pp. 189-212

<sup>16</sup> *Ibid.*

<sup>17</sup> Michael D. Gilpin, Col., 1997. *Exit Strategy: The New Dimension In Operational Planning*, Pennsylvania: U.S. Army War College

*developments may in future affect the exploitability of the resource, and how world market and political conditions may influence the direction of the industry. What may be attempted is an “operational-composite” exit strategy, involving time estimations based on the amounts discovered, goal/mission orientation, and what I call “Context-Oriented” exit strategy. Context orientation is about adaptive and dynamic management of the oil and gas sector in order to enhance capabilities for responding to future exigencies as the industry unfolds. It has three dimensions: (i) the necessity and justification for further or continued investments in the oil and gas sector given prevailing market conditions and alternatives to petroleum products, such as alternative energy sources; (ii) costs and constraints associated with choices between continuity of the oil and gas industry and alternatives to hydrocarbons in a climate-change-sensitive world; and (iii) awareness about the exhaustibility of petroleum wealth and thus the need to plan for post-oil development and wellbeing.*

Despite the numerous undesirable experiences of different petro-states, few attempts have been made to draw lessons from global south oil producing countries to inform sectoral developments in nascent oil economies. Specifically, south-south knowledge exchange, drawing of lessons and experiences remains limited to analogous reflections on the institutional limitations in these global south polities to utilise their God-given wealth to transform their economies.<sup>18</sup> As a result, comparisons between younger and older petroleum economies that would provide policy-relevant learning-points for nascent oil and gas economies remain less well articulated. Some references have been made to the challenge of managing oil and gas wealth in countries like Nigeria, Angola and Venezuela.<sup>19</sup> Few lessons may have been drawn to inform thinking and planning for countries like Uganda and Ghana. The governance strategies new entrants in the sector need to adopt are not adequately addressed partly because of difficulties of: forecasting the impacts of the sector on an economy, comparing old with new entrants in the sector, and changing global context of the industry. Consequently, analyses of the oil and gas industry in Africa remain an “unfinished business”<sup>20</sup> yet an alternative approach ought to consider the key strategies that were either practiced (e.g. by Norway)<sup>21</sup> or neglected (e.g. by Nigeria)<sup>22</sup> by earlier entrants in the oil and gas sector and use them to inform policy and practice in nascent sectors. The key question here relates to the adaptability and transferability of petroleum governance experiences across different global south countries.<sup>23</sup> This paper addresses concerns about approaches that are antithetical to the ideals and interests of sustainable exploitation of petroleum wealth given the awareness that these resources are exhaustible and should provide the means toward—not the end of—socioeconomic and infrastructural transformation of the economy.

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<sup>18</sup> Quresh

<sup>19</sup> See, e.g.: John I. Hammond, 2011, ‘The Resource Curse and Oil Revenues in Angola and Venezuela’, *Science & Society*, 75 (3):348–378

<sup>20</sup> Jacques Lesourne and William C. Ramsay, eds., 2009, *Governance of Oil in Africa: Unfinished Business*, Paris and Brussels: IFRI

<sup>21</sup> Mark C. Thurber, David R. Hults, and Patrick R.P. Heller, 2011, ‘Exporting the “Norwegian Model”’: The effect of administrative design on oil sector performance’, *Energy Policy* 39: 5366–5378

<sup>22</sup> Augustine Ikelegbe, 2001, ‘Civil society, oil and conflict in the Niger Delta region of Nigeria: Ramifications of Civil Society for a Regional Resource Struggle’, *The Journal of Modern African Studies*, 39 (3):437-469

<sup>23</sup> Thurber, *et al*, ‘Exporting the “Norwegian Model”

## 1.2 Objectives, Significance and Justification

The goal of this paper is to draw lessons, from Ecuador's post-2006 governance of the oil and gas sector, for Uganda's nascent sector. To realise this goal, four objectives need to be achieved:

1. To examine the relationship between institutional processes and the development of the petroleum sector in Ecuador and Uganda;
2. To analyse the relationship between strategic investment of petroleum revenues and post-petroleum development in oil-rich economies;
3. To draw lessons for Uganda from Ecuador's environmental protection and conservation concerns; and
4. To inform Uganda's thinking and planning about the exit strategy informed by Ecuador's experience.

By underlining institutional design and evolution in Ecuador's post-2006 oil and gas sector, the paper feeds into analyses that stress the institutional dimension of oil governance. Institutions shape the strategic choices resource endowed states make and these choices have implications for sustainability, strategic investments, diversification of energy sectors and the economy, and using this wealth to increase the economy's competitiveness.<sup>24</sup> This approach helps in conceptualising the governance of the dynamic oil and gas sector, further inquiries in petroleum-sector adaptation strategies, comparative analysis on Africa and Latin America, and the evolving policy practices at national, regional, and global levels. The oil industry is associated with greenhouse gas emissions through flaring of associated gas (AG) and other carbon monoxide emissions, with resulting implications for global warming. New challenges now face the industry—the demand for alternative green energy; and the demand for zero AG flaring<sup>25</sup>—and present techno-scientific and policy problems for both the state and the market.

In terms of comparative analysis, contemporary exploitation of hydrocarbons requires several considerations relating to governance frameworks: (i) policy and legal provisions on management of transnational workforces and their changing cultures and attitudes in a global oil and gas industry<sup>26</sup>; (ii) demands for local content and national participation in the industry; energy and economic (productive) diversification given the volatility of the oil industry; (iii) ensuring that newly-discovered resources, such as in Uganda and Ghana, are produced in an economically and environmentally sound manner that allows the economy to meet its development needs while also offsetting natural field decline in a world of environmental and climate-change concerns. Other concerns include (iv) ensuring constructive engagements between producing countries, consuming nations, and energy companies to engender mutual benefits between oil companies and endowed

<sup>24</sup> Thurber et al, 'Exporting the "Norwegian Model"': Quresh, 'Africa's Oil Abundance and External Competitiveness'.

<sup>25</sup> Bjorn Hamso, 2015. Gas flaring: An industry practice faces increasing global attention: World Bank "Zero Routine Flaring by 2030" Initiative, Presentation at the 26th World Gas Conference, 1–5 June 2015, Paris.

<sup>26</sup> Kathryn Mearns and Steen Yule, 2009. 'The role of national culture in determining safety performance: Challenges for the global oil and gas industry', *Safety Science*, 47:777–785

countries. Bridging distances between production sources and markets; ensuring reliable technological changes; and managing oil-price fluctuations can also be challenging.<sup>27</sup>

These issues have ignited deep concerns and reflections on the nature and future of the industry, and the fate of new entrants in the volatile sector. *New entrants, therefore, are compelled to learn from pioneers in order that the ideas and lessons learned by earlier entrants may be appropriately replicated, refined, and applied by new entrants. Benchmarking, in the form of South-South learning and experience sharing in the petroleum sector, is becoming an important practice in this regard.* Uganda particularly, and Africa generally, need lessons from other developing-world petroleum economies, say in South America, about the relationship between the design of petroleum institutions, planning for oil-sector efficiency, and the link between strategic investment of petroleum revenues and economic development after the resource has been exhausted or become less dependable as a source of government revenue. These lessons can help countries to avoid the decades-old mistakes made by other countries in the sector. This is based on the awareness that petroleum is exhaustible and should catalyse the development sectors like industrial manufacturing, tourism, agriculture, and services. Instrumentalisation of petroleum wealth for development can be done by providing physical and institutional structures using oil revenues and/or exploiting oil-driven infrastructure developments like roads, railways, ports, and urban enclaves to develop other sectors.

Finally, as the oil and gas industry evolves, it is confronted with demands for environmental protection and conservation. Ecuador, for instance, now faces debates about the fate of Yasuni National Park, a highly biodiverse area, and how exploitation of oil in that part of the Amazon region threatens not only non-human biodiversity but also indigenous communities.<sup>28</sup> Uganda faces similar challenges in the Murchison Falls National Park and other areas.<sup>29</sup> How Ecuador is faring in this regard is a useful learning-point for Uganda given the combined—but apparently fruitless—civil society, academia and other efforts to save Yasuni. Therefore, Uganda needs to work toward the co-existence of petroleum and tourism/environmental conservation sectors.

## 1.3 Methodology

This paper is based on qualitative methodology. It focuses on key parameters on which lessons are drawn for Uganda from Ecuador: institutional processes, efficiency, sustainability, and an exit strategy in the oil and gas sector. Efficiency is measured in terms of preparations and practices for investing oil and gas revenues *to meet specifically-determined needs which satisfy the country's development interests*, and bring medium- and long-term returns as opposed to luxurious and wasteful expenditure of petroleum

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<sup>27</sup> Harry J. Longwell, 2002. 'The Future of the Oil and Gas Industry: Past Approaches, New Challenges', *World Energy*, 5 (3):100-104

<sup>28</sup> Roldan Muradian, 2014. 'The demise of a new conservation and development policy? Exploring the tensions of the Yasuni' ITT initiative', *The Extractives Industries and Society*, 1 (2):284–291

<sup>29</sup> Uganda Safari Portal (USP), 2014 (26 June) 'Oil Vs. Tourism Development in Murchison Falls National Park', Online: USP [from <https://ugandasafariportal.wordpress.com/2014/06/26/oil-vs-tourism-development-in-murchison-falls-national-park/>], 31 Jan. 17)

revenues.<sup>30</sup> Sustainability is about cautions in governance frameworks and practices that reflect cautious management of oil and gas wealth, emphasis on the well-being of future generations while also gratifying present needs, and savings and strategic investment plans and practices.<sup>31</sup> Exit strategy<sup>32</sup> is intricately linked to efficiency and sustainability, and implies entry into the oil and gas sector with a clear plan to get out of the sector when the fundamental objectives have been achieved, the sector becomes unreliable as a source of government revenue, and/or oil and gas reserves are exhausted. The paper draws from Ecuador's experience on these aspects to inform Uganda's oil-governance strategy.

Desk research on existing studies on Uganda's and Ecuador's oil and gas sector; field tours and observations of oil-sector developments in Uganda and Ecuador; and interactions and exchanges with intellectuals from both Uganda and South America were used. To these were added discussions with experts from Norway, Uganda, and Ecuador; critical analysis of practitioners' viewpoints; and peer review processes. This is neither a detailed nor standard comparative case analysis. But it is designed to draw lessons from the cases analysed and use them to inform thinking and practice in respective regions. Attention is paid to the post-2006 period: this is a time when Ecuador seems to have made tremendous progress in managing the petroleum dependent economy, as observed in changes in infrastructure developments, diversification, priority investments, and balances between petroleum exploitation and environmental conservation. Uganda's sector dates from 2006 when the country announced commercial reserves, but implications for the future developments are also drawn. By comparing a country that joined the oil industry relatively early and a more recent developing petroleum economy that is entering the development phase, this inquiry deepens our understanding of variations in petroleum governance over the years in the global south, and informs practical solutions to the challenge of developing frameworks and practices for managing the oil and gas industry.

Similarities between Ecuador and Uganda provide the basis for comparative examination of the trajectories of both countries. Both countries are *postcolonial; heterogeneous; are located in the global south; have socioeconomic, infrastructure, and technological underdevelopment at the beginning of their respective industries. There was initial reliance on foreign companies, their technologies, expertise, and capital, to exploit oil wealth in both countries. The presence of affected local communities in oil-rich areas, and location of oil resources in high biodiversity conservation and protected areas, typifies both countries.* The dynamics, timing, and experiences of colonialism may vary. But both countries experienced colonial control, are heterogeneous, face post-colonial underdevelopment, and experienced tensions between pro-conservation groups and

<sup>30</sup> MJ Farrell, 1957. 'The Measurement of Productive Efficiency', *The Journal of the Royal Statistical Society*, 120 (3):253-290; Amartya Sen, 1973, 'The Concept of Efficiency'. In Michael Parkin, Avelino Romeo Nobay, eds., *Contemporary Issues in Economics: Proceedings of the [annual] Conference of the Association of University Teachers of Economics*, Warwick, 1973, Manchester: Manchester University Press, pp. 196-210

<sup>31</sup> Robert Costanza and Bernard C. Patten, 1995. 'Defining and predicting sustainability', *Ecological Economics* 15: 193-196; Tom Kuhlman and John Farrington, 2010. 'What is Sustainability?', *Sustainability* 2 (11):3436-3448; UN, 1987. *Our Common Future: A Report of the World Commission on Environment and Development*, Oslo and New York: UN (from <http://www.un-documents.net/our-common-future.pdf>, 12 January 2017)

<sup>32</sup> Gilpin, *Exit Strategy*; Onur Bayar and Thomas J. Chemmanur, 2011. 'IPOs versus Acquisitions and the Valuation Premium Puzzle: A Theory of Exit Choice by Entrepreneurs and Venture Capitalists', *Journal Of Financial And Quantitative Analysis* 46 (6):1755-1793



pro-exploitation groups. Add this *similarity of contentions* to a period of postcolonial political instabilities that affected both countries' governance and state institutions.

## 1.4 Major Findings

The paper reveals that Ecuador learnt vital lessons about the institutional design, foresight and diversification implications of the oil and gas sector a little late. But the country has made commendable strides since 2006. Uganda can learn from earlier entrants in the sector, their practices, and experiences in order to exploit a good-starter advantage.<sup>33</sup> Ecuador of late realised the challenge of sustainability in its petroleum sector, and since 2006, undertook institutional reforms aimed at making the sector more productive. Petroleum wealth has been turned into an engine of the broader socioeconomic transformation of society in order to ensure sustainable returns from petroleum wealth. This indicates that sustainability demands deliberate emphasis on *governance efficacy* in the oil and gas sector, which entails efficient management of industry processes, cautiously meeting present-day needs while investing for future generations, and devising an exit strategy from the industry constitute the unbreakable chain of sustainability. An exit strategy works best when it is planned and executed from the start of the industry.

Few facts may be useful here to demonstrate Ecuador's changing fortunes in the context of dependence on oil and gas revenues: Ecuador's GDP per capita was US\$ 4400.8564 in 2006, increased to \$4264.1844 in 2008, then to \$ 4943.4471 in 2011, and to \$5291.4055 in 2013. By 2016 it stood at US\$ 6,248.1, which, when adjusted by Purchasing Power Parity, is equivalent to about 60% of the world's average. This is a country whose GDP was US\$ 222.3 in 1960. Compare with Uganda whose GDP was \$62.3 in 1960 and \$523.49 in 2005 but now stands at US\$675.6, that is, 5% of the world's average. One need not calculate percentage changes here to reveal that Ecuador outgrew Uganda considerably. The best comparison is with Angola and Nigeria, equally petro-states for about the same period as Ecuador's, and have experienced similar political instabilities with perhaps Angolan and Nigerian conflicts being more violent. Angola's GDP per capita was US\$ 3010.0653 in 2006, and stood at US\$4153.7722 in 2015, which is equivalent to 33% of the world's average. This also indicates commendable development in a decade. Nigeria's GDP was US\$1967 in 2005 and rose to \$2448.2 in 2016, which is 20% of the world's average—again indicating impressive development.<sup>34</sup> Both countries are below Ecuador, and performed far below it during the 2006-2016 decade. What happened? Political goodwill engendered the solid planning and institutional coordination that allowed Ecuador to *promote efficient behavior* in the sector, *diversify* to other sectors and develop equitable energy systems that transformed the energy sector and the economy during the past 10 years. Today, Ecuador leads the Latin American region in energy security and energy sovereignty, and ranks No.5 in global energy security and sovereignty. These changes resulted from proper utilisation of oil and gas revenues.

<sup>33</sup> Discussion with Norwegian expert, during the Oil for Development (OfD) Civil Society Dialogue, Hotel Africana, Kampala, 21 March 2017

<sup>34</sup> World Bank, 2016, *World Development Indicators*, 1960–2016, Washington DC: World Bank (available at: <http://data.worldbank.org/data-catalog/world-development-indicators>, 10 March 2016)

Ecuador's GDP growth averaged 4.3% between 2006 and 2014. This was driven by high oil prices and substantial external financing that increased government revenues. The government was enabled to increase social spending and invest in important sectors, especially energy, transportation sectors, and education. These expenditures led to decline in poverty from 37.6% to 22.5% during the same period, with corresponding Gini Index decreasing from 0.54 to 0.47 mainly because economic growth benefitted the poorest population. Thus, while deceleration and economic slowdown were experienced in 2014 due, in part, to decline in oil prices and the April 2016 earthquake on the Ecuadorian coast the reconstruction cost of which was estimated at 3% of GDP, Ecuador stabilised its current account through restrictions on movement of goods and capital. It also tried to protect investments and rationalize public spending in order to address the challenge of maintaining economic stability and improving the investment climate to attract a more robust private sector that would further diversify the economy, increase productivity, and create quality jobs for citizens. The World Bank, through the 2016 Country Engagement Note (CEN) for Ecuador, is working with Ecuador on a pillar on "Promotion of the Diversification of the Economy."<sup>35</sup> This is intended to reduce dependency on the petroleum sector.

This study maintains that Ecuador met these challenges using four governance strategies: (i) institutional design and planning for oil-sector efficiency; (ii) balancing oil-sector developments with protection and conservation of natural and social environs; (iii) national and regional diversification of the economy and energy sector; and (iv) strategic investment of petroleum-revenues. It is clear that when these strategies are factored in a country's governance frameworks for the petroleum sector—policies, laws, regulations and guidelines, contracts and agreements, institutional cultures and practices<sup>36</sup>—and infrastructure developments, essential predictability of behaviour and accountability of key stakeholders in the sector are guaranteed. Note that Ecuador delayed to formulate an institutional infrastructure for undertaking energy and economic diversification and efficient investment of oil revenues despite its low levels of environmental degradation over the years of exploiting petroleum. Consequently, the country became oil-dependent, suffering decline and underdevelopment in other economic sectors. Since 2006, however, Ecuador has performed impressively.

Commenting on the rapidity of this transformation, one observer stated: "I have never seen a country which in such a short time has made a turnaround in just ten years." This, he argues, has been a result of local people taking ownership, thinking through things, planning, and exhibiting determination to develop their economy.<sup>37</sup> Ecuador trounced oil-price fluctuations and the global financial and Eurozone crises, surviving a potentially

<sup>35</sup> World Bank, 2016 (03 Oct.), Ecuador: Overview, Washington DC: World Bank (from <https://www.worldbank.org/en/country/ecuador/overview#3>, 13 March 2017). the Bank has a portfolio of seven financing projects totaling to US\$868 million: Education Reform in Targeted Circuits; Wastewater Management in Guayaquil; Automated Irrigation Systems for Small and Medium-sized Producers in Ecuador; Improvement of Transport Infrastructure of Ibarra; Improvement of Public Services of Manta; Risk Mitigation and Disaster Recovery in Ecuador; and Quito Metro Line One. Additionally, the Bank has provided grants and technical assistance to support different government sectors and agencies.

