Hydrocarbon Resources in Tanzania: Achieving Benefits with Robust Protection

Sufian H. Bukurura and Donald E. Mmari

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Suggested Citation:
Sufian Hemed Bukurura and Donald Eliapenda Mmari ‘Hydrocarbon resources in Tanzania: Achieving benefits with robust protection’

Suggested Keywords:
Hydrocarbons, Natural gas policy, Robust protection,
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Abstract

Natural gas, like many other natural endowments, is a finite resource. Its consumption today is a subtraction from, and detrimental to, the resources of future generations. Therefore, the extraction of finite resources must be based on, and guided by, broad and long-term considerations instead of being limited to immediate and short-term proceeds and benefits. Put differently, inasmuch as investors who devote huge financial and technological resources to prospecting for natural gas must recover their costs and profit from the activity, the immediate and short-term earnings derived from their discoveries should not be oblivious to long-term and strategic benefits for future generations in the host country. Using historical and contemporary sources as well as theoretical materials, this paper provides a partial explanation of Article 2.4 of the Natural Gas Policy of Tanzania. In a discussion of three thematic issues, the paper shows that Tanzania is not alone in seeking the maximum possible long-term benefits from its natural gas. In other words, efforts to protect national interests in natural gas reserves should not be seen as a peripheral exercise peculiar to Tanzania. Several countries around the world have successfully done the same. In view of competing and sometimes diametrically opposed interests and priorities, which in some situations are supported by powerful and influential players, this might not be as easy as it sounds. Public scrutiny of investments and investors at national as well as international levels must be robust and relentless if national interests are to be protected. In addition, the notion of local content, often construed to mean direct participation in upstream activities mainly through exploration and production, must be understood in a proper context.
Introduction

Article 2.4 of the Natural Gas Policy of Tanzania is interesting, and indeed it is a fundamental pillar of the inclusive socio-economic transformation potential of the vast natural gas resources discovered in Tanzania.

“This Policy recognizes that natural gas is a National resource that belongs to the people of the United Republic of Tanzania, and must be managed in a way that benefits the entire Tanzanian society.” (United Republic of Tanzania 2013)

This statement may sound obvious and simplistic, but the attainment of this recognition depends on many factors, including often conflicting views and interests between global industry players on the one hand, and nation states on the other. The desires of global industry players, mainly the International Oil Companies (IOCs), are to maximize returns to their shareholders and to accumulate hydrocarbon reserves for their current and future production. The desires of nation states are to maximize government take and to exercise control on hydrocarbon resources in ways that support their diverse development and political objectives.¹ One of the central questions asked here, therefore, is whether the above policy statement can find support within the context of global oil and gas industry dynamics, and amid conflicting interests and objectives and the general conditions under which it must be realized. The paper reviews some historical sources and sets out the context, drawing on global perspectives in the search for the basis and origins of the policy statement. Beyond theoretical concerns and considerations, an attempt is also made to highlight some of the practical measures and mechanisms that may be or are in place to harness the potential this statement envisages in the context of Tanzania. After outlining the critical characteristics of the oil and gas industry, the paper discusses three critical issues reflecting the following broad propositions:

- Investment patterns in oil and gas are predicated on evolving global trends and dynamics.
- Policy-making is not wholly and exclusively a technical process. A broader political economy determines policy choices and their outcomes.
- Proactive state engagement is needed to balance diverse stakeholder interests.

The totality of these propositions suggests intricate relationships between markets and states in the dynamics of investments in the sector, and a trend towards increased consciousness on protecting national interests through proactive state engagement rather than relying on market self-regulation. Recent discourses in development economics suggest that markets are institutions and are embedded in established social rules that structure their interactions. Because of existing imperfections, asymmetry of information, and associated transaction costs, institutional coordination remains a cornerstone of long-term economic growth and stability (see Coase 1937; Williamson 1985; Hodgson 1988; North 1990; Rodrik 2007).