<sup>36</sup> Mahyash Saed Quresh, 2008, 'Africa's Oil Abundance and External Competitiveness: Do Institutions Matter?', IMF Working Paper No. 08/172, Washington DC: IMF

<sup>37</sup> Berend van den Berg, 2016 (7th Nov. ), Presentation on "Reducing Dependence and Diversifying the Energy Matrix in Ecuador/ Creating Sustainability in a non-Renewable Energy Environment: the case of the OGE Project", Quito

deep and protracted recession.<sup>38</sup> This was possible because the country embarked on institutional re-design, diversification, social spending, infrastructure development and priority investments. Concurrent with emphasis on local content and national participation, new interventions have led to great success in Ecuador's economy, infrastructure, and oil and gas sector itself. But there are concerns about the environmental implications of exploiting petroleum deposits in the Yasuni National Park and Ethnic Reserve. These concerns raise ecological, biodiversity, indigenous rights, climate-change, and public health questions.<sup>39</sup> While not fully answered, these questions are informing policy and thinking about the future of the Ecuadorian economy under conditions of fluctuating oil prices. The country is slowly but progressively addressing these challenges at the behest of oil interests.

Uganda has, on paper, foregrounded minimum governance strategies for maximizing returns from the petroleum sector and to undertake investments that cater for the needs of future generations. Uganda should not wait for negative impacts of oil and gas sector on the economy, environment, and socio-political configurations of the Pearl of Africa. Instead, government can draw additional lessons to inform institutional development, environmental cushions like zero-flaring of AG, strategic investment of petroleum revenues, energy and economic diversification, and promotion of meaningful local content and national participation in order to ensure efficiency and sustainability. Uganda's laws provide for some of these cautions. Implementation is awaited. Restated at the end of the paper are recommendations on how to undertake these strategies.

The rest of the paper proceeds in three sections. The second section briefly examines the backgrounds to the Ugandan and Ecuadorian oil and gas sectors, stressing the institutional and contextual challenges that have been encountered. The third section draws upon Ecuador's experience to provide lessons for Uganda's oil and gas industry, placing emphasis on institutional design, environmental protections and safeguards, diversification, and exit strategy. The concluding section sums up the main issues and makes recommendations. A caveat here is worthwhile: traditional approaches to comparative research have not been exhaustively applied here except in as far as they provide lessons for Uganda from Ecuador—this being based on the understanding of the limits of comparative case analysis. Next is background to Ecuadorian and Ugandan petroleum sectors.

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<sup>38</sup> Rebecca Ray and Sara Kozameh, 2012, *Ecuador's Economy Since 2007*, Washington, D.C.: Center for Economic and Policy Research

<sup>39</sup> Lorenzo Pellegrini, Murat Arsel, Fander Falconi' and Roldan Muradian, 2014, 'The demise of a new conservation and development policy? Exploring the tensions of the Yasuni' ITT initiative', *The Extractive Industries and Society*, <http://dx.doi.org/10.1016/j.exis.2014.05.001>

## 2 Background to Uganda's and Ecuador's Petroleum Sectors

Uganda and Ecuador have different experiences because of variances in the times each entered the industry. In this section an attempt is made to briefly historicise the Ugandan and Ecuadorian oil sectors in order to underline the key efficiency, sustainability, and exit-strategy challenges faced by these countries. While it is too early to judge the Ugandan sector, attempts have been made to craft an institutional infrastructure that would inform progressive developments in the sector, despite the limitations in the efficiency and sustainability cushions due to expectations, political and bureaucratic corruption that affects general governance in the country, uncertainties associated with the sector, and the relative young age of organised institutions charged with managing the sector. The Ecuadorian sector started during the 1960s but did not help the country to socioeconomically and techno-scientifically transform itself, much like the rest of Latin America, hence the paradox of plenty. The post-2006 changes, however, have almost been revolutionary.

### 2.1 Brief Background – Uganda

Uganda's oil and gas sector is short-lived, though interest in the resource is a century-old phenomenon. The 19<sup>th</sup> century witnessed attempts to explore for possibilities of oil and gas wealth in then colonial Uganda, when E.J. Wayland, a geologist of the colonial government, undertook oil exploration and documented substantial amounts of hydrocarbons in western Uganda in what is today called the Albertine Graben.<sup>40</sup> In 1938, there was an attempt to drill some wells, wherein some hydrocarbons were encountered. The discovery, however, was not tested as Britain soon got enmeshed in World War II that started in 1939. During the 1940's and 1950's additional exploration was attempted, and several shallow wells drilled for stratigraphic purposes. Post-colonial attempts were also slow, owing, in part, to the many political-governance challenges the country faced between 1966 and 1986. In 1986 President Yoweri Museveni issued policy direction on capacity building, data acquisition and promotion, and monitoring of compliance of licensed companies. There were aeromagnetic surveys during the decade 1983-1992.<sup>41</sup> These surveys identified some of the very promising sedimentary basins—the Albertine Graben, Lake Kyoga basin, Hoima basin, Lake Wamala basin, and the Moroto-Kadam basin.<sup>42</sup> Post-1986 developments, especially explorations, data acquisition, capacity

<sup>40</sup> Uganda Oil and Gas Info. Ltd., 2009, 'History and Development of Oil, 2009, (Online: [www.ugandaoilandgas.com](http://www.ugandaoilandgas.com), accessed on 31<sup>st</sup> May 2012 and 21 October 2015); E.J. Wayland, 1925, 'Petroleum in Uganda', *Nature*, Vol 15, Issue 2904, pp. 980

<sup>41</sup> The first deep well, Waki B-1 well, was drilled in 1938 in Butiaba, present-day Buliisa district. Over 20 Shallow wells drilled in Kibiro and Kibuku areas for geological correlation. 2 Geological surveys carried out during the 1940's and 50's established the presence of sedimentary sequences of clays and silts. See: Rep. of Uganda, 2014. *The History and Progress of Petroleum Exploration and Development in Uganda*, Kampala: Directorate of Petroleum, MEMD (from [http://www.petroileum.go.ug/uploads/History\\_brief\\_20142.pdf](http://www.petroileum.go.ug/uploads/History_brief_20142.pdf), 21 Oct. 2015).

<sup>42</sup> Fred Kabagambe-Kaliisa, 2010 (15th Sept.). 'Developments in Uganda's Oil and Gas Sector and Opportunities for development'. Kampala: Ministry of Energy and Mineral Development

building, led to the declaration of commercially-viable oil and gas reserves in the Albertine Graben in 2006.

**Map 1: Location of Uganda's Oil Deposits**



*Source: NOGTEC, 2014<sup>43</sup>*

Although several companies participated in the exploration, three multinational oil companies were licensed to develop the sector: Total E&P, Tullow Oil (formerly called Energy Africa), and China National Overseas Oil Company (CNOOC). These companies constitute a Joint Venture Partnership (JVP). Post-2006 developments, therefore, involved mainly establishment of the governance frameworks for the oil and gas sector; establishment of organised institutions; inter-ministerial coordination and cooperation; and increasing interest from civil society and other stakeholders. Uganda consumes petroleum products to the tune of 27,000 barrels/day, while the whole of East Africa consumes close to 200,000 barrels/day. Consumption is growing at an annual rate of about

<sup>43</sup> NOGTEC, 2014 (06 Feb.), 'Uganda signs MoU with oil firms over production', Online (from <http://www.nogtec.com/uganda-signs-mou-with-oil-firms-over-production/>, 15 March 2017)

7%. This presents an opportunity to Uganda's oil and gas reserves with the confirmation of over 1.4 billion barrels of recoverable oil in the country.<sup>44</sup> Following the announcement of commercial oil reserves in 2006, the country has undertaken several developments: the National Oil and Gas Policy (NOGP), 2008<sup>45</sup>; legislations<sup>46</sup>; and instituting relevant agencies for the sector concurrent with private sector, civil society, and general public interest and debates about the nature and future of Uganda's nascent petro-sector ( See Table in Annex I).

Uganda is entering the development phase of its oil and gas sector after 2016. The country hopes to start exporting crude oil in 2020. It took the country a decade to reach this phase because of the need to first develop the minimum institutional infrastructure, local capacity, and policy, legal, and regulatory framework for managing the sector. This delay contrasts with Ghana. The country announced commercial reserves about the same time as Uganda but started production within five years. This occurred before the country developed the requisite institutional structures and capacity to manage key elements of the sector.<sup>47</sup> There may have been other political economy and regional issues which militated against rapid development of the industry as the land-locked country sought to negotiate its way toward building an oil refinery and pipeline.<sup>48</sup> The development of institutional infrastructure and other governance frameworks in no way guarantees that Uganda has provided sufficient cushions against the challenge. It reveals that the time spent to plan and craft these structures has been useful in managing expectations and benchmarking other countries.<sup>49</sup>

## 2.2 Brief Background – Ecuador

Native Ecuadorians knew and used petroleum for an unrecorded period in history. Knowledge about, and use of, oil is as old as the Ecuadorian natives have known. Coastal indigenous peoples especially around the Santa Elena peninsular near Guayaquil turned the black substance to tar and used it to caulk canoes, water-proof arms and utensils, and make torches for use in the nocturnal darkness of the Amazon. Later, the Spanish colonists used oil for tarring their own ships using the very methods used by native Ecuadorians. Pre-World War II output remained low, until a vigorous search was launched in the Amazon region in 1921 by Standard Oil of the USA which obtained concession to explore the area—and made insignificant discoveries. Commercial quantities date to the post-World War II era, having been found in 1967 by a consortium of Texaco and Gulf.

<sup>44</sup> Rep. of Uganda, 2014, *UGANDA'S Oil Refinery – An Opportunity For Transformation*, Kampala: MEMD (at <http://www.energyandminerals.go.ug/downloads/UGANDAOLREFINERY.pdf>)

<sup>45</sup> Republic of Uganda, 2008, *National Oil and Gas Policy for Uganda*, Kampala: Ministry Of Energy And Mineral Development

<sup>46</sup> Republic of Uganda, 2013a, *Petroleum (Exploration, Development and Production) Act*; 2013b, *Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act*; 2013; 2015, Public Finance Management Act, Entebbe: UPPC

<sup>47</sup> Sam Hickey, Abdul-Garafu Abdulai, Angelo Izama and Giles Mohan, 2015a, *The politics of governing oil effectively: A comparative study of two new oil-rich states in Africa*, ESID Working Paper No. 54, Manchester: The University of Manchester; Sam Hickey, Badru Bukenya, Angelo Izama, and William Kizito, 2015b, 'The political settlement and oil in Uganda', ESID Working Paper No. 48. Manchester: ESIDRC

<sup>48</sup> Luke Patey, 2015. 'Oil in Uganda: Hard bargaining and complex politics in East Africa', OIES Paper: WPM 60, Oxford, UK: Oxford Institute for Energy Studies

<sup>49</sup> Ugandareportedly benchmarked Nigeria's belated Local Content policy and was applauded for developing its policy before starting production. See Collins Olayinka, 2016 (15 June 2016). 'Uganda to adopt Nigeria's oil sector local content policy', Abuja: *The Guardian* (from <http://guardian.ng/energy/ugandatoadoptnigeriasoilsectorlocalcontentpolicy/>, 16 January 2017)

Both companies are now part of ChevronTexaco. Ecuador, at the time of discovery of commercial petroleum deposits, depended on agriculture, particularly production and export of bananas.<sup>50</sup>

By 1949, President Galo Plaza Lasso had come to the conclusion that Ecuador would not join the ranks of oil producing countries. Between 1938 and 1950, there were exploration activities in the Ecuadorian Oriente, a sparsely inhabited and badly accessible jungle area east of the Andes mountains. These explorations “resulted in negligible quantities of heavy oil or produced only water with or without a scum of tarry oil.”<sup>51</sup> In 1967, however, a Texaco Gulf Consortium discovered vast amounts of oil in the north of Sucumbio province. This led to the construction of a private-company-built and operated trans-Ecuadorian Oil Pipeline (SOTE), a 312-mile-long pipeline rising 13,000 feet from Nueva Loja in Sucumbio, over the Andes Mountains, and to the Pacific Ocean port of Balao in the country’s Esmeraldas province. For 25 years the pipeline was managed privately and was turned over to the state in 1992. From June 1972 to-date, Ecuador has been flowing with oil: by 2000, the pipeline which initially carried 250,000 barrels per day carried 360,000 barrels per day as production and demand increased.<sup>52</sup> Ecuador suspended its membership to the Organization of the Petroleum Exporting Countries (OPEC) in 1992, which it had joined in 1973, but re-joined in October 2007. Post-1972 developments raised profits for foreign companies and also led to significant damage to the environment and negatively affected indigenous communities.

Besides endless lawsuits with oil companies over environmental and indigenous rights implications of oil exploitation, Ecuador also experienced an unpredictable political period until late 2006 when President Rafael Vicente Correa Delgado came to power and worked to reorient the economy and politics of the country. Correa inherited several problems posed by political instabilities, pressures from different social and indigenous movements, environmentalist lobbies, underdevelopment, poverty and unemployment. Then the country was plunged in the global economic recession that started with the US financial crisis in 2008. Correa started by delivering his campaign promise of writing a new constitution, which, following drafting by an elected Constituent Assembly, acquired a 64% vote of approval in September 2008, coming into effect in October 2008. This was Ecuador’s 20<sup>th</sup> constitution. It increased presidential powers, and allowed the president to run for two consecutive four-year terms—hence the holding of new elections for President, Vice President, Members of the National Assembly (a unicameral legislature like Uganda’s), and provincial and local offices.

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<sup>50</sup> Judith Kimerling, 2006. ‘Indigenous Peoples and the Oil Frontier in Amazonia: The Case of Ecuador, ChevronTexaco, and Aguinda v. Texaco’, *International Law and Politics*, 38:663

<sup>51</sup> H. J. Tschopp, 1953. ‘Oil Explorations in the Oriente of Ecuador, 1938-1950’, *AAPG Bulletin*, 37 (10):2303-2347

<sup>52</sup> Allen Gerlach, 2003. *Indians, Oil, and Politics: A Recent History of Ecuador*, Wilmington: Scholarly Resources Inc., p. 33





Correa's relations with indigenous movements "point to the complications, limitations and deep tensions inherent in pursuing revolutionary changes within a constitutional framework".<sup>56</sup> These contradictions are inherent in post-neoliberal economic governance. But many social movements shared his view that Ecuador needed to develop and implement socioeconomic strategies that benefit the majority. Disagreements between some social movements and government on how to pursue these ends did exist, but in no way contrasted with, or weakened the import of, pursuing a common principle: using oil wealth to transform the economy. Pressure on government to stop exploitation and marginalisation of oppressed communities, while it did not strengthen Correa's opponents,<sup>57</sup> underlined the need to reorient the oil economy in order to benefit the people in a manner never before experienced. Ecuador was able to tread through the economic and financial difficulties that afflicted the global north during the 2008-2015 periods and embark on infrastructure development and diversification.

Ecuador was able to survive the 2008 Financial Crisis, the Eurozone crisis, and their spill-over effects for world consumption from oil-exporting countries. "With increasing state revenues due to the high prices of oil, and a smart renegotiation with oil companies, the state has increased social spending."<sup>58</sup> Ecuador is estimated to have lost only 1.3% of GDP during these recessions, but soon rebounded to pre-recession levels of output by 2011. This was mainly due to a fiscal stimulus that extended housing assistance programs to low-income households, the doubling of the amounts of housing finance in three years, a prudent monetary policy that kept interest rates low while requiring banks to keep at least 45% of their reserves in Ecuador, and a deliberate doubling of education funding.<sup>59</sup> As a result of these and other similar interventions, poverty and unemployment fell. School enrolment increased. Political stability unprecedented in 80 years of Ecuador's history followed as Correa became the first president to exceed five years in office under a democratic dispensation since "the last return to democracy, during the [equally short-lived] governments of Jaime Roldós and Osvaldo Hurtado (1979–84)."<sup>60</sup> The resulting rapid changes are observable throughout the country.

Renegotiation with oil companies allowed Ecuador to secure enhanced state control over the oil and gas sector, despite concerns that vast oil concessions covered large parts of the Amazon. The Yasuni-ITT Initiative, Ecuador's innovative proposal to leave hundreds of millions of barrels of oil beneath Yasuni National Park and Ethnic Reserve, was one of Correa's bargaining swings in the sector. The initiative resulted in current criticism that Ecuador is sacrificing biodiversity and rights of Amazon-inhabiting indigenous communities at the altar of petro-exploitation.<sup>61</sup> More than 50% of Ecuador's export

<sup>56</sup> Becker, *ibid.*, p. 47

<sup>57</sup> Marc Becker, 2013. 'The Stormy Relations between Rafael Correa and Social Movements in Ecuador', *Latin American Perspectives*, Issue 190, Vol. 40 (3): 43-62

<sup>58</sup> Carlos de la Torre and Jhon Antón Sánchez, 2012, 'The Afro Ecuadorian Social Movement: Between Empowerment and Co-optation', in Jean Muteba Rahier, ed., *Black Social Movements in Latin America: From Monocultural Mestizaje to Multiculturalism*, New York: Palgrave Macmillan, pp. 135-150 (at p.135)

<sup>59</sup> Rebecca Ray and Sara Kozameh, 2012. *Ecuador's Economy Since 2007*, Washington, D.C.: Center for Economic and Policy Research

<sup>60</sup> de la Torre and Sánchez, 2012. 'The Afro Ecuadorian Social Movement', p. 137

<sup>61</sup> Matt Finer, Remi Moncel and Clinton N. Jenkins, 2010. 'Leaving the Oil Under the Amazon: Ecuador's Yasuní-ITT Initiative', *BIOTROPICA* 42 (1):63–66; Lorenzo Pellegrini, Murat Arsel, Fander Falconi, and Muradian, 'The demise of a new conservation and development policy?'

earnings are derived from petroleum. The sector provides about 40% of government revenues – hence dependence on few commodity exports that are highly susceptible to price volatilities. This leaves the country vulnerable to economic instability. Therefore, an examination of the Ecuadorian experience should provide important lessons for Uganda's oil and gas industry. The following section underlines the importance of efficiency, sustainability and an exit strategy for oil-dependent economies, drawing lessons from Ecuador for Uganda.



*A visit to Petroamazonas' Central Processing Facility (CPF) in Block 15, Amazon Region, Ecuador, November 2016, revealed a miniscule of the Company's operations*

### 3 From Ecuador to Uganda: Efficiency, Sustainability, Exit Strategy

Attentiveness to efficiency, sustainability, and exit strategy in the oil and gas sector is dependent upon the general governance of the sector, a challenge that straddles decades, even generations, with complex changes occurring at different periodic junctures in the general environment. In Ecuador, this attentiveness remained elusive until revolutionary changes were instituted in the country in mid-2000s. Ecuador, a small oil-producing country with about 15 million people, is situated along the South American Pacific Coast, nested between Colombia and Peru, two of the major cocaine producing countries in the Andean region. But Ecuador is strategically important to the United States—both a major trans-shipment point for U.S.-bound illegal drugs, resting-point for Colombian armed groups (before the 2016 peace accords) seeking to rest, resupply, and transport drugs, and sanctuary for thousands of refugees fleeing Colombia’s internal conflict who enter the country through the porous northern border. Besides, Ecuador was, by 2012, the 11<sup>th</sup> largest supplier of crude oil imports to the United States, an important supplier of crude oil to the Western United States<sup>62</sup>, and home to the highly-biodiverse Yasuni National Park in the Amazon region.

Through solid planning, institutional coordination, and strategic repositioning, Ecuador stressed the *promotion of efficient behavior* in the energy sector, *diversification* of the energy sector, equitable energy systems, and is now looking forward to regional energy integration. Political will behind these changes led to the transformation of the energy sector and the economy in just 10 years: the resulting robust energy sector drives wealth creation and national development. Today, Ecuador is the region’s No.1, and the world’s No.5, in energy security and energy sovereignty. The restructuring of oil-sector institutions, enhanced state control over and regulation of the sector, diversification, and investment in strategic sectors, now define Ecuador’s economy. These interventions are intended to cushion the country against overdependence on the volatile sector, a view nascent oil-producing economies need to learn. One can refer to the idea that efficiency, sustainability, and an exit strategy in Ecuador’s oil and gas sector, are discernible from the governance strategies undertaken in the form of institutional redesign, management of environment and conservation pressures, diversification and strategic investment of oil revenues. A look at institutional design should provide a starting point for illustrating the strategy and drawing vital lessons for Uganda.

<sup>62</sup> June S. Beittel, 2013. *Ecuador: Political and Economic Conditions and U.S. Relations*, Washington DC: Congressional Research Service, p. 1

## 3.1 Institutional Processes and Oil-Sector Efficiency

Institutions are central to governance through several interlinked processes. First, rules of the game must be established or existing ones refined, revised, reformed. When this is achieved, a legacy of “how” things are done is created that reduces confusion on the tasks to be accomplished and responsibility holders. Second, when rules are organised into agencies, and other structures, they become visible and measurable, leading to predictability. Third, when enforcement of rules is undertaken and compliance monitored, it becomes easy to enforce accountability of role holders. This is nowhere more important than in the capital- and technology-intensive oil and gas sector, which oscillates between traditional business or private-sector entrepreneurship and politics. Laws alone on paper are not enough—systems of implementation and monitoring are equally important. This demands bureaucratic and political commitment to establish and consolidate institutional structures through which petroleum-sector operations are undertaken.



*Petroamazonas was formed and separated from Petroecuador, a major step in the redefinition of the state's role in Ecuador's oil and gas industry.*

Business processes in the petroleum sector, like exploration, production, refining, marketing, transportation, and export, require institutions to be effective in the service of the oil-endowed economy. The Ecuadorian oil and gas sector was, for many years, dominated by multinational enterprises—to which the hostility of host nations grew strong over the years.<sup>63</sup> These companies came at a time Ecuadorian institutions were underdeveloped.

<sup>63</sup> Mira Wilkins, 1974. 'Multinational Oil Companies in South America in the 1920s: Argentina, Bolivia *Business History Review*, Brazil, Chile, Colombia, Ecuador, and Peru', 48 (3): 414-446

Much of what became rules of the game were dictated by these multinationals. This created a cycle of dependence on foreign institutional forms, foreign capital, and foreign skills and expertise as opportunities for local capacity development became constrained due to preponderance of foreign interests in maximising returns from the sector. *Nascent oil economies had better take caution from these lessons: the development of domestic institutional capacity (via benchmarking and other innovative approaches), mobilisation of domestic capital to secure a stake in the sector, and development of local competencies, remain central to balancing foreign interests and national interests.*

**Figure 1: Institutions and Oil-Sector Development in Ecuador**

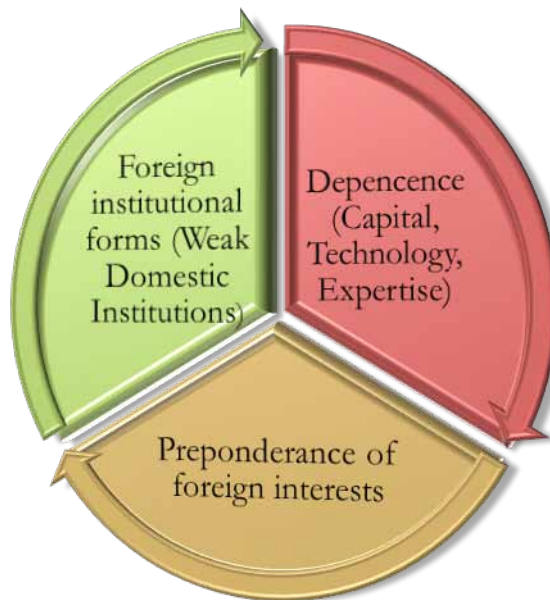


Figure 1 illustrates the relationship between the evolution of the Ecuadorian oil-sector institutions and the nature of evolving interests by the turn of the 20<sup>th</sup> century. This remained the case until the mid-2000s when political re-articulation of new institutional interests occurred. Few observations clarify this claim: first, commercial quantities of petroleum reserves in Ecuador were discovered in 1967 by a Texaco-Gulf consortium, indicating the centrality of multinational oil companies in the country's oil sector.<sup>64</sup> The rules of the game were set in favour of the consortium as Ecuador had limited capacity to develop, in a short time, strong governance frameworks for the sector. The oil began to flow in early 1970s. Second, Ecuador was underdeveloped when petroleum deposits were discovered. The country did establish a national oil company, Petroecuador, but the company lacked the technical and technological wherewithal to compete with US companies. This made the sector dependent upon western technology, skills, expertise, and capital. Dependence sacrifices domestic/national interests at the altar of foreign interests – what I call *preponderance of foreign interests*.

<sup>64</sup> Kimerling, 'Indigenous Peoples and the Oil Frontier in Amazonia'.

Third, although Ecuador joined global OPEC in 1973, its relationship with the organisation remained less well-entrenched: the country left the organisation in 1992, creating several decades of disconnect from the global oil bargaining space. Thus, OPEC did not provide the institutional space for stronger articulation of Ecuador's own oil interests. Ecuador re-joined OPEC in 2007. Moreover, within OPEC asymmetrical economic interdependence among member states made it difficult to use economic resources for political concessions. OPEC did not cushion its members against intra-organisational competition and infighting, which implied that Ecuador could not use it as a means of engaging the powerful western companies then exploiting the country's oil wealth. Finally, multinational corporations, western finance institutions, and competing Nation-State interests became centres of dispute between northern and southern polities<sup>65</sup>, and might have affected the country's political developments. During the 1990s, privatisation and liberalisation of the economies, in part following the Structural Adjustment Programs (SAPs), led to increased private-sector investment and an increase in petroleum production spurred by increasing international oil prices.<sup>66</sup> By 2007, therefore, a redesign of Ecuador's oil-linked institutional infrastructure was necessary for securing greater returns from the lucrative industry.

### **Ecuador's Institutional Re-Design since 2007**

- ★ Renegotiation of oil concessions with multinational oil companies
- ★ Situation of the country's stake in the sector through state-owned oil companies (NOCs); reconstitution of NOCs
- ★ Establishment of inter-agency frameworks for efficient management of oil revenues for diversification and strategic investment
- ★ Establishment of measures for managing social and environmental concerns

Although Brazil, Colombia, and Peru strengthened their institutional frameworks and property rights of private oil producers ahead of their regional peers<sup>67</sup>, Ecuador's institutional design involved: (i) renegotiation of oil concessions with multinational oil companies; (ii) reconstitution of the country's stake in the sector through the state-owned oil company; and (iii) establishment, at state level, of inter-agency frameworks for efficient management of oil revenues concurrent with management of social and environmental concerns. Although these renegotiations had been attempted during the 1972-1984 period<sup>68</sup>, the post-2006 change of political leadership brought more focused actors with nationalist objectives and with the will to achieve them.

The renegotiation of oil concessions with multinational oil companies was intended to increase the government's stake in the lucrative industry. This would reduce national losses at the expense of the multinationals who had invested in the country for almost

<sup>65</sup> Richard Stuart Olson, 1979. 'Economic Coercion in World Politics with a Focus on North-South Relations', *World Politics* 31 (4): 471-494

<sup>66</sup> Osmel Manzano and Francisco Monaldi, 2008. 'The Political Economy of Oil Production in Latin America', *Economia* 19 (1):59-103

<sup>67</sup> Manzano and Monaldi, p. 59

<sup>68</sup> See John D. Martz, 1987. *Politics and Petroleum in Ecuador*, New Brunswick NJ: Transaction Books, p. 396

half a century. It was also intended to redirect the country's political-ideological milieu informing the institutions of governance, for there had been oscillations between neoliberalism and nationalism in the management of the Latin American oil and gas sector. Ecuador needed clear policies on energy security and sovereignty, wanted to overturn the neoliberal agenda, and sought to construct a new national agenda in the sector. The process was also intended to strengthen policy, legal, regulatory and other institutional and organisational frameworks in order to institute rigorous processes for measuring different performance aspects of the sector and redefine its relationship with other sectors.<sup>69</sup>

The Ecuadorian experience underscores the need to ensure that all measures and assessments of local content and national participation are rigorous: It was difficult for many years for Ecuadorian institutions to determine the percentage of the products imported or produced by local suppliers in order for us to determine the localness of local content. Thus, calculating local content requires an in-depth inquiry in the productive capacity of local companies, for there can seem a façade of high-level local content while this content is itself foreign.<sup>70</sup> Petroecuador, later with Petroamazonas, played the role that national oil companies and regulatory institutions play in promoting national participation and regulating local content practices: holding the country's stake in the sector.

The reconstitution of the country's stake in the oil sector entailed redefining the role of the national oil company, Petroecuador, as a major institutional player in the sector. In 2006, Petroecuador assumed production assets of Occidental Petroleum after the expiry of the latter's contracts. Government pressured the company to adopt market-like operations and efficiency. In 2009, following a tax dispute, Ecuador also expropriated two blocks which had been assigned to Perenco. Meanwhile, Chevron was involved in lengthy legal battles with Ecuadorean plaintiffs. In February 2011, an \$18 billion judgment—later reduced to \$9.5 billion—was rendered against Chevron by an Ecuadorian court for alleged contamination through Texaco's crude oil production in the region between 1964 and 1990 (Texaco was later acquired by Chevron). In 2014, a US Court ruled that the \$9.5 billion Ecuadorian judgment resulted from fraud and racketeering, finding it unenforceable.<sup>71</sup> Ecuador needed to change its fortunes.

Over the years, the national oil company made progress. It forged partnerships with foreign companies to build capacity. By the mid-1970s, Petroecuador had become the majority owner in a consortium with Texpet. Its stake gradually increased until the company assumed full control in 1990. But Petroecuador was not only inefficient; it was irresponsive to environmental protections, tallied “more than 1,400 oil spills since 2000 alone.”<sup>72</sup> It was claimed that “for over 30 years, Petroecuador has done absolutely nothing

<sup>69</sup> Gerlach, *Indians, Oil, and Politics*

<sup>70</sup> Observations by Juan José Herrera during Study Tour to Ecuador, November 2016.

<sup>71</sup> United States District Court - Southern District of New York, 2014. *Chevron Corporation (Plaintiff) – against - Steven Donziger, et al (Defendants)*, Case 1:11-cv-00691-LAK-JCF Document 1874 Filed 03/04/14 Court Ruling (available at <http://www.theamazonpost.com/wp-content/uploads/Chevron-Ecuador-Opinion-3.4.14.pdf>, 20 January 2017)

<sup>72</sup> Chevron Corporation, No Date. 'Texaco Petroleum, Ecuador and the Lawsuit against Chevron', Online [from <https://www.chevron.com/-/media/chevron/ecuador/documents/texacopetroleumecuadorlawsuit>, 20 January 2017)

to remediate those pits under its responsibility.”<sup>73</sup> The state oil company itself needed regulatory pressure to enforce compliance with oil-sector and environmental rules of the game. The rules of the game themselves needed to be strengthened.

The establishment of inter-agency frameworks for efficient management of oil sector followed the realisation that Ecuador depended on oil revenues yet the industry is unpredictable. Coordination between state ministries and agencies was important here. Instead of sectoral–institutional separatism, Ecuador realized the need to coordinate the efforts of various players in the sector toward a common goal. Ecuador demonstrates the importance of creating an ecosystem whereby the networks, constituted through national committees for quality control, for instance, can help in monitoring and measuring local content practices and outcomes.<sup>74</sup> These measures answered the question of how countries can manage and maximize benefits from *their own* oil and gas resources. By strengthening the institutional capacity and mandate of regulatory institutions to make follow-up on commitments and promises of oil companies, the state, and the rest of the society, these measures constituted a process of continuous learning and adaptation. This allowed Ecuador to ensure consistency in oil-sector governance by matching through processes from baseline scenarios to target endpoints.<sup>75</sup>

Much of Ecuador’s post-2006 reforms fell under the 2008 constitution which stresses principles of good life, enforcement of rights, precautionary principles, right to nature, and other principles. These principles were intended to ensure sustainable coexistence between people and nature: “Nature or *Pachamama*, where life is reproduced and exists, has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution...”<sup>76</sup>. The Constitution defined Ecuador as a socio-democratic and secular state. It specified people’s, and the state’s, sovereign claim over natural resources thus: “Sovereignty lies with the people, whose will is the basis of all authority, and it is exercised through public bodies using direct participatory forms of government as provided for by the Constitution. Non-renewable natural resources of the State’s territory belong to its inalienable and absolute assets, which are not subject to a statute of limitations.”<sup>77</sup> The state is responsible for “planning national development, eliminating poverty, and promoting sustainable development and the equitable redistribution of resources and wealth to enable access to the good way of living.”<sup>78</sup> It is liable for managing the country’s oil wealth in a manner that ensures [at least minimum] regulation and control over the resource for the benefit of the people.

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<sup>73</sup> Bret Stephens, 2007 (30 Oct.), ‘Amazonian Swindle’, The Wall Street Journal [Online: <https://www.chevron.com/documents/pdf/texacoamazonianswindle.pdf>, 20 January 2017]

<sup>74</sup> Observations in Ecuador, November 2016

<sup>75</sup> Berend van den Berg, ‘How to Develop a Baseline Scenario’, Training on *Zero Routine Gas Associated Gas Flaring*, Quito, Ecuador, October, 2016.

<sup>76</sup> República del Ecuador, 2008. *Constitution of the Republic of Ecuador* (Quito: Official Register October 20, 2008), Art. 71

<sup>77</sup> *Ibid.*, Art. 1

<sup>78</sup> *Ibid.*, Art. 1(5)



*Solid planning and institutional coordination has led to the transformation of Ecuador's energy sector in just 10 years, with a robust energy system that drives wealth creation and national development. Ecuador is Latin America's No.1 energy secure and energy sovereign country, and the world's No. 5 in energy security and sovereignty. One wonders what had happened to the country prior to 2006. What is Uganda/East Africa doing to achieve the same or use the oil industry to build the infrastructure that will help East Africa develop after oil and gas exhaustion?*

The starting point for understanding the institutional and governance redefinitions of the Ecuadorian oil sector is a brief synthesis of political will. Political will informed the Ecuadorian state's desire to meet specific political objectives: (i) using the country's resources, especially oil revenues, to finance expanding social expenditures; (ii) speeding up the paying off of debts owed to northern financial institutions, which would reduce dependency on Washington-based institutions, their structural policy conditions, and their interventions which are believed to be motivated by US interests; and (iii) constituting a post-neoliberal politico-economic balance between public and private gains and control following the nationalist realisation that "neoliberal policies had been overgenerous to foreign investors."<sup>79</sup> Buoyed by high global petroleum prices, Ecuador increased its public sector investment from around 2006, about the time Uganda and Ghana announced commercially-viable oil reserves.

When Rafael Correa Delgado became president, he instituted serious reforms. First, he worked on a new Constitution which materialised in 2008. Second, Correa introduced austerity measures that, at the beginning, were unpopular with some Ecuadorans: as the 2008-2009 financial crisis wreaked havoc on American economies, some military and police personnel protested against cuts to benefits for public servants on 30 September 2010 in what was considered a coup attempt. But Correa, despite being injured by teargas as he addressed some of the protesting police, survived the storm thanks to the continued support from mainly some elements in the military leadership. Austerity measures are not without their own costs and political risks.<sup>80</sup> Finally, government, between 2007 and 2010, undertook a deliberate effort to increase oil revenues. This measure was hardly inconsistent with the country's social-democratic constitution.

The country set up new rules by redefining and developing new contracts requiring several extraction companies to invest in Ecuador on better terms for Ecuador. This arrangement as President Correa is quoted to have stated, was intended to ensure that "The biggest part of petroleum revenues must go toward the owners of the resource, the Ecuadorean people."<sup>81</sup> This was supposed to mark the beginning of a shift from production sharing agreements (PSAs) to new production contracts which were supposed to be controlled

<sup>79</sup> Barbara Hogenboom, 2012, 'Depoliticized and Repoliticized Minerals in Latin America', *Journal of Developing Societies* 28 (2):133-158 (at p. 148-9)

<sup>80</sup> BBC, 2010 (1 Oct.), 'Ecuador declares state of emergency amid "coup attempt"', London: BBC (from <http://www.bbc.com/news/world-latin-america-11447519>, 8 February 2017)

<sup>81</sup> Reuters, 2014 (24 Nov.), 'Ecuador to start takeover of Petrobras assets', Quito: Thomson Reuters (from <http://af.reuters.com/article/energyOilNews/idAFN2420447420101124>, accessed 7 February 2017)

by the state-owned Petroecuador. Companies like Repsol (Spain), Eni (Italy) Andes Petroleum and PetroOriental (China), and Chile's state-owned energy company, ENAP, agreed to these rules. When Petrobrass (from Brazil) refused these new rules, its assets were acquired by the state.<sup>82</sup>

In October 2007, President Correa issued an oil decree. The decree increased the state's share of oil revenues from 50% to 99% for companies which were unwilling to switch from PSAs to new service contracts. The new contracts would be controlled by the state-owned Petroecuador. Five multinational oil companies entered into negotiations with the government. Before they agreed to switch to service contracts within two years, Correa shortened the proposed transition period to just six months, the causes of which shift remain unclear. Although oil companies had experienced problems investing in the Ecuadorian oil industry, due to the country's chronic instability and tendency for conflicts between the state or communities and with private producers, Correa was not moved by companies' fear of Ecuador's socio-political conditions. This standpoint bordered on potentially unsafe policymaking for an unstable economy. But Correa's insistence and companies' intransigence did not cripple the industry as some observers expected.