The emergence of political will at the global level, albeit in promulgations by leaders from influential countries in the North, such as the famous 3Ts (Transparency, Tax, and Trade), provides an opportunity that must be seized by state institutions to exercise sustained attention and alertness in all negotiations with industry players to ensure that the 3Ts do not remain rhetorical. It is this

¹ Hydrocarbons are organic compounds consisting of hydrogen and carbon. Hydrocarbons can take a liquid form as benzene, which is a major constituent of crude oil, or a gaseous form as methane, commonly known as natural gas. Thus, the term hydrocarbon generally refers to both crude oil and natural gas.
attention and awareness that can support the realization of strategic, geopolitical, and long-term national interests in the petroleum industry. Article 2.4, and the Natural Gas Policy as a whole, is a home-grown tool for that purpose. As will be mentioned in subsequent sections of this paper, the grounds for the national interest in this industry date back to 1980, when the Petroleum (Exploration and Production) Act was enacted.
Investing in the petroleum industry requires substantial upfront capital expenditure for the acquisition of uncertain assets or assets with uncertain future value. It is for this reason that most significant players are those with access to huge financial and technological resources. This is partly why IOCs have been dominant players in the field.

The evolution of the industry in the late nineteenth century and throughout the first half of the twentieth century led to the emergence of IOCs, concentrated in the hands of powerful elites. However, the search for hydrocarbons has a much longer history than that conventionally discussed in the contemporary world, which centres mainly on geopolitics, geological evolution, and the economics of natural resources. Available literature suggests that the search for oil started as early as 347 AD during the pre-modern era in China, when drilling was carried out using very rudimentary tools such as bamboo poles. In various other parts of the world oil seeps were collected from sands, and drilling of shallow wells took place on a small scale in the United States, Europe, Canada, and the Persian region. A major product from these early exploration activities was kerosene, used mainly in illumination. By the early 1890s significant oil fields had been discovered in Canada, the United States, Indonesia, Persia, Peru, Venezuela, and Mexico, which were being developed on an industrial scale.

The IOCs grew in significance and remained dominant until the 1970s when the wind of resource nationalism began to give rise to host country demands for greater benefits, mainly through increased stakes in National Oil Companies (NOCs). Resource nationalism refers to acts by host countries to expropriate or change the terms on which resources are extracted and monetized to obtain greater benefits for the host countries (Clarke and Cummins, 2012). Yet resource nationalism is not to be interpreted as merely an African, Asian, or Latin American way of accumulating assets and buoying economies. As Clarke and Cummins point out, the governments of Australia, Canada, and the United Kingdom have periodically imposed royalties or higher taxes on oil and gas production, which have often met with criticism and lobbying from IOCs. The Netherlands and Norway have also used different instruments, making their government benefits from petroleum resources among the highest in the world. The economic and technological capability of IOCs gives them significant power and influence globally. In many respects these powers are used to maintain strong business and financial positions, and to minimize the potential effects of state actions on their business reputation and financial position. For example, in his 2012 book entitled “Private Empire: ExxonMobil and American Power”, Steve Coll provides an account of the relentless efforts of ExxonMobil to dilute the hypothesized relationship between oil use and climate change, and the magnitude and nature of the effects of the 1989 oil spill near Valdez port in Alaska. Partly for these reasons, investment agreements entered into by IOCs, who are by their nature transnational in their operations and in capital pooling, exhibit certain characteristics including, but not limited to, the following:

(i) high risk investment projects that demand and expend huge resources in anticipation of possible future fortunes (Hayes and Victor 2006; Stiglitz 2007);

(ii) investments are long-term in nature, covering between twenty to thirty years, if not more (Williamson 1979; Neumann and Hirschhausen 2006). Partly because of the long periods

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2 See www.petroleumphistory.org.
3 See Victor et al. (2012).
4 See Thurber (2011).
involved, uncertainty and instability of various kinds – financial, economic, social, and even political – may arise (Athias and Saussier 2007);