President Correa further supported his predecessor government's 2006 decision to terminate Ecuador's contract with the U.S. oil company, Occidental Petroleum (Oxy), over an alleged breach of contract. This controversial move underwent several legalistic battles and dispute settlement, as demonstrated in the coming paragraph. In November 2007, Ecuador initiated new legal proceedings against another U.S.-owned oil company, Occidental and City Oriente, for allegedly failing to pay their windfall oil taxes. These disputes demonstrated the country's desire to reclaim its control over its oil wealth, its readiness to change the rules of the game, and its willingness to stand by the new order created by herself.<sup>83</sup> Correa sought to address the many *obstacles in the unstable, unreliable, unpredictable oil industry*. He prioritised infrastructure development, energy security and sovereignty. He demanded operational efficiency upon assuming production assets of Occidental Petroleum after the expiry of the latter's contracts, pushing for market-like operations and efficiency of Petroecuador. Withstanding legal battles with Chevron (later Chevron Texaco), Ecuador realised the need to change its fortunes without breaking its backbone. This would be achieved through strengthening its institutions.

Through solid planning and institutional coordination, Ecuador stressed the *promotion of efficient behavior* in the energy sector, *diversification* of the energy sector, equitable energy systems, and is now looking forward to regional energy integration. Political will led to the transformation of the energy sector and the economy in just 10 years: a robust energy is the driver of wealth creation and national development. Today, Ecuador is the region's No.1 energy secure and sovereign country, and the world's No.5 in energy security and sovereignty. But challenges remain.

<sup>82</sup> Reuters, *ibid.*

<sup>83</sup> Clare Ribando Seelke, 2008 (21 May), *Ecuador: Political and Economic Situation and U.S. Relations*, Washington: CRS Report for Congress

Interactions with Boris Davalos, an official from the Ecuadorian ministry of strategic sectors, revealed that when government recovered control over the energy sector, a process evolved that would lead to tremendous change in the country's fortunes. Ecuador generated high revenues for investment in other sectors, which allowed for the diversification of the energy sector. By 2006, Ecuador spent hundreds of millions of dollars to import energy from Colombia. By 2016, the country exports more than 3 times it imported in 2006. There were, on average, 170 unscheduled stops to the refinery operations due to black-outs! Today the refinery operates at full capacity, producing 110,000 barrels per day with a 30-year supply life. More refineries are being planned thanks to stable electricity supply and technologies for turning AG into electricity that is used to power the refineries. Today, a "marshal plan" on energy and electricity, 2016-2040, is in place. The plan is intended to sustain the country's development goals through energy self-sufficiency.<sup>84</sup>

*It appears as though 21st century socialism has returned in Latin America following the failure of SAPs. People's demands, state demand for autonomous control over natural resource endowments as stated in the Ecuadorian constitution, and the challenge of provision of political goods, have all driven this redefinition of the rules of the petro-extraction game. Trade regimes had to change. Morals of extraction and exploitation for national development were instituted. Ecuador had to address social tensions: there were reactions from affected indigenous communities, who believed that underground resources beneath their homelands, are up for exploitation not on their behalf but on behalf of capitalist interests. The resulting contention between Ecuador and oil companies can thus be understood*

**(Ivan Narvaez, Panel Presentation: Extractive Nationalism in Latin America,, Quito: FLACSO, presentation during Study Tour, 8 Nov. 2016)**

The redefinition of relations between the state and oil companies went concurrently with new plans for the oil sector. In addition to the establishment of coordination responsibilities in state structures, government operations in the oil sector were also redefined. Public-private partnerships remain important, as the region/country oscillates between nationalisation and privatisation and a combination of both. In Ecuador the state's role was divided between two companies in order to increase government's own efficiency: Petroecuador and Petroamazonas. During the 1972-1990 period, the government's stake in the industry was dominated by Petroecuador. The company suffered bureaucratic inefficiencies, as many parastatals do, and hardly operated as a profit-oriented entity. The company birthed Petroamazonas which was also given operational autonomy. The new company adopted the processes, structures, skills and experience of Occidental, and utilized them as a real private-sector company. This allowed Petroamazonas to grow and become efficient. It is now considered to be more efficient than Petroecuador, its parent company, and an emblematic symbol of local content, national participation, and ownership of the country's oil sector. Conflicts did arise between the two state companies.

<sup>84</sup> Discussions to the Grupo Faro Study Tour Team, Nov. 2016

A meeting between President Correa and top leaders of both companies led to the constitution of these companies into a single value-chain. The meeting resolved that each company be assigned specific areas and levels of engagement: Petroamazonas is involved in upstream processes (exploration, development, production) in the Amazon region; while Petroecuador handles downstream processes (marketing, commercialisation, exportation), which has allowed it to also acquire a private-sector mentality.<sup>85</sup> The two companies constitute a considerable stake of the government in the industry. By 2010, the fully constituted Petroamazonas became a 100% state-owned company. So is Petroecuador. Both companies were established by different laws, at different times in the history of Ecuador's petroleum sector. Both are state-funded, though funding has been lowering and Petroamazonas now lacks enough money to engage in exploration work. About 12% of its profits are supposed to be re-invested in the Amazon forest region, where most blocs are located.<sup>86</sup>

Despite some weaknesses in these institutional innovations, such as limited access to information, weak transparency mechanisms, and weak civil society, investment in human capital, research and education has been important since 2007. Scholarships are offered to Ecuadorians to study abroad on condition that they return to the home country. Ecuador's new governance frameworks—including a new oil contracts system (stressing service contracts, unlike PSAs), legal insistence that oil and gas wealth belongs to Ecuador, participation of well-defined state institutions, and subnational distributional mechanisms (such as royalties to affected communities)—have changed the productive matrix (after realizing the need to reduce dependence on oil revenues through knowledge production, investment in other sectors). This necessitated new plans for the diversification of the energy sector to alter the country's dependence on petroleum.<sup>87</sup> These measures indicate Ecuador's evolving petro-governance. Although government seems to have spent oil revenues in a manner that meets the short term needs of the people, Ecuador's social spending and artificial economic growth buoyed by the oil and commodity boom depended on these institutional foundations.<sup>88</sup> It is desirable that oil prices remain stable or high, long enough to support the development and maturity of other sectors and hence reverse the country's dependence on petroleum revenues. If Ecuador acquired near sectoral parity between oil and gas and other sectors (say agriculture, industrial manufacturing, ICT, tourism, and services), it would become one of the world's most resilient economies.

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<sup>85</sup> Juan Jose Herrera, 'Introduction to the Latin American and Ecuadorian Extractive Sector', 7 Nov. 2016. Herrera heads the Extractives Industry Program at Grupo FARO.

<sup>86</sup> Herrera.

<sup>87</sup> Herrera, 'Introduction to the Latin American and Ecuadorian Extractive Sector'. Also see: June S. Beittel, 2013 (June), *Ecuador: Political and Economic Conditions and U.S. Relations* - CRS Report for Congress Washington DC: Congressional Research Service, pp. 4-5

<sup>88</sup> Roger F. Noriega, 2015, *Ecuador: Is there a future beyond Correa?*, Washington DC: American Enterprise Institute (see <https://www.aei.org/wp-content/uploads/2015/10/Ecuador-Is-there-a-future-beyond-Correa.pdf>, 8 February 2017)



*The pristine Amazon rain forests, viewed from the Andes Mountains*

## Lessons for Uganda

Uganda can draw important lessons from Ecuador in terms of institutional coordination, oversight, and monitoring and enforcement of compliance. So far, Uganda has made three achievements in institutional evolution.

- ★ First, Uganda recognised the potential for oil and gas deposits and institutionally assigned the mandate to the ministry of energy and mineral development (MEMD). The ministry then undertook the development of minimum capacity for oil-sector operations that informed subsequent institution building. This allowed the country to constitute a relatively strong team of knowledgeable bureaucrats, who, kept afloat by political will, were able to mount serious negotiations with oil companies. Although critiques may argue that oil-related decision-making and action has been concentrated with the presidency and a small group of bureaucratic elites connected to the president, their cohesion has been useful in ensuring institutional coordination, cohesion, and provided the starting point for the wider local-content-related capacity building.<sup>89</sup>
- ★ Second, Uganda was quick to evolve its Petroleum Unit in the ministry of energy and mineral development to a department and now directorate (as of 2016). Later, the Uganda National Oil Company (UNOC) and the Petroleum Authority of Uganda (PAU) were established. The PAU is mandated to regulate Uganda's petroleum sector. Independent and self-accounting, the authority is responsible for licensing, regulation, supervision of exploration, harvesting, refining, marketing, and disposal of petroleum products in the country.<sup>90</sup> The UNOC, a limited liability company, represents national participation through legislated institutional structures. Capacity building, financing, and operational efficiency are the greatest challenges facing the two institutional establishments.
- ★ Third, the foregoing formations were specified in governance frameworks. The NOGP's stated goal is to "use the country's oil and gas resources to contribute to early achievement of poverty eradication and create lasting value to society", through efficient resource management, transparency and accountability, competitiveness and productivity, protection of the environment and biodiversity, spirit of cooperation [with regional and international actors], investment promotion, and capacity and institution building.<sup>91</sup> Legislations based on this policy led to the establishment of relevant institutional structures. The directorate of petroleum comprises of the upstream, midstream, and downstream departments. It is staffed with relatively qualified officials, thanks to Norwegian support.<sup>92</sup> Similar capacity considerations informed appointments to PAU and UNOC, for the directorate was the nucleus for these institutional structures (Annex III).

<sup>89</sup> Sam Hickey, Abdul-Garafu Abdulai, Angelo Izama and Giles Mohan, 2015a, *The politics of governing oil effectively: A comparative study of two new oil-rich states in Africa*, ESID Working Paper No. 54, Manchester: School of Environment and Development, The University of Manchester

<sup>90</sup> Republic of Uganda, 2013, *The Petroleum (Exploration, Development and Production) Act, 2013*, Entebbe: Uganda Printing and Publishing Corporation

<sup>91</sup> Republic of Uganda, 2008, *National Oil and Gas Policy for Uganda*, Kampala: Ministry of Energy and Mineral Development (MEMD)

<sup>92</sup> Republic of Uganda, 2010, *Strengthening the Management of the Oil and Gas Sector in Uganda: A Development Programme in Co-operation with Norway*, Kampala: MEMD, p. 13

Government realised, early enough, that “if the legal and regulatory framework were not in place, management of the oil industry in the country to date would have been difficult”<sup>93</sup>, and that the 1993 regulations needed to cope up with changes in the sector. The NOGP was enacted to address these regulatory gaps. The policy was followed with Acts of Parliament, particularly on exploration, development, and production; on refining, conversion, transmission, and storage; and public finances (oil revenues) management. These laws birthed the PAU and UNOC, make provisions for the establishment of: Petroleum Fund, Sovereign Wealth Fund, Petroleum Investment Reserve Fund, and the Petroleum Resources Investment Committee. As of February 2017, the Local Content and Resettlement Policies are being developed, indicating evolution of relevant governance frameworks. Thus, while analysts warn against centralisation of key decisions in the sector with the presidency<sup>94</sup>, potential for oil-driven conflicts,<sup>95</sup> politicisation of the sector<sup>96</sup>, and possibilities of political and bureaucratic corruption and collusions that sidestep the law to extract monetary and other benefits for a select few<sup>97</sup>, existing governance frameworks provide starting-points for evolving an efficient and sustainable sector. These warnings are not without basis. Ecuador may have lost opportunities between 1967 and 2007 due to similar afflictions. Hence, important lessons can be fleshed out for Uganda:

- While executive oversight and direction may be important in the initial stages of the sector, institutional planning and capacity development should be a continuous process, that outlives, and is autonomous from, specific political executives holding offices at any particular time. Merit, skills, and expertise, not political expedience, should guide institutional evolution and efficiency.
- Allowing other state institutions that provide oversight over oil-sector operations to operate with limited executive overlordship promotes checks and balances. When Correa is no longer Ecuador’s president (from 2017) the country retains its oil-governance challenge and post-Correa institutional coordination and oversight holds the key to sustainability, efficiency, and exit strategy.
- Coordination of institutional efforts is key to institutional efficiency, productivity, and checks and balances. Isolation of institutions tends to create institutional group-think and stagnation of innovation.
- Like Ecuador did, the review and overhaul of NOCs and other institutions, and redefinition of mandates of these establishments, is very important during the lifetime of the sector. Governance frameworks and the institutional structures embodying these frameworks must be adaptive, dynamic, and subject to periodic assessment and evaluation.

<sup>93</sup> Republic of Uganda, *Strengthening the Management of the Oil and Gas Sector in Uganda*, p. 13

<sup>94</sup> Sam Hickey, Badru Bukonya, Angelo Izama, and William Kizito, 2015b, ‘The political settlement and oil in Uganda’, *ESID Working Paper No. 48*. Manchester: Effective States and Inclusive Development Research Centre

<sup>95</sup> Jacob Kathman and Megan Shannon, 2011, ‘Oil Extraction and the Potential for Domestic Instability in Uganda’, *African Studies Quarterly*, 12 (3):23-45

<sup>96</sup> Sam Hickey, Badru Bukonya, Angelo Izama, and William Kizito, 2015b, ‘The political settlement and oil in Uganda’, *ESID Working Paper No. 48*. Manchester: Effective States and Inclusive Development Research Centre; Maja de Vibe 2013, *Political Economy Analysis of the Oil Sector in Uganda. A Scoping Study for the International Law and Policy Institute*. Oslo: ILPI; Richard Vokes, 2012, ‘The Politics of Oil in Uganda’, *African Affairs*, 111 (443):330-314

<sup>97</sup> Civil Society Coalition on Oil and Gas (CSCO), 2016, “CSCO submission to the Parliamentary Committee on Commissions, Statutory Authorities and State Enterprises regarding an investigation into award of UGX 6 billion shillings to public officials for their participation in a case between Government of Uganda and M/S Heritage Oil and Gas”, Kampala: CSCO

- Strengthening supervision and third-party oversight over other state institutions which are responsible for the investment, management, and overseeing the utilisation of revenues generated from petroleum operations, such as those provided for in Uganda's laws, ensures sustainable management and investment of oil revenues.
- Ecuador's experience of back-door deals during its court case with Chevron reveals the futility of excessive secrecy. While a lot of clauses were included in the PSAs to address shortcomings in the then existing legislations, many of the provisions in the PSAs may have been embedded in the acts and regulations to render the PSAs simpler, easy to negotiate and manage.<sup>98</sup> However, these PSAs remain secrets, which weaken independent, third-party, oversight.
- There was a controversial handshake to 42 officials who were involved in the case between Government of Uganda and Heritage Oil. From the preliminary findings of ongoing investigations, a key lesson is clear: specification of rewards and awards for exceptional performance of public servants is important for transparency, accountability, motivation, and prevention of collusion and wasteful expenditure. It is ironical that officials from Uganda's revenue agency, including Dr. Simon Kagugbe who chairs the agency's Board of Directors, are reported to have been ignorant that money which has not been budgeted for was spent irregularly: "We did not authorize any payments because we did not know about anything, we learnt about all these from the media; in fact it is only on Friday, January 20<sup>th</sup>, 2017 that the related documents were brought to the Board meeting. We find it irregular that money that was not in the budget was spent"<sup>99</sup> While rewarding excellent performance is desirable, care needs to be taken not to dilute the motivation of public officials in non-petroleum sectors who may be equally performing commendably, exhibiting professional dexterity and patriotic astuteness in those public spaces of employ.

## 3.2 Environmental Protection and Conservation

A major debate has been unfolding about the relationship between petroleum exploitation and environmental damage with implications for climate change. Ecuador's oil and gas sector struggles with these concerns. Multinational companies (MNCs) are increasingly facing pressure to coordinate their responses to global environmental issues.<sup>100</sup> Some companies have had to adjust their management styles to environmental concerns, public health outcries<sup>101</sup>, and ethical dilemmas associated with wealth accumulation through the exploitation of hydrocarbons as against the socially detrimental emission of greenhouse gases and other costs to global, regional or local environmental futures.<sup>102</sup> As a result, questions of sustainable development of the industry remain.

<sup>98</sup> Uganda, *Strengthening the Management of the Oil and Gas Sector in Uganda*, p. 19

<sup>99</sup> Rep. of Uganda, 2017, 'We learnt of Ushs.6bn 'handshake' from media - URA Board', Kampala: Parliament of the Rep. of Uganda (from <http://www.parliament.go.ug/index.php/about-parliament/parliamentary-news/1118-we-learnt-of-ushs-6bn-handshake-from-media-ura-board>, 16 March 2017)

<sup>100</sup> David L. Levy and Ans Kolk, 2002, "Strategic Responses to Global Climate Change: Conflicting Pressures on Multinationals in the Oil Industry", *Business and Politics* 4 (3):275-300; Kolk and Lecy, 'Winds of Change'.

<sup>101</sup> Miguel San Sebastián and Anna-Karin Hurtig, 2004, 'Oil exploitation in the Amazon basin of Ecuador: a public health emergency', *Pan Am J Public Health* 15(3):205-2011

<sup>102</sup> Jon Birger Skjærseth and Tora Skodvin, 2003, *Climate change and the oil industry: Common problem, different strategies*, Manchester & New York: Manchester University Press; Sybille van den Hove, Marc Le Menestrel and Henri-Claude de Bettignies, 2008, 'The oil industry and climate change: strategies and ethical dilemmas', *Climate Policy* 2: 3–18.





*Indigenous communities, such as the pictured Houaorani, live in the Amazon forest region, where the said 12% of Petroamazonas' profits are supposed to be invested*

It is now stressed that the industry's direct association with the depletion of the ozone layer, through greenhouse gas emissions, renders it imperative for private and public actors alike to come to terms with demands for an environmentally sustainable oil industry. Calls for "Greening the Oil Industry" have been made from near and far. Ecuador has been contending with these issues. In one of its court battles, the environmental case of Ecuador vs Chevron, we clearly see the importance of environmental audit, environment-responsible field operations, remediation, and periodic restoration and monitoring of water systems, waste management structures, and other environmental controls.<sup>103</sup>

### **3.2.1 The Futile Yasuni-ITT Initiative (see Annex IV)**

Ecuador's section of the Amazon region, **La Amazonía**, consists the Amazon jungle provinces wherein high-level biodiversity and indigenous communities inhabit. The region hosts the huge Amazon-forest-based national parks and Amerindian untouchable zones. These areas are set aside for the Amazon "Amerindian" ethno-linguistic communities that continue to live a traditional lifestyle of hunting, fruit gathering, and fishing. This high-biodiversity and ecologically attractive region has the largest oil and gas reserves in Ecuador. Oil companies, mainly Petroamazonas and Repsol, have extensively exploited parts of the upper Amazon region, and threaten to encroach on the controversial Yasuni National Park, part of which hosts the Yasuni Ethnic Reserve. Although damage had been done by decades of petro-exploitation in Ecuador, the Park proved to be a touchy issue for both the state and oil companies. Following civil society demands to preserve the park, the *Yasuni' Ishpingo Tambococha Tiputini* (Yasuni ITT) Initiative was "proposed to enact a

<sup>103</sup> Kimerling, 'Indigenous Peoples and the Oil Frontier in Amazonia'; Chevron Corp., 'Texaco Petroleum, Ecuador and the Lawsuit against Chevron'

permanent ban on oil exploration and extraction activities within an Ecuadorian National Park and to obtain financial resources from the international community to compensate (partially) forgone oil revenues.”<sup>104</sup> The proposal was later promoted and owned by the government, which apparently sought to protect the vital national park with unrivalled global importance. The people who live in voluntary isolation within the park’s boundaries also needed protection. Demands for the protection of their environmental rights were also increasing within and beyond the region. Had this initiative sailed through, it would have placed “the Ecuadorian state at the center of revenue generation by potentially eliminating not only (foreign) oil corporations but extraction itself completely within a small area of significant importance for its oil reserves and biodiversity.”<sup>105</sup> Gosh!, the initiative failed. The Park is set for exploration and exploitation.

According to Guillaume Fontaine, policy design explains the policy failure of the Yasuni-ITT initiative. The design of this initiative had an impact on institutional coordination, operational consistency. The design of the initiative also blurred and fragmented institutional agency, hence creating competing interests and actors. Faced with controversial policy processes, there emerged competing interpretations of existing constitutional and legal instruments and provisions, which presented implementation difficulties. These difficulties of interpretation and application led to uncoordinated response to a national policy issue with competing policy options. Two contradictory policy options were presented for deciding whether or not to exploit oil in the park:

- ★ **Option A** was concerned with not exploiting oil reserves in the Yasuni/Conservation area for the future of humanity, subject to international funding for such conservation.
- ★ **Option B:** indicated that in case of failure to raise funds from international sources, for the biggest oil operation in the country which was needed for economic development, exploitation might follow.



<sup>104</sup> Pellegrini, et al, 'The demise of a new conservation and development policy?', p.1

<sup>105</sup> Murat Arsel and Natalia Avila Angel, 2012, "Stating" Nature's Role in Ecuadorian Development: Civil Society and the Yasuni-ITT Initiative', *Journal of Developing Societies* 28(2): 203–227 (at p. 212)



*Study Tour Participants in the land of indigenous Houaorani, Nov. 2016*

The Yasuni-ITT initiative was designed as a kind of self-limiting either-or. At its core lay the issue of national sovereignty: how does a country retain sovereignty when it depends on decisions from international financiers to make choice of its development trajectory? Every policy choice has an alternative. Ownership and control over the policy process is key to the success and sustainability of any policy. The proposition that the Yasuni-ITT Trust Fund would be managed by the UNDP [United Nations Development Program], not the Ecuadorian state, was problematic. This offer seems to contravene Ecuador's coveted energy security and sovereignty, as well as decisional autonomy. Little wonder, therefore, that option "A" failed. Domestically, the Yasuni-ITT design (i) *weakened the main authorities, the environment ministry, while also strengthening other options and the responsible authorities*. This in turn (ii) *weakened, as well, non-state actors (such as environmental coalitions who were opposed to the exploitation) while strengthening the developmentalist and pro-exploitation coalitions*. Intrastate institutional jostling formed part of the processes leading to policy failure: by eroding inter-institutional coordination, and watering down regulatory consistence, domestic jostling weakened the international interest in funding option A.<sup>106</sup> The failure was presented as a demonstration of betrayal by international funding sources while at the heart of it were developmental and sovereignty concerns. Clearly, these domestic policy-related overlaps were deliberate and effectively instrumentalised.

<sup>106</sup> Guillaume Fontaine, 2016, 'The Lost paradigm: Ideas and Institutions in the Yasuni-ITT Initiative Failure', presentation to the Study Tour workshop, under Panel "Extractive Nationalism in Latin America", 8 Nov. 2016

### Map 3: Location of the Yasuni National Park in Ecuador<sup>107</sup>



Indicative of the controversial nature of the Yasuni-ITT initiative and the politico-ideological convictions that informed the design and institutional fuzziness surrounding the project is the way the Ecuadorian government approached the issue. President Rafael Correa opted for an executive order, presidential decree, instead of a referendum on the issue, for he was aware that the latter option would not pass. This contrasts with constitutional prohibitions on exploitation of oil in a national park, and with provisions of the 2008 constitution which declares the region one of strategic national interest. Changing this constitutional provision requires  $\frac{2}{3}$  of the National Assembly. The decree was extended 4 times, beyond the initial one year, to weaken the possible opposition from anti-exploitation forces/coalitions and legitimize the final decree. This created institutional debates which helped in erasing veto players against the president's desired policy option. Blocks 43 and 31 are located in the park. 20% of Ecuador's oil reserves lie in these blocks. Exploitation will continue.<sup>108</sup> ***The lesson to learn, and its accompanying temptation to avoid, is clear: when a policy process is deliberately dragged, and suffers jostling within the international politico-economic space, domestic and international interest wanes or is exhausted, and the transaction cost is lowered, creating incentives for action without resistance.*** The future of the Yasuni-ITT Initiative, at this point, lay in the hands of the executive arm of government led by president Correa. It remains to be seen whether future developments on the political scene overcome the complex interplay of foreign-funding and domestic-political factors to recover the initiative.

<sup>107</sup> From: <https://www.pachamama.org/news/ecuador-will-vote-on-oil-drilling-in-yasuni-national-park>, 3 March 2017)

<sup>108</sup> Fountaine, *ibid.*



*River Napo/Napou flows through the forests of Yasuni National Park*

The failure of the Yasuni-ITT initiative reveals three issues. First, state and market interests in oil wealth remain too strong for effective non-state resistance: the initiative would have protected biodiversity, respected indigenous peoples' territory, and mitigated future contributions to climate change.<sup>109</sup> But it was watered down by the combined interests of state and non-state petro-interests. The possible collusion between oil companies and the state cannot be underestimated here. Second, the contentious relationship between the oil industry and climate change responses remains a difficult balance. Ecuadorian officials estimated that "leaving oil underground would prevent the CO<sub>2</sub> emissions associated with burning this fossil fuel, thereby helping to combat climate change."<sup>110</sup>

<sup>109</sup> Matt Finer, Remi Moncel and Clinton N. Jenkins, 2010, 'Leaving the Oil Under the Amazon: Ecuador's Yasuní-ITT Initiative', *Biotropica* 42(1): 63–66 (at p. 63)

<sup>110</sup> *Ibid*, p.63

Yet the evolving narrative about the climate-change impact of expanded oil and gas exploitation did not convince both the state and the market about the importance of reduced CO<sub>2</sub> emissions as well as the potential damage caused by further deforestation in the park.<sup>111</sup> Third, reputation (both national and leadership) and sovereignty are important aspects of the oil industry. Their neglect can stifle joint development initiatives. The avoidable tendency for northern development institutions to superintend southern counterparts has had counterproductive consequences for the global environmental and climate change agenda.

The idea that UNDP—instead of the Ecuadorian government—would manage funds for the Yasuni-ITT initiative was perceived to display an underlying and bothersome assumption that Ecuadorians were incapable of managing their own resources and development process. This may have evoked reputational counter-reaction as it also unacceptably threatened the sovereign sanctity of the Ecuadorian state. Consequently, Petroamazonas's Block 15 and 16, and the Spanish oil company, REPSOL, operate amongst indigenous communities in the Amazon Forest/Region where the park is located, where indigenous communities like the Waorani (Houaorani), the Quichua, the Tagaeri, the Huinatare, the Oñamenane, and the Taromenane, live.<sup>112</sup>

Some of the indigenous communities—specifically the Houaorani—have been accessed by oil companies and the state, and are being 'modernised'.<sup>113</sup> Other communities remain hostile and inaccessible to-date, and have been legally allowed to remain isolated and un-contacted within the Yasuni Ethnic Reserve. These communities may not remain in isolation much longer and/or survive the approaching petro-exploitation following the failure of the Yasuni-ITT initiative. Petro-modernity is fast engulfing them.

### 3.2.2 Beyond Yasuni-ITT – Other Initiatives

Beyond the futile Yasuni-ITT initiative, other innovations have been undertaken to ensure environmental sensitivity in oil and gas sector. Most of these initiatives have been initiated by civil society actors defending the environment and indigenous communities' rights or decrying ecological damage wrought by oil and gas exploitation, or by social entrepreneurs. Two key initiatives are analysed here: (i) the legal/court battles that highlight environmental damage, petro-politics, the power of oil companies, and afflictions suffered by indigenous communities; and (ii) the *Optimización Generación Eléctrica and Eficiencia Energética* (Optimal Electricity Generation and Energy Efficiency OGE&EE) project.

<sup>111</sup> Arsel and Angel, "Stating" Nature's Role in Ecuadorian Development', p. 215

<sup>112</sup> Personal observations during the Study Tour, November 2016

<sup>113</sup> The *Estación Científica Yasuni* (Yasuni Scientific Station) is a scientific research centre of the Catholic University of Ecuador (See website: <http://www.yasuni.ec/inicio/>), and is located in the Yasuni National Park and Ethnic Reserve. It is dedicated to research, training, environmental education, and management of natural resources constituting the rich biodiversity and ecosystem of that part of the Amazon region.

## ***Court/Judicial Struggles***

Court battles with northern oil companies and pressure groups have been both curses and blessings to the government. Some are won, others lost, others protracted. Some sought justice for affected indigenous communities; others were disputes over interpretation and application of the evolving laws and contracts. At some point the indigenous Kichwa and Huaorani united to protect and assert their claims over the territorial space in which new health problems were engendered by oil-company operations. In November 1993, a year after Texaco Inc.'s contract had expired, U.S.-based attorneys who had read about the *Amazon Crude study* filed a class action lawsuit against Texaco in a federal court in New York.<sup>114</sup> The suit, *Aguinda vs. Texaco, Inc.*, filed on behalf of an estimated 30,000 (with 74 plaintiffs named) indigenous and colonist residents harmed by pollution from the company's Ecuador operations, included both common law and international law claims.

Texaco and Ecuador sought an outside court settlement, and signed a series of agreements in 1994-1995 (aka the "Remediation Contract"), in which Texaco agreed to undertake some environmental remediation work; pay Ecuador for socio-economic compensation projects; "negotiate contributions to public works with municipal governments of four boom towns that sprang up around the company's operations." Government of Ecuador and Petroecuador also agreed, in exchange, to release and liberate Texaco, its subsidiaries and successors, from all claims, obligations, and liability to the Ecuadorian State and Petroecuador. Texaco did little in honour of this Remedial Contract. After nine years, the *Aguinda v. Texaco* case was dismissed and told to sue in Ecuador, on the ground of *forum non conveniens*.<sup>115</sup> The lesson is that fruitless efforts to engage in legal battles against powerful multinationals in defence of indigenous communities' interests and well-being ought to be avoided through legal-institutional cushions.



<sup>114</sup> Before the merger with Chevron in 2001 (which birthed Chevron-Texaco), Texaco's corporate headquarters were located in White Plains, New York. The complaint alleged that decisions directing the harmful operations were made here. Judith Kimerling, 2007, 'Transnational Operations, Bi-National Injustice: Chevrontexaco and Indigenous Huaorani and Kichwa in the Amazon Rainforest in Ecuador', *American Indian Law Review* 31: 445-508, at p. 464

<sup>115</sup> This legal doctrine allows court to dismiss a case that could be tried in another. Kimberly, p. 466



*Wastewater pits, such as these ones in Ecuador, have damaging consequences upon the environment and surrounding communities<sup>116</sup>*

According to Kimberly, “The final release of Texaco and its corporate family reflects the enduring political and economic power of the company and the selective application of the law in the oil frontier. In as much as it liberates the company from environmental obligations to the state, it also raises serious questions of law and legitimacy.”<sup>117</sup> The case seems to have attracted state-market collusion against the plaintiffs: the company supposedly held closed door negotiations with government in the absence of the complainants or their representatives. The US court accepted Texaco’s proposition that Ecuadorians controlled the relevant decisions regarding Texaco’s operations. Court accepted the defendants’ argument that no one from Texaco or operating out of the US made material decisions or was involved in designing, directing, guiding, or assisting Texaco’s activities that caused pollution. It also maintained that environmental practices were regulated by Ecuador. This places weak states and their people’s interests at the mercy of strong multinationals. What can weak states like Kenya, Uganda, Tanzania, do in the event of such scenarios developing? The best option is to avoid such long court battles through cautious legislations and contract negotiations.

Another significant court process involved Occidental Exploration & Production Company (OPEC) and Chevron (see Annex V). The 2002-2004 case, OPEC vs. Republic of Ecuador, took place in the London Court of International Arbitration (Case No. UN 3467) and was arbitrated by Prof. Francisco Orrego Vicuña, as President; Mr. Charles N. Brower; and Dr. Patrick Barrera Sweeney.<sup>118</sup> It involved contentions over interpretation of contracts, treatment of OPEC, and compensation issues. The 2004 ruling by this “ad hoc arbitral tribunal” awarded OPEC US\$ 75 million over the Ecuadorian tax system, interpretation

<sup>116</sup> Online Sources (From: <https://selvavidasinfronteras.files.wordpress.com/2011/02/gas-lift-production-pool-14.jpg> and <http://stevendonziger.com/ecuador-oil-pit-the-chevron-pit-blog/>, 16 March 2017

<sup>117</sup> Kimberly, p. 466

<sup>118</sup> London Court of International Arbitration, 2004, *Occidental Exploration and Production Company v The Republic of Ecuador*, London: LCIA ([http://www.biicl.org/files/3914\\_2004\\_occidental\\_v\\_ecuador.pdf](http://www.biicl.org/files/3914_2004_occidental_v_ecuador.pdf), 23 Feb. 2017)



of contracts, unfairness in the treatment of OPEC, and respect for the Ecuador-US bilateral agreement of the 1980s and 1990s when OPEC provided oil production services to Petroecuador. This relationship had changed over the years. Minor agreements and expressions of understanding between the two companies, OPEC and Chevron, had been reached.<sup>119</sup>

Other cases, such as *Burlington Resources Inc. v Republic of Ecuador*, raised questions regarding the exercise of the State's sovereign taxing power as against expropriatory taxation under conditions of bilateral treaties.<sup>120</sup> Protracted court cases can have negative consequences. They should be avoided or minimised for they can exhaust weak states and economies with litigation costs, and create opportunities for back-door deals, corruption and collusion between state and oil-company representatives. Second, states should ensure legal and contractual forthrightness to sidestep oil companies' limitations in environmental sensitivities and readiness to avoid some taxes, which can later scare away oil companies and create new cracks in the sector. Finally, states' avoidance of these scenarios prevents suffering and victimisation of directly-affected communities.

### **The OGE&EE Project**

The OGE&EE project, an innovative social investment enterprise operating alongside Petroamazonas, reflects local content (through skills development, employment), environmental conservation, community benefits and profit generation. It deviates from traditional winner-loser arrangements in capitalist conceptions of oil-resources exploitation. Instead of wasting AG, flaring it into the atmosphere, and hence increasing the facilities' greenhouse gas emissions and contamination of the atmospheric environment, the project turns what would have been waste into a lucrative resource: energy. The oil industry gets electricity as do neighbouring communities, while the country acquires a reduced-AG-flaring sector. While there are new global initiatives, such as the World Bank's Zero Gas flaring programs<sup>121</sup> information about the OGE&EE project draws from interactions with its founding executive and the documents and presentations he has developed. Policy interest and support was necessary to implement the project. This was necessary to ensure that energy efficiency intentions go hand-in-hand with binding agreements in the oil and gas sector.

<sup>119</sup> Susan D. Franck, 2005, 'Occidental Exploration & Production Co. v. Republic of Ecuador. Final Award. London Court of International Arbitration Administered Case No. UN 3467', *American Journal of International Law* 99 (3): 675-681

<sup>120</sup> Arno E. Gildemeister, 2014, 'Burlington Resources, Inc v Republic of Ecuador: How Much is Too Much: When is Taxation Tantamount to Expropriation?', *ICSID Review* 29 (2):315-320

<sup>121</sup> World Bank, 2015 (Sept. 22-23). *Global Initiative: Combining Forces to End Routine Gas Flaring*, Washington DC: World Bank. WB/IGU/SE4ALL. Regional Gas Seminar Maputo. (from <http://www.igu.org/sites/default/files/7-3%20World%20Bank%20-%20Anas%20Benbarka%20-%20Gas%20Competence%20Seminar%20-%20September%2023%202015.pdf>, 21 Nov. 16); Francisco J. Sucre, 2016. 'Introduction to Routine Associated Gas Flaring', Training on Zero Routine Gas Associated Gas Flaring Washington DC: World Bank; Francisco J. Sucre/ Berend van den Berg, 2016, 'Best Practices for Gas Flaring Reduction (Monetizing Stranded Gas)', Training on Zero Routine Gas Associated Gas Flaring', Quito: Latin American Energy Organisation and World Bank.

*Petroamazonas, Ecuador's prime state-owned oil company, collects Waste Water that is separated from crude oil into a Reserve Tank [not unlike other tanks to be found at Central Processing Facilities (CPF)]. The water is then pumped into deep wells three (03) kilometres underground—below the water table—to avoid contamination of below-surface water sources as well as the land-surface environment. The OGE&EE's \$1.2 billion energy efficiency and environmental conservation project in Ecuador taps the Associated Gas (AG) produced by Petroamazonas and converts it to electricity. The power is then used by the oil industry processes of the company, some of it served to neighbouring communities, and the rest connected to the national electricity grid. Uganda legislated against gas flaring, and intends to cycle waste-water back to oil wells to maintain oil-flow pressure. What are other African countries doing or planning to do?*

Policy interest was also needed to convince oil companies that the OGE&EE project might work. Oil companies are transitioning from simply producing oil to becoming energy-efficient and energy-sufficient companies that create 'win-win' scenarios for all stakeholders once the gap between political interest and technical capabilities is bridged. Unfortunately, "the voices of the hands-on people are usually absent at high-level meetings." The result is a separation between decision making and action: "The problem arises when policy and decision makers on the world stage lay out objectives and non-binding agreements without paving the way for funding, local competence and other essentials to provide the deliverables and potential game changers required in the industry. The fact of the matter is that the gap between policy makers and people who actually can get things done is widening."<sup>122</sup> The OGE&EE project is consistent with the World Bank global Initiative, launched in April 2015, to end routine gas flaring by 2030, by working with governments, oil companies, and development agencies to stop the wasteful AG flaring to which some countries have committed.<sup>123</sup> It is indicated that AG flaring is wasteful (Annex VI).

<sup>122</sup> Berend van den Berg, 2015 (March 6). 'Petroamazonas brings energy efficiency to Ecuador', *World Finance* (from <http://www.worldfinance.com/markets/Petroamazonas-brings-energy-efficiency-to-ecuador>, accessed 20 November 2016).

<sup>123</sup> Dominic Chavez, 2015 (May 22). 'Initiative to Reduce Global Gas Flaring', Washington DC: World Bank (from <http://www.worldbank.org/en/programs/zero-routine-flaring-by-2030/brief/initiative-to-reduce-global-gas-flaring>, 20 November 2016); World Bank, 2016. *Global Gas Flaring Reduction Partnership (GGFR)*, Washington DC: World Bank (from <http://www.worldbank.org/en/programs/gasflaringreduction>, 21 Nov. 16); World Bank, 2016 (August 18). 'Nigeria Endorses 2030 Flaring Initiative; Raises Own Goal to 20202'. Brief, Washington DC: World Bank (online: <http://www.worldbank.org/en/programs/zero-routine-flaring-by-2030/brief/nigeria-endorses-zero-flaring-initiative>, 20 November 2016)



*Figure 4: Gas Flaring at the Central Processing Facility (CPF), of Petroamazonas' Block 15, Amazon Region, Ecuador, Nov. 2016*

## Lessons for Uganda

- Like Ecuador, Uganda faces threats to her highly biodiverse Albertine Graben. Protection of this environment and tourism attractions amidst oil-sector developments is a necessary compromise.
- Uganda's impression upon JVPs on zero gas flaring in the law gives weak sanctions in the law. These can be strengthened and enforced.
- If oil companies are hesitant, government can attract other investors to tap AG and turn it into electric energy. OGE&EE investors & partners and World Bank initiatives can help integrate projects for AG-power conversion and utilisation in the sector
- Attracting funding, for instance from the World Bank's Zero Gas Flaring initiative and global environment/climate change funding sources, can finance zero flaring initiatives in Uganda
- Deep wells for depositing [where needed also saving] waste water is a promising environmental consideration, instead of open wells. Uganda's intended cyclising and re-pumping of waste water into oil wells for flow-pressure maintenance can be supplemented by deep wells.
- Avoid protracted court processes through careful legislation and contract negotiations for court cases can drain national resources, energy, and time. Filling the legal-institutional loopholes that may lead to such cases is consistent with the old wisdom: prevention is better than cure. Uganda's recent experience with Heritage remains illustrative on this issue.

## 3.3 Diversification

Diversification reduces dependence on one or few sectors or investments and demands simultaneous departure from the present market structure to reallocate resources to more than few production areas and new industries. The energy industry is diversifying from hydrocarbons to green and other forms of energy, driven by new technological changes and demographic adaptations, advances in social science knowledge, socio-political interests, and cultural endowments, which affect the supply of institutional change in the oil and gas sector.<sup>124</sup> It is deliberate and calculated. Diversification may also be planned before the sector to be diversified reaches maturity, demonstrating awareness about the sector's strategic future. Dependence on exhaustible oil and gas revenues can be dangerous when global and regional prices fall due to changes in product demand, new technological and scientific innovations, emergence of substitutes or political turmoil.

Diversifying oil and gas economies entails development of sectors like tourism, agriculture, manufacturing, and service sectors, to avoid overdependence on the former

<sup>124</sup> For details on the theory of Institutional Innovation, see: Vernon W. Ruttan and Yujiro Hayami, 1984, 'Toward A Theory of Induced Institutional Innovation', *Journal of Development Studies* 20 (4):203-223.

as does Ecuador. The country considered several diversification strategies, based on upstream, downstream, and sectoral diversifications (vertical integration), and undertook sector-related diversification to build linkages based on estimated exhaustibility of the reserves, and costs of inputs, in order to augment sectoral investments with oil revenues. In terms of horizontal diversification, Ecuador sees petroleum as capital/money that offers a wide range of possibilities. Rents are used to overcome fiscal constraints and to finance development in other sectors using government fiscal accounts. As a result, the population that previously did not directly relate with the sector benefited from the sector as oil revenues provided the much-needed capital for investing in other sectors.<sup>125</sup>

Consideration for certain contextual factors is important: exhaustibility of oil resources, local capacity and potential for capacity development, type of development trajectory sought, domestic political economy issues, and issues of natural comparative advantage to develop international comparative advantage inform country-specific diversification.. Chile diversified basing on copper. Indonesia diversified to agriculture and mining. Dubai/UAE seeks to diversify to services (financial, luxury tourism). Export-oriented high-tech industries in Malaysia were intended to get away from oil and natural resources dependence. Malaysia's Cyberjaya has been designated for hi-tech innovations, research and development.<sup>126</sup> Uganda and African countries should, thus, develop country-specific diversification strategies that cater for their development needs.

From the foregoing, diversification: (i) allowed the country to strategically invest its oil revenues; (ii) is slowly reducing the country's dependence on oil and gas revenues by expanding other potential sources of tax revenues; and (iii) allowed the country to increase its energy production and self-sufficiency, hence reversing energy dependence. Some elaboration is worthwhile on the energy sector. Ecuador has transformed its energy matrix in less than 10 years. Its National Agenda 2016-2024 and grand plan for energy and electricity will contribute to the sustenance of the country's development goals by providing revenues from energy exports. This goal will be achieved with clearly-specified policy considerations:

- **Promotion of efficient behavior** in the energy sector to ensure energy security and energy sovereignty. With support from foreign investors and organisations, Ecuador hopes to further diversify its energy while promoting efficient behavior in order to consolidate an inclusive and comprehensive energy sector; develop the post-2024 national energy-sector master plan for increasing energy coverage and access. The country intends to reach 6 million households with energy by 2040, cater for vulnerable groups/communities, coordinate inter-sectoral participation in the energy matrix, and encourage private-sector investments in the energy sector.
- **Diversification** of the energy sector includes investment in clean and renewable energy, thermal and wind energy; reduction of AG flaring, hence mitigating GhG

<sup>125</sup> Amir Lebdioui, 2016, 'Diversification Strategies in Mineral-Resource-Rich Countries', presentation to the ELLA Study Tour, Quito, Nov. 2016

<sup>126</sup> The author visited Cyberjaya in 2014 and was impressed by Malaysia's deliberate effort to develop the necessary infrastructure for an innovations and R&D city.

emissions; expansion of hydro-electric energy to 70% of the country's energy needs by 2040; environmental remedies and fighting climate change impacts; and promoting efficient energy consumption.

- Prioritisation of **energy sovereignty and security**, to reach energy security levels of self-sufficiency, supply the whole country, and expand energy exports to the region. Ecuador's strategy of developing adequate energy infrastructure, energy extraction from biomass and bio-combustibles, extending the horizon of hydrocarbon production; becoming a major exporter of combustibles by 2030, and reaching 10% dependence on gasoline replacing it with clean energy—will depend on the development of high-quality energy infrastructure that supports national development and strengthens human talent to tap local capabilities to manage the country's key energy systems.
- **Equitable energy systems** through energy access and affordability and practices (efficiency in production and transmission), legal reforms, boosting market mechanisms, and promotion of start-ups are key provisions and evolving practices. Financing for energy sector is also part of this strategy. This is an ongoing process within which the OGE&EE project was conceptualized.
- **Regional energy integration** through joint planning, joint marketing, and joint consumption of energy resources in the region. The country encourages regional energy integration to foster regional energy empowerment. This demands regional cooperation, solidarity and complementarity, which the country is trying to negotiate with neighbours. This whole agenda is complemented by the **Comprehensive Vision of the Energy Sector** in the short, medium and long terms.<sup>127</sup>

A key element of Ecuador's energy diversification is the OGE&EE project that is presented as a case of successful social entrepreneurship, local content and national participation, biodiversity conservation, community benefits and profit generation in a single model (see Annex VII).

In 2007, Ecuador created a Ministry of Electricity and Renewable Energy (MERE), passed two constitutional amendments in May and July 2008 to restructure the sector, created National Electricity Company (CNEL) and National Electric Company (CELEC EP) in late 2008 and early 2009 respectively, and established a single electricity tariff for distributors. Another 19 state distributors were consolidated. The CNEL manages all electricity distribution companies. The CELEC EP centralized the management of most generation and the transmission companies. Government undertook to expand power capacity by over 60%, building 10 large wind and hydroelectric projects, and awarding most construction and equipment contracts to Chinese and Russian state-owned companies owing to Chinese and Russian financing. The 1500MW Coca-Codo Sinclair hydroelectric project, the largest in Ecuador intended to supply 33% of her electricity needs, was constructed by China's Synohydro. A 500 KV high voltage transmission system linking Quito and Guayaquil to the 1500 MW Coca-Codo Sinclair plant was awarded to a Chinese

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Davalos, 'The National Energy Agenda, 2016-2040'.

contractor in July 2013. Ecuador currently promotes the sale of locally-produced electric cooking stoves as an alternative to the government-subsidised LPG on which majority of Ecuadorians still depend for cooking, water heating, and other household uses at an estimated cost of \$3.7 billion annually.<sup>128</sup>

In 2010, government set up Special Economic Development Zones (ZEDEs). ZEDEs are subject to special trade, tax, and financial rules. Imported goods entering these zones are exempted from tariffs. Existing free trade zones were permitted to continue operations in accord with their original authorisation. Administrators and users were required to adjust to new procedures defined for the ZEDEs.<sup>129</sup> In these zones, other sectors, such as fishing, telecommunications (here Brazil is a major investor), and innovations are facilitated.

A final element of diversification is *regional diversification*. Latin America has a history of failed regionalism. Region-wide policy inconsistency remains a difficult issue since the sovereign independence of countries remains a defining feature. Countries like Ecuador consider it important to set up supra-regional institutions, such as the Quito-based UNASOL (Union of South American countries with health, strategic planning, and other councils). But the existence of regional institutions with supranational mandate and quality depends on political goodwill for positive outcomes to follow. The minister admitted a high risk of policy inconsistencies but added that it can also help in tightening regional institutions in order to overcome threats from national policy flaws. He decried absence of a **standardization agency in the global south because of lack of [political] vision**. *The issue is hardly discussed in regional arenas, and has not, therefore, been espoused in the global south*. Geneva-based ISO meetings are dominated by discriminatory, old-school, non-UN logics, where big players block small players' interests. In addition to *lack of vision and understanding of the issues, lack of technical knowledge and skills also hampers global-south standardisation*. According to Arauz, 90% of the 3,000 technical standards in Ecuador are adaptations of foreign standards! The country is working to achieve high level interest in terms of research and policy discussion, to fill this gap through policy engagements within the region.<sup>130</sup>

## Lessons for Uganda

Uganda is unambiguous in its stated objective of investing oil and gas revenues for infrastructure development, human capacity development, and “using finite resources to create lasting benefit to society.”<sup>131</sup> This is consistent with the intent of ensuring efficient resources management. Ecuador's recent experience offers vital lessons for Uganda:

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<sup>128</sup> Department of State, 2014, Ecuador: 2014 Investment Climate Statement, Quito: US Embassy (from <https://www.state.gov/documents/organization/228171.pdf>, 13 March 2017).

<sup>129</sup> *ibid*

<sup>130</sup> Andres Arauz, Presentation on “Industrial and Knowledge Policy in Ecuador: Lessons and Challenges”, Quito, 14<sup>th</sup> November 2016. Arauz is the Coordinating Minister for Knowledge and Human Talent, Ecuador.

<sup>131</sup> NOGP, p. 19

- Energy diversification is important for ensuring energy sovereignty and security. Uganda lacks adequate energy today, and attempts can be made using petroleum and non-oil revenues to increase its energy production and consumption in order to spur economic development.
- Diversification of the economy—through the use of oil revenues to spur development of non-petroleum sectors—is a fundamental step toward avoiding overdependence on the oil and gas sector. Uganda has minimum legal provisions on this subject the implementation of which awaits developments in the sector.
- Lack of diversification makes the country beholden to the global market forces and political economy of oil and gas, making the country politically and economically vulnerable. More rhetoric and interest than is warranted has been directed at Uganda’s petroleum potential and expectations of development / productive diversification are mounting by the day.
- Clearly-identifiable sectors can be targets of oil-revenue investments. These include agriculture value chain, social services, tourism, R&D, ICT, pharmaceutical production, and industrialisation. Ecuador’s delays can be avoided, but national consensus on these priorities remains elusive in Uganda.
- The dollarization of the Ecuadorian currency in 2006, due to uncontrolled inflation, threatens the country’s sovereign control over its fiscal and monetary policy (e.g. debt servicing) and social control. Currencies are instruments of socio-political control. Reliance on a foreign currency indicates that control over economic activities and exchanges within the country depend on a foreign institutional instrument, indicating sovereign bankruptcy. Uganda can tread carefully not to fall victim to currency collapse and hyperinflation as the oil and gas sector evolves.
- Regional cooperation is important. Uganda’s attempt to involve regional players in its sector, such as through the East African Regional Refineries Development Strategy (EARRDS) adopted by the Partner States of the East African Community (EAC) in 2008, is a step in the right direction. This remains dependent upon the progress made at regional level in undertaking joint/regional development programs. The EAC suffers commitment and sovereignty concerns that need to be overcome.

### 3.4 Exit Strategy: Strategic Investment of petro-Revenues.

*The analysis in previous sections indicates that Exit Strategy for the oil and gas sector cannot be time-oriented for it is difficult to ascertain at the beginning of the industry how much oil and gas deposits a country has, which technological developments may in future affect the exploitability of the resource, and how world market and political conditions may influence the direction of the industry. Ecuador uses an “operational-composite” exit strategy, involving time estimations based on the amounts discovered,*



development orientation of the country, and what I call “Context-Oriented” exit strategies as contained in the diversification and investment choices made by the government. Ecuador has become adaptive and dynamic in the management of the oil and gas sector in order to enhance capabilities for responding to future exigencies as the industry unfolds. This repositioning has three dimensions: (i) the necessity and *justification for* continued investments in the oil and gas sector given prevailing market conditions and alternatives to petroleum products, such as alternative energy sources; (ii) costs and constraints associated with choices between continuity of the sector and alternatives to hydrocarbons in a climate-change-sensitive world; and (iii) awareness about exhaustibility of oil wealth and thus the need to plan for post-oil development and wellbeing through progressive reduction of dependence on the sector.

By using petroleum wealth to develop its critical infrastructure; save for future generations; restore, conserve and protect the environment; and develop human resource capacity that will run other sectors of the economy, Ecuador is destined to more ably meet its medium term development needs, such as housing, while catering for the needs of future generations, such as long-term infrastructure and parallel sectors. It follows that exit strategy, sustainability and efficiency are interlinked and difficult to distinguish in a manner that serves both theoretic-analytic and policy-relevant interests. The design and crafting of viable institutions for ensuring oil-sector efficiency; strategic investment of petro-revenues; environmental protection and conservation before, during, and after exploitation of petroleum; and diversification of the economy and energy industry are all elements of an exit strategy for they preclude overdependence on the sector. To say that a country invested its petroleum revenues is to indicate that it used these rents to invest in non-oil sectors, akin to diversification. But the additional imperative here is that *the country invests in those sectors it considers critical to domestic capacity development, strategic transformation of the economy, and relative independence from a single/ dominant sector—especially sectors historically dominated by western capital, finances, technology, skills and political interests.*

This investment may be preceded by sectoral and institutional reforms, induced by crises, or rooted in leadership initiative. The intent is to ensure that oil money is neither spent in wasteful investment nor squandered through political and bureaucratic corruption. Depending on the country’s strategic interests, different countries have different long term development visions. Ecuador’s investment in energy, infrastructure, social services and R&D, and tourism, indicate its development choices and exit strategy. What needs emphasis, however, is specification of exit-strategy-like areas of strategic importance in which Ecuador invests its oil revenues since 2007.

- **Oil and Gas Sector itself:** *Integration of state and non-state local content practices; and expansion of the state’s role* are important in ensuring Ecuador’s strategic objectives of ensuring maximum benefits from and control over the sector.
- **Energy Diversification and Investment:** *Promotion of efficient behavior* in the energy sector, and *Diversification* of the energy sector all ensure *energy sovereignty and security, promote equitable energy systems,* and reduce petroleum-sector dependence and facilitate *other sectors.*

- *Regional energy integration through a “Comprehensive Regional Vision of the Energy Sector”*, akin to the East African Refineries Development Strategy, help the country and region to share synergies and support regional sectors.
- **Investment in other sectors**, like mining, tourism, and agriculture
- **Social Services Provisioning** through funding education and research, health sector development, housing and other social spending strategies, constitutes the grand plan of human development that eases people’s non-dependence on the oil and gas sector.

Tourism, mining, and agriculture, are some of the key sectors with great potential. While Ecuador has many tourist attractions, and great agriculture potential, the government’s efforts to develop the sector are only recent. Nature-oriented and community tourism take a considerable component of the country’s attractions. Travel and tourism contributed about US\$1,959.9mn (1.9% of GDP) in 2014. This is expected to grow by 3.8% per annum to US\$2,829.2mn (remaining 1.9% of GDP) by 2025. The sector generated an estimated 127,500 direct jobs in 2014 (1.7% of total employment), including employment by hotels, travel agents, airlines and other passenger transportation services, activities of the restaurant and leisure industries directly supported by tourists, and related service providers. It is estimated that by 2025, the sector will account for 165,000 direct jobs, 2.7% annual increase over the next 10 years.<sup>132</sup>

Ecuador’s mining sector, though strategically important, remains underdeveloped but is now open to foreign investment. Her mining potential is concentrated in gold, copper, and silver. Since 2008, legal and institutional changes have taken place in the sector, aimed at making the sector more efficient and allow more national participation, but have negatively affected western mining companies in Ecuador. In January 2010, government established a new National Mining Company (ENAMI) to engage in joint ventures with state and private companies and increase government investment in the sector. ENAMI has the legal right of first refusal to establish mining operations in areas considered “of interest” by the state and in areas where no previous concession exists. Pre-2013 high commodity prices led to increased interest in mining in Ecuador. But US sources fear that problems with the regulatory frameworks, possible disapprovals from local communities over mining rights, and legal uncertainties, negatively impact the sector.<sup>133</sup> An evolving nationalistic approach to both petroleum and mining sectors is driving national choices regarding investments in mining.<sup>134</sup>

## Lessons for Uganda: Is there an Exit Strategy?

Uganda may claim to have specified a semblance of an exit strategy and plan for strategic investment of oil and gas revenues, but until implementation and progressive reform and

<sup>132</sup> World Travel and Tourism Council, 2015. *Travel and Tourism – Economic Impact 2015: Ecuador*, London: World Travel and Tourism Council (from [http://www.tourism-generis.com/\\_res/file/3750/49/0/Ecuador2015.pdf](http://www.tourism-generis.com/_res/file/3750/49/0/Ecuador2015.pdf), 10 March 2017)

<sup>133</sup> US Dept. of State, Investment Climate Statement

<sup>134</sup> Quote from: Barbara Hogenboom, 2012, ‘Depoliticised and Repoliticised Minerals in Latin America’, *Journal of Developing Societies*, 28 (2):133-158. Quote at p. 147-8

adaptations of these institutional specifications is observed little can be said about its efficacy. The aim of strategic investment is creation of lasting wealth and socioeconomic transformation. This strategy is, at best, more expressed as political rhetoric in Uganda. Though the Petroleum Fund, Sovereign Wealth Fund, and Petroleum Investment Reserve Fund, are specified in the law, there are no strong provisions on parliamentary oversight and independent third-party monitoring and oversight, fund transfers and utilisation, and control over political excesses.<sup>135</sup> What would be vital for exit from the oil and gas sector is an institutional framework for ensuring proper management of these revenues. Already, the Auditor-General’s office has reported delays in remittance of petroleum revenues to the Petroleum Fund contrary to the provisions of the law.<sup>136</sup> There are also concerns that the recent award of UGX 6 billion (before tax) to officials who were involved in a case between Government of Uganda and Heritage Oil and Gas over capital gains tax, and resulting Court awards accruing from the suit, were improper. This portends to future corruption and collusion in the sector.

A parliamentary committee has embarked on investigations in the said “presidential handshake” from which 42 public officers were reportedly awarded “for winning the London tax oil arbitration case”.<sup>137</sup> While awarding good performance motivates public servants, especially those working under considerable pressure from the powerful MNOCs, it can demotivate other equally-dedicated officials and create precedent for similar demands when not handled according to laid-out procedures. Few lessons can be drawn from Ecuador’s experience in court cases, Uganda’s very recent experience of legal battling and post-litigation developments, and on exit strategy:

- Specification of areas and sectors of strategic interest, and subsequent priority investment in these sectors is a critical component of an exit strategy and ensures strategic benefits from petroleum returns.
- Multi-stakeholder participation in determining the strategic investment areas/avenues is important for enhancing legitimacy and acceptance to the public. Consensus hardly exists on these priorities.
- Some sectors of the economy, when given sufficient attention, can help the economy to retain minimum robustness and resilience against petro-industry shocks. Some sectors may become more important than others as the economy transforms in the medium and long run, such as ICT today. Others are central to the sovereignty of the state and strategic security of a people, such as agriculture and food security, and health.

<sup>135</sup> Republic of Uganda, 2015, *Public Finance Management Act, 2015 (PFMA)*, Entebbe: UPPC

<sup>136</sup> According to CSCO, contrary to the provisions of the PFMA “the auditor general noted that US\$36,058,501 was collected in June 2015 and the remittance to the Petroleum Fund account was done at the end of October 2015 almost 4 months later.”, p. 4. See: Republic of Uganda, 2015, *Report of the Auditor General on the Financial Statements of ‘Strengthening the Management of Oil and Gas Sector in Uganda’ for the Financial Year ended 30th June 2015*, Kampala: Office of the Auditor-General

<sup>137</sup> CSCO, *Op Cit*; Rep. of Uganda, 2017, ‘COSASE Kickstarts Probe into 6 Bn Handshake’, Kampala: Parliament of the Republic of Uganda (from <http://www.parliament.go.ug/index.php/about-parliament/parliamentary-news/1108-cosase-to-probe-shs6-presidential-handshake>, 15 March 2017)

- Relegation of other sectors should be avoided. Sectors with potential to generate government revenues, like tourism, ICT, manufacturing, agriculture modernisation, and human capacity development, help the economy to avoid overdependence on oil and gas revenues and foreign human competencies. Ecuador did so for many years, and become too oil-and-gas-dependent, suffered hyperinflation by 2005, to the extent that the country was forced to adopt a US dollar as national currency in 2006.
- Plan for investment in energy diversification, energy security, and energy sovereignty during initial planning, design, and implementation of oil-sector operations. The oil and gas sector can hook most sections of society onto modern electricity usages through urbanisation, expansion of the middle class, and increased economic activities that require electric-energy use. Ecuador has realised this challenge and is addressing it aggressively. Uganda’s energy sector can expand beyond hydro-electric energy when petroleum revenues are invested in energy diversification areas.
- *An exit strategy for a nascent oil and gas sector cannot be time-oriented.* This is because it is difficult to ascertain at the beginning of the industry how much oil and gas deposits a country has. Technological developments may in future affect the exploitability of the resource. How world market and political conditions may influence the direction of the industry remain difficult to foretell. What may be attempted is “operational-composite” exit strategy. This involves estimations of longevity and potential returns based on the amounts of deposits discovered, goal/mission orientation, and a “Context-Oriented” exit strategy which entail adaptive and dynamic management of the sector in order to enhance capabilities for responding to future exigencies and meeting future financing needs as the sector unfolds.
- *Exit strategies need not be limited to investments; they may entail sovereign wealth funds, savings in hard currencies, and new innovations that may unfold in future. States and societies endowed with petroleum wealth need to keep their eyes on techno-scientific developments in order to modify, widen, and deepen their exit strategies.*
- The mining sector is equally important and needs institutional preparedness. Ecuador delayed to develop its mining sector, but started off with institutional specification of the role of the state in mining and mineral-sector processes. Uganda needs a National Mining Company (NMC) to work alongside private-sector companies and to embody the State’s interest in the sector. The country’s huge mineral potential, and quantities and qualities and nature of our minerals, justify this viewpoint. Over time, petroleum revenues would be used to strengthen the capacity and productivity of the NMC—akin to local content, national participation, national presence, and control and ownership of the mining sector.

# 4 Conclusion & Recommendations

## 4.1 Conclusion

The lessons drawn from Ecuador's experience with the oil and gas sector speak to the importance of political goodwill, institutional innovativeness, and national commitment, in crafting and implementing, amidst difficulty, a strategic framework for promoting sustainability, efficiency, and developing an exit strategy by a petroleum-depend economy. Although Ecuador may have taken decades to regain control over the petroleum sector, the country has, since 2006, rediscovered its place in the industry. Its emphasis on institutional and structural reforms, local content and national participation, diversification of the economy and energy sector, utilisation of oil revenues to build infrastructure and provide political goods, and identification of strategic areas of investment for future generations provide key defining features of a refocused polity. It may be that the country has received huge amounts of money in the form of Chinese funding for oil and gas supplies, to achieve these development ends.<sup>138</sup> It may be that the country had some reserve funds which were then spent on development. It may be the case that Ecuador, through rationalisation of institutional operations and reduction of wasteful expenditure and corruption, all of which may have been part of its new social development program, the bottom line is that the country was able to save huge amounts of money thanks to high oil prices during the period. Whatever the case, Ecuador's new interventions led to tremendous success in the country's economy, infrastructure, oil and gas sector itself, social services provision, and have created incentives for strategic investment in R&D. Political goodwill was central to this change.

Ecuador, however, faces environmental challenges. The biggest challenge lies in the implications of exploiting oil and gas deposits underneath the Yasuni National Park and Ethnic Reserve. This also raises concerns about the fate of indigenous communities inhabiting the forests constituting the park, and their livelihoods. Even though measures may be undertaken to provide corporate social responsibility (CSR) goodies like building schools, sports grounds, and health centres as I observed Repsol did in the Yasuni Ethnic Reserve, livelihood change is always slower than the rate of oil-wealth exploitation. MNCs, NOCs, all are interested less in the wellbeing of affected communities and more in, as one observer has put it: "getting the oil out of the ground, getting oil into the market, and getting money in the wallet."<sup>139</sup> These concerns indicate the evolving ecological, biodiversity, indigenous rights, climate-change, and public health concerns that nascent as well as pre-existing oil economies have to contend with.<sup>140</sup> Ecuador has not answered these questions. But within and beyond Latin America, policy thinking and practice about these issues remains growing. We wait to see what the future holds.

<sup>138</sup> This concern was further revealed through ordinary interactions with Ecuadorians in Quito, November 2016.

<sup>139</sup> Observation by one of the former officials of a donor agency in Uganda, Kampala, 28<sup>th</sup> February 2017.

<sup>140</sup> Pellegrini, *et al*, 'The demise of a new conservation and development policy?'



*Dinner during the Study Tour, Quito, Nov. 2016*

Ecuador has also demonstrated impressive performance in terms of institutional reforms and development, investments reflecting an exit strategy, innovativeness in environmental protection and reduction of AG flaring, and strategic investment of oil revenues. It remains commendable that solid planning and institutional coordination has transformed the Ecuadorian economy and society in one decade, providing a robust energy sector, infrastructure backbone, and a process of wealth creation and national development that makes Ecuador the region's No.1, and the world's No.5, in energy security and sovereignty. These governance strategies ought to have been undertaken during the 1970s, so that by the 1990s Ecuador would have been less dependent on oil and gas revenues. Today the country acknowledges its vulnerability and has embarked on programs that would enhance the productivity of its tourism, agriculture, and other sectors. There is ongoing debate that Ecuador needs a Sovereign Wealth Fund, as a mid-term to short-term cushion against volatilities, to cater for volatilities that result from oil price fluctuations. Chile and Norway are examples. The challenges of managing such a fund are the issues that need to be debated and institutionally catered for. These changes were foregrounded in the country after 2006 following the change in political leadership. The change brought with it ideological reorientation of the polity and renewed interest in state control over the oil sector. This allowed government to realise more returns from petro-wealth. The new leadership under Rafael Correa worked to maximize returns from the sector for current and future generations.

However, it should not take change of government to invest oil and gas revenues and exploit oil-related technological and other capabilities for a country to sustainably and

productively manage its oil sector. Instead, institutional frameworks and structures should be put in place to ensure that change of political leadership does not indicate change of control over the trajectory of national development. Such institutional formations ensure predictability of current and future behaviour and conduct with regard to governance of the oil and gas sector, and provide safeguards against institutional bankruptcy. Thus, while institutions are consciously constructed social formations, such as Correa has done in Ecuador, they should be allowed to outlive their creators while remaining adaptive to changing circumstances.

Uganda has made attempts to craft similar institutional forms, possibly displaying earlier learning than Ecuador did. Major institutions have been put in place, and reforms are on-going. Despite the fall in oil prices by 2016 multinational oil companies remained in operation in Uganda. On paper the country has governance frameworks which have minimum pointers to its interest in continuous institutional innovativeness, reforms, and adaptations; provisions on environmental protections and respect for the rights of affected communities; caution to avoid sacrificing other key sectors of the economy at the altar of petro-exploitation; and there is at least some political rhetoric indicating the intention to ring-fence petroleum revenues to infrastructure development and human capacity development.<sup>141</sup> The lesson is clear: governments of oil-rich countries, and the societies over which they rule, ought to not wait for negative impacts of the petroleum sector on the economy, environment, and socio-political configurations of their country. Instead, acting proactively, governments can learn important lessons on institutional design, zero-flaring of AG and related environmental cushions, strategic investment of petroleum revenues, energy and economic diversification, and promotion of meaningful local content and national participation in order to ensure efficiency and sustainability.

## 4.2 Recommendations

- **Continue with Institutional Development:** Ecuador, like Uganda, needs to continue with a process of institutional capacity building and strengthening in order to improve governance of the oil and gas sector.
- **Measure localness of Local Content:** Both countries need to develop tools for assessing the percentage of products and/or services imported or produced/supplied by local suppliers in order to *determine the localness of local content*. This requires an in-depth inquiry in the productive capacity of local companies, use of local raw materials and local human resources, for there can seem a façade of high-level local content while this content is itself foreign. Localness transcends being locally domiciled.
- **Give equal Priority to other Sectors:** Both Ecuador and Uganda need to lay stronger

<sup>141</sup> Hon. Hood Katuramu, a legislator and member of Uganda's ruling National Resistance Movement, indicated to CSOs which were meeting the Parliamentary Committee on Commissions, Statutory Authorities and State Enterprises (COSASE), on 15th March 2017, that Cabinet has resolved to ring-fence oil revenues for infrastructure development among others, a claim not yet verified. President Yoweri Museveni has, on several occasions, spoken on the same issue. The researcher, however, is aware of the distinction between political rhetoric and governmental action, and the importance of state structures in these efforts. The future will tell.

emphasis than is presently the case on the development of other sectors of the economy. Just as Ecuador has not exploited immense opportunities presented by the tourism industry, Uganda should not relegate agriculture, industrialisation, human development and R&D even as both countries focus on infrastructure development.

- **Careful on nationalisation and/or liberalisation of the petroleum sector:** Uganda should tread carefully in the debate between *nationalisation* (national participation via state-owned oil companies) and *privatisation* (via private-sector international oil companies): excessive nationalisation is not a good choice. Neither is excessive privatisation. A middle-ground position—which stresses mutual coexistence between MNOCs and NOCs as well as other local/domestic stakeholders—should be crafted during countries’ early stages in the sector.
- **Capacity Development for Future Takeover:** States may be compelled to take over the ruins and remains of MNOCs in future as Ecuador did. This can be done smoothly in a manner that avoids legal battles, and other pressures on the state’s politico-bureaucratic leadership. Emphasis on local capacity development is important at the beginning of the industry and a key element of this possible exit strategy. Uganda should undertake focused skills training that will smoothen future takeover of the sector by local technical and managerial expertise in case MNOCs withdraw or are compelled to close shop. Ecuador has done so.
- **Benchmark the OGE&EE and similar Projects:** Governments and oil companies in East Africa should benchmark the OGE&EE and similar projects in order to avoid AG flaring while also generating valuable electric energy. They should also consider the practice of pumping waste water in deep underground wells—in Ecuador Petroamazonas pumps waste water three (03) kilometres underground—to avoid contamination of water sources and the environment. Uganda’s legal provisions on zero flaring need strengthening, implementation and monitoring, and additional innovations on environmental sensitivity. The efficacy of waste-water-recycling needs constant monitoring.
- **More than laws, regulations, guidelines—on paper:** oil governance transcends governance frameworks on paper. Laws alone are not enough; exemplary leadership and conduct should be demonstrated, not just stated on paper. Systems of implementation, practices, and good, professional and patriotic conduct of key stakeholders are equally—if not more—important. This demands bureaucratic commitment and political will. The experience of Ecuador and Uganda during and after the court cases referred to in this study indicates that respect for rules of the game requires moral and ethical conduct by public officials, whose work ethic, patriotic commitment, and good judgement are important here.
- **Strengthen the institutional capacity and mandate of regulatory institutions:** Regulatory and independent third party oversight agencies and institutions should be allowed to operate in a free environment with cross-institutional checks. This will allow



for monitoring of institutional conduct, follow-up on commitments and promises of oil companies, the state, MNCs and the rest of the society.

- **Establish mechanisms for institutional coordination:** Like Ecuador established a coordinating ministry, Uganda should strengthen the coordinating mandate and capacities of relevant institutions: PAU, Directorate of Petroleum, Parliament and other key state institutions. Coordination between ministries and agencies, on such issues as land, energy, environment, and mineral development, revenues management, should be facilitated to ensure regular exchanges of information. Instead of sectoral–institutional separatism, there is need to create synergies from the efforts of various players in the sector toward a common goal.
- **Establish an ecosystem for Quality Control:** Key stakeholders should be impressed and convinced about the importance of an ecosystem whereby the networks, constituted through national committees for quality control, for instance, can help in monitoring and measuring local content practices and outcomes and high quality investments. The debate about, and practice of, local content, demands thinking and doing the needful on local capacity development and quality assurance for the oil and gas industry is subject to international standards. Local suppliers and producers must comply with these standards, benchmarks, and best practices.
- **Identify and exploit other Energy Mixes:** The focus on oil and gas should not cloud out the potentialities of exploiting existing energy mixes that can provide clean and renewable energy. Energy and productive diversification are major development challenges. Ecuador’s commitment to implement the plans that have been made in this respect—the move to hydro-energy, wind energy, and other forms of green energy—is important for considering what alternative energy opportunities exist. In terms of clean energy, *it is unclear whether Africa has enough water resources to generate the hydro-energy that can feed a developed African continent.*
- **Develop the Mineral Sector:** Uganda should give its mining industry sufficient attention as part of the country's diversification strategy. The country needs a National Mining Company (NMC) to work alongside private-sector companies. The NMC, just like Ecuador's, should embody the State's interest in the sector. The country's huge mineral potential, the quantities and qualities and nature of our minerals, should provide impetus to act upon this viewpoint. When petroleum revenues become available in future, they should be used to strengthen the capacity and productivity of the NMC - akin to local content, national participation, national presence, and state control over and ownership of the mining sector.
- **More Research:** We speak and write—but know little—about the origins, metamorphosis, and mechanisms of political goodwill and bureaucratic commitment. If these factors, call them attributes, are important for efficiency, sustainability and exit strategy in the oil and gas sector, indeed in any society’s development trajectory, then we need an in-depth inquiry in the processes of engendering and/or enhancing

political goodwill and bureaucratic commitment. Why and when do these factors obtain/arise? How can these attributes be built in a society or social system? Ecuador made significant strides since 2006, mainly because of the goodwill of its political leadership, yet political will, bureaucratic commitment, and leadership capacity to speed up national development using available resources remains elusive in many African countries. Such study would solve serious development puzzles.



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# ANNEXES

## Annex I: Major Post-2006 Developments in Uganda's Oil and Gas Sector

Year	Major Development	Outcome
2008	Cabinet of the Republic of Uganda approves the National Oil and Gas Policy for Uganda; its implementation commences	Uganda's National Oil and Gas Policy (NOGP). Start of policy implementation
2008	Government contracted Foster Wheeler Energy Limited Ltd (UK) to conduct a feasibility study on building a refinery in Uganda, 2010/2011.	Contract for Feasibility Study
2010/2011	Feasibility Study on Refining undertaken by Government; implementation commences	Refinery prospects. Study recommends that development of 60,000 bb/day refinery was commercially viable with a Net Present Value (NPV) of US\$ 3.2 billion at a 10% discount rate and an Internal Rate of Return (IRR) of 33%.
2008 to 2014	21 discoveries made. 116 wells drilled 6.5 billion barrels of STOIP confirmed 499 billion cubic feet of gas observed	Initial implementation of the NOGP
2012	Oil and Gas Revenue Management Policy approved Tullow Oil's acquisition of Heritage assets is finalised and Farms down to CNOOC and Total Resettlement Action Plan (RAP) to guide acquisition of the required land was undertaken	Oil/Gas-Related Policy formulated CNOOC and Total in the 'Game' RAP in place; land acquisition ongoing
2013	The Petroleum (Exploration, Development and Production) Act 2013 enacted The Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act 2013 enacted First production licence issued over the Kingfisher field	Related Laws Production Licence

Year	Major Development	Outcome
April 2014	Memorandum of Understanding (MoU) on Commercialisation signed between Government and Licensed oil companies – Joint Venture Partners (JVPs)	Government-Companies understanding Increased company activity Infrastructure development
Since 2014	Land acquisitions and plans for construction of Refinery and Pipelines	Displacement of peoples. Land occupation. Preliminary works on the Refinery and Pipelines
2015	Public Finance Management Act PEPD becomes Directorate Petroleum Authority of Uganda Government of Uganda Issues Five (5) Petroleum Production Licences to Tullow Uganda Operations Pty Limited and Three (3) Petroleum Production Licences to Total Uganda B.V. Established	Framework for managing Oil Revenues Directorate of Petroleum Petroleum Authority constituted, Director appointed  Production Licences
2016	National Elections (Presidential, Parliamentary, Local Government) JVPs develop a Land Acquisition and Resettlement Frameworks (LARF), subject it to consultations with stakeholders including CSOs Consultations begin on the Local Content Policy for Uganda's Oil and Gas Sector	Ruling Party/Government voted into/ retains power  LARF  Draft Local Content Policy

## Annex II: Extract from the Law: Legal Restrictions on Gas Flaring in Uganda

**Act 4** *Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act* **2013**

### PART IV—VENTING AND FLARING

#### **38. Restrictions on flaring or venting.**

(1) A licensee shall not flare or vent petroleum in excess of the quantities needed for normal operational safety without the approval of the Minister on the advice of the Authority.

(2) All facilities shall be planned and constructed so as to avoid any gas flaring or venting under normal operating conditions.

(3) Disposal of gas by flaring or venting for normal operational safety under subsection (1) shall be by consent in writing of the Authority where—

- (a) it is necessary for the safety of the midstream operations; or
- (b) it is necessary to comply with a requirement imposed by or under any law in Uganda.

(4) In the case of an emergency, the licensee may flare or vent without the consent of the Authority under subsection (3).

(5) Where a licensee vents or flares under subsection (4), the licensee shall—

- (a) ensure that the venting or flaring is kept at the lowest possible level; and
- (b) submit to the Authority a technical report detailing the nature and circumstances that caused the emergency situation.

(6) A person who contravenes subsection (5) commits an offence and on conviction is liable to pay a fine not exceeding three hundred thousand currency points.

## Annex III: Recent Institutional Evolution in Uganda's Petroleum Sector

Year	Institutional Innovation/Establishment
1985	The first Petroleum (Exploration and Production) Act was enacted (now repealed).
1991	<ul style="list-style-type: none"> <li>• First Production Sharing Agreement (PSA) between Petrofina Exploration Uganda and Government signed over the entire Albertine Graben.</li> <li>• Petroleum Unit in the Geological Survey and Mines Department of the Ministry transformed to the Petroleum Exploration and Production Department (PEPD).</li> <li>• PEPD commences follow up of ground geological and geophysical surveys in areas identified by the aeromagnetic data.</li> </ul>
1992	Universities: Colombia (USA), Leeds (UK), Lubumbashi (Zaire) and PEPD acquire gravity data on Lake Albert in an effort to understand the Graben
1993	Petroleum (Exploration and Production) Regulations come into force
1997-2007	Different Licensing mandates for the Exploration of different areas in the country, acquisition of seismic data, tests, and more technical undertakings
2006-2007	Development of the National Oil and Gas Policy
2008	Cabinet approves the National Oil and Gas Policy (NOGP) for Uganda
2008-2012	Development of the Oil and Gas Revenue Management Policy. Policy approved 2012
2012-2013	<ul style="list-style-type: none"> <li>• The Petroleum (Exploration, Development and Production) Act 2013 enacted</li> <li>• The Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act 2013 enacted</li> <li>• First production licence issued over the Kingfisher field, Albertine Graben</li> </ul>
April 2014	Memorandum of Understanding (MoU) on Commercialisation signed between Government and Licensed oil companies
Since 2014-2016	<ul style="list-style-type: none"> <li>• Land acquisitions frameworks consistent with plans for construction of Refinery and Pipelines</li> <li>• Land Acquisition and Resettlement Framework developed</li> <li>• National Local Content Policy for Uganda (not yet approved as of February 2017)</li> </ul>
2015	<ul style="list-style-type: none"> <li>• Enactment of the Public Finance Management Act 2015</li> </ul>
Sept. 2015	Parliamentary approval of presidential appointees to the Petroleum Authority of Uganda (PAU).
Oct. 2015	Inauguration of the Uganda National Oil Company (UNOC)
2016-2017	Consultations with Civil Society on National Local content Policy, Land Acquisition and Resettlement Framework, and draft Resettlement Policy

## Annex IV: About Yasuni National Park, Ecuador

**Yasuni National Park** is one of—if not the very—most biologically diverse area on Earth, and is at the centre of a small zone where amphibian, bird, mammal, and vascular plant diversity maximise their productivity in the Western Hemisphere. The park breaks world records for local-scale (less than 100 km<sup>2</sup>) tree, amphibian, and bat species richness, and is rich in birds and mammals—holding a record 150 amphibian species and amphibian diversity: The total of the park’s amphibian species are more than the United States and Canada combined. Reptile species in the park are very high with 121 documented species. Covering less than 0.15% of the Amazon Basin, Yasuni is home to approximately one-third of amphibian and reptile species, harbours high-level fish diversity with 382 known species, a number greater than all fish species found in the whole Mississippi River Basin (USA). Yasuni National Park is home to an estimated 800 million barrels of crude oil – 20% of Ecuador’s reserves. These are located in the Ishpingo Tiputini, and Tambococha (ITT) oil fields.

Environmentalists, indigenous communities, scientists, and activists urged Ecuador to leave these resources untapped. Initial opposition from these and other actors, led President Rafael Correa to launch a referendum-like initiative, called the Yasuni-ITT Initiative, to protect the park’s natural resources, in June 2007. The initiative involved a promise to leave the park undisturbed, and hence prevent 400 million metric tons of carbon dioxide from entering the air, in exchange for compensation from the international community. A Trust Fund was established. By 2009 pledges of support from around the world came to around 1.7 billion dollars. Ecuador hoped to generate funds worth at least 50% of the profits that it would receive were it to utilize the Yasuni-ITT oil reserves, totalling about \$3.6 billion over 12 years. Environmentalists hailed the plan as setting precedent for reducing the burden of environmental preservation on the world’s poorer countries. International celebrities and leaders joined in the flare.<sup>142</sup> During the initiative’s six-year history, only \$336 million had been pledged, and only \$13.3 million of that had actually been delivered.

A disagreement erupted on how to manage these funds. Ecuador insisted that the government alone would decide how any funds raised were spent. International funders wanted to prescribe for Ecuador how such money would be spent. This apparently threatened Ecuadorian sovereignty. In July 2013, President Correa formed a commission to evaluate the Yasuni-ITT Initiative’s progress. The commission concluded that the estimated economic results of conservation were not sufficient; moreover the promised funding was not forthcoming. The promise had not been kept—six years on. Correa scrapped the plan claiming on 15 August 2013: “The world has failed us.” He called the developed world hypocrites who emit most of the world’s greenhouse gases while expecting poor nations to sacrifice economic progress for the environment whose destruction they (developing countries) least contribute to. Through an Executive Order, Correa liquidated the Yasuni-ITT Trust Fund, formally ending the initiative. It seems clear, therefore, that Ecuador will exploit the petroleum deposits in the National Park. *How this will be done in a manner that does not threaten the extant biodiversity and indigenous communities’ existential spaces remains to be seen.*

<sup>142</sup> These included: Actors Leonardo DiCaprio and Edward Norton, filmmaker and global ecological activist/scientist Michael Charles Tobias, and former Vice President of the United States Al Gore were among those who pledged support to the Ecuadorian government. Countries contributing funds included Turkey, Chile, Colombia, Georgia, Australia, Spain and Belgium. Source: Grupo FARO

# Annex V: Occidental Exploration & Production Company (OEP) Vs. Ecuador

## Occidental Exploration and Production Company v The Republic of Ecuador

*“The Tribunal found that the contract did not include VAT refunds, and that the Claimant was entitled to such refunds under the Ecuadorian tax legislation and the law of the Andean Community. The Tribunal found further that the treatment accorded by Ecuador to the Claimant was less favourable than that accorded to certain national investors who continued to benefit from VAT refunds, which constituted a violation of the national treatment obligation. The Tribunal also found that Ecuador’s conduct violated the obligations to accord fair and equitable treatment and full protection and security. Other BIT claims were rejected. In compensation, the Tribunal awarded the amounts of VAT paid by Occidental, whose refund was requested by it and denied by Ecuador, as well as the amounts of VAT paid by Occidental but not requested for refund. As a “conservative measure”, the Tribunal reduced the total amount by 1.5% to account for possible impropriety of invoices and other defects. The Tribunal refused to award future damages, i.e. the amounts of VAT to be paid and refunded in the future, as “contingent and indeterminate”. The Tribunal took measures to prevent Occidental from obtaining ‘double recovery’ given that domestic proceedings dealing with the same matter were still pending at the time of the arbitral award. Interest was awarded using, as a basis, Ecuadorian legislation applicable to delays of tax obligations but reduced the resultant amount by 50%...*

### Implications/Initial Analysis

- This case, similarly to *Feldman*, poses a question of **relationship between restitution and compensation for damages**. If a State unlawfully deprives an investor of property and then returns this property, this is restitution. Here, the subject of deprivation was not real or movable property but money. The State was ordered to return to the investor the money that it had been unlawfully withholding; therefore this appears to be a case of monetary restitution.
- In this non-expropriatory case, the Tribunal did not discuss the **standard of compensation** – presumably because there was no need to value damages, as the latter consisted of an easily ascertainable monetary amount of VAT paid.
- **Conservative estimation**. The Tribunal adjusted the amount of damages by a “conservative measure” in order to ensure that compensation did not exceed the actual amount of VAT owed to Occidental. Generally, tribunals seem to prefer applying conservative analysis of damages, in order to avoid excessive compensation.
- **The amount of interest** was also adjusted downwards, in line with the Tribunal’s conservative approach (although without specific reasoning).
- The Tribunal reverted to **domestic law** when awarding interest, although the award was made under the BIT.
- The rate used to calculate post-award interest was higher than that used for pre-award interest.
- The Tribunal dismissed the **future damages** claim on the basis that these damages were “contingent and indeterminate” (taxes still had to be paid and requested for refund). This approach seems to correspond to that taken in other cases of **continuous breach**, eg *LG&E v Argentina* (future dividends) and *Nykomb v Latvia* (future payments under a contract).
- The Tribunal thought it necessary to prevent the Complainant from obtaining ‘**double recovery**’, the possibility of which was present given the pending proceedings in domestic courts on the same subject-matter.”

Ruling ([http://www.biicl.org/files/3914\\_2004\\_occidental\\_v\\_ecuador.pdf](http://www.biicl.org/files/3914_2004_occidental_v_ecuador.pdf), 23 Feb. 2017)

## Annex VI: World Bank On AG Flaring

- About 140 billion cubic meters of AG are released annually, yet this AG is enough to produce 750 billion kWh power
- About 350 million tons of CO<sub>2</sub> emissions result from AG flaring annually, equivalent to about 77 million cars' emissions of the same gas
- The black carbon from flares [tends to] deposit upon snow and ice caps, causing melting of these frozen waters
- Under-developed and poorly functioning markets and infrastructure discourage investments in flare elimination
- A conducive policy environment is needed to eliminate AG flaring
- Distance from AG/energy production points to the final users matters
- Management of gas characteristics for flared gas is technically important in making it a viable investment option.<sup>143</sup>

<sup>143</sup> World Bank, 2015 (Sept. 22-23). Global Initiative: Combining Forces to End Routine Gas Flaring, Washington DC: World Bank. WB/IGU/SE4ALL Regional Gas Seminar Maputo. (from <http://www.igu.org/sites/default/files/7-3%20World%20Bank%20-%20Anas%20Benbarka%20-%20Gas%20Competence%20Seminar%20-%20September%2023%202015.pdf>, 21 Nov. 16)



## Annex VII: About the OGE&EE Project

Berend van den Berg, the initiator, revealed that the OGE&EE project was initially designed as a \$1.2 billion programme but has only been capitalised to about US\$620 million, and consists some 120 projects in an area covering 25,000sq km, 17 oil blocks, 56 oil fields and 66 facilities. The project has multiple power plants which use AG as fuel to produce more than 325MW of power; over 900kms power distribution facilities; and approximately 100km of gas gathering and transportation facilities, bringing deteriorated facilities up to standard and implementing waste heat recovery systems. This project interconnects the integrated oil industry electric grid to the national electric grid, paving the way to optimising excess hydro-electric power during off-peak hours. This, Behrend biblically described as “transforming water into oil”, *turning waste into wealth*. Research and development (R&D) in such areas as flexible fuel solutions, which can use AG, crude oil, condensates, or a combination of each, is also undertaken. Instead of flaring the AG, it is converted to power, monetised by means of virtual pipelines, and made technically and economically viable to bring to market small volumes of remote AG. While previous attempts have been made for natural gas (NG), the OGE&EE project uses only AG “with low volumes at the source and high CO<sup>2</sup>, heavier hydrocarbons and water content.”<sup>144</sup> The project did not have its own R&D centre, but relied on WARTSILA, a Finnish corporation with net sales totalling EUR 4.8 billion. The company manufactures and services power sources and other equipment in the marine and energy markets, with emphasis on sustainable innovation and total efficiency.<sup>145</sup>

The OGE&EE’s overall objective is to reduce the carbon footprint per extracted barrel of oil (both in terms of emissions, costs, and other parameters).<sup>146</sup> The project has already generated net savings of more than US\$ 600,000,000 and reduced close to 1,000,000 tons of CO<sub>2</sub>. In terms of design and funding, the project designers did not have R&D capacity. However, they dictated the design criteria whereby the upfront expenses were assumed by WARTSILA under a Service Agreement in which the OGE&EE only paid subject to performance (“no cure no pay”) on a US\$/kWh basis. There is also Combined Cycle Power/Heat for Processing Facilities, which was also funded by the technology company based on design criteria provided by the OGE&EE group. The payment was done after a 10 day performance test. A Virtual Pipeline for Stranded Associated Gas (VPSAG) was conceptually designed by the OGE&EE and then a development agency, the Inter-American Development Bank, funded it on condition that it would be validated by a third party. Presently, the OGE&EE is looking for funding for a pilot project on similar innovations. The public sector tends to have reservations regarding funding R&D, since the authorities normally fear the fact that not all R&D projects become successful. So, OGE&EE transferred virtually all the R&D risk to the technology companies (pay per view). The overall R&D budget was in the range of 3–4% of the total Project Cost (we invested over US\$ 650,000,000 whereby the R&D funds were in the range of US\$ 30,000,000).

<sup>144</sup> Interactions during visit to Amazon region, Nov. 2016

<sup>145</sup> Details about the company, which relate to oil and gas and energy sectors, are found here: <http://www.wartsila.com/oil-gas> and <http://www.wartsila.com/energy>.

<sup>146</sup> Berend van der Berg, 2017, Email Correspondence with the Author, February 2017. All material in this paragraph is derived from this email correspondence.

85% of these R&D expenses were financed by technology companies and paid over time on a performance basis. Thus, the OGE&EE's R&D works were mainly funded by third parties (technology companies) whereby payments were only made based on actual performance. Internally the OGE&EE, nevertheless, did the following R&D work:

- High pressure associated gas buffers to compensate peaks and lows in associate gas supply.
- Adjustment prime movers so that, with the minimum gas treatment, they could run on raw associate gas (thereby reducing the overall investment cost and maximizing the BTUs in the associated gas as fuel for power generation).
- Change from overhead to underground cables even for higher voltages.

With such projects as the OGE&EE, there is always a tremendous pressure to increase local content. Such may be the right way to go. Nevertheless, there are risks when trying to increase the local content without matching the local content with local competence. As van den Berg warns, “any work in the hands of the wrong people will generate unsatisfactory results. It is for this reason that I strongly believe that the push for local content has to go hand in hand with capacity building through either joint ventures, “inplants” (I was hired for 8 years to work together with Ecuadorians working for the national oil company), etc.”<sup>147</sup> These initiatives were allowed because of government's interest in expanding energy production.

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<sup>147</sup> Van den Berg, Email Correspondence.



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Dr Sabastiano RWENGABO is a Research Fellow at a Kampala-based regional think tank, the Advocates Coalition for Development and Environment (ACODE), where he researches on the Governance of Oil and Gas Wealth in Uganda and East Africa, and is a member of the Evidence and Lessons from Latin America and Africa (ELLA) Community born of the ELLA Learning Alliance and Study Tour on Local Content in the Petroleum sectors in both continents. He holds a Doctor of Philosophy (PhD) in Political Science from the National University of Singapore (NUS). He was also a Research Scholar, President's Graduate Fellow, and Graduate Teacher at the same University before re-joining the Social Sciences community in Africa in 2015. Dr. Rwengabo has researched and published on Civil-Military Relations, International Politics and Security, Regionalism, Urban Security, and Democratization. Currently a Country Expert for the Varieties of Democracy (V-Dem) Project of the Department of Political Science, University of Gothenburg, Rwengabo is also interested in strategic analysis, governance of strategic resources, the evolution of regional and international organisation, peace building and conflicts resolution, nation building, and transformational leadership development especially in/on Africa.



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