(iii) the enormous power exerted and influence wielded by IOCs means in effect that negotiation of investment contracts take place between unequal parties, and the resulting agreements may, in some or most cases, be unbalanced (Dufresne 2004; Haslam 2004; Stiglitz 2007);

(iv) the interests and/or priorities of the parties involved in these investment agreements are sometimes different or incompatible, and may be wholly contradictory;

(v) to a large extent these investment agreements are seen to favour contracting companies and disadvantage host countries (Stiglitz 2007; Kaushal 2009);

(vi) the industry is technically and structurally complex (Radon 2005);

(vii) investments in the subsector are normally not renowned for their transparency. In other words, the subsector is characterized by opacity and secrecy which makes it vulnerable to corruption (Dufresne 2004; McPherson and MacSearraigh 2007).

The totality of these characteristics has meant that the industry is a preserve of IOCs, and this remained the case over many years until the rise of resource nationalism set in motion the increasing importance of NOCs. As section three of this paper demonstrates, some of these stylized characteristics are changing over time, with a shift in power towards NOCs in certain countries.
Setting The Policy Statement in a Broader Context: Three Critical Issues

The thrust of the policy statement to recognize resource ownership and benefits to the people of Tanzania hardly needs debate. It is a necessity and divine purpose of resource existence. However, discourses in academia and in the policy arena are warranted with regard to how this policy statement can be realized. The positions of the debate’s participants depend very much on the political economy and their ideological influences. This paper proposes three discussion issues that are critical to the debate. These are examined in turn. The discussions are not intended to focus on a particular ideological position, but rather to reflect on the economic realities and propositions dictated by history, development trajectory, and, of course, considerations of the global and local political economy.

3.1 Investment Dynamics: Evolution and Influence

Both domestic and foreign direct investment tend to have discernible patterns. Determinants of phases and trends are very familiar to economists who study them extensively at both undergraduate and postgraduate levels (Hvozdyk and Mercer-Blackman 2010). The science of econometrics sharpens and perfects these lessons and skills at more advanced stages. In the light of the current economic situation, five aspects of oil and gas investment dynamics are important here. First, global economic transformation, particularly since the 2008 global economic and financial crises, has revealed many cracks in certain beliefs about economic fundamentals (Stiglitz 2010). For example, in the light of systemic market failures, markets can no longer and should not be solely trusted to regulate themselves (Batra 2007). The collapse of well-established banks, the abuses of professional trust, bank bailouts, and government takeover of investors’ assets in Greece are only a few highlights. As a result of resource decline, economic austerity and belt-tightening measures have become the rule rather than the exception, signifying the importance of non-market institutions in coordinating the functioning of markets and in optimizing resource utilization. As Mackintosh (1990) puts it, real markets are embedded within social and economic settings existing in society, and so their outcomes must be similarly embedded. Indeed, what works in one country may not work in others without due regard to the peculiarities of each country within a general “best practice” framework. Therefore, this entails that the protection of resources requires institutional coordination and close monitoring of the contractual arrangements and activities of IOCs, because their depth of experience and power gives them the ability to devise elaborate and well-established mechanisms to manipulate and minimise their contributions to the economies of host countries (Picciotto 1992; Braithwaite 2004; Sikka and Willmott 2010).

Second, emerging partly from the above, investment decision making has become complex as more factors have to be taken into account, including rapidly evolving geopolitics, resource nationalism, and new risks. On the one hand, emerging markets in general, and Africa in particular, are the fastest-growing economies while the rest of the world is experiencing economic stagnation, if not outright decline. This may imply changes in the flow of FDIs and influence across regions. Table 1 shows recent growth rates for selected countries, showing consistently high growth rates for Tanzania, Mozambique, Nigeria, China, and Malaysia, and much slower growth rates for the United States, the United Kingdom, Norway, and South Africa.
Table 1: Growth rates in GDP (market prices) for selected countries

<table>
<thead>
<tr>
<th>Country/Year</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanzania</td>
<td>7.4</td>
<td>6.0</td>
<td>7.0</td>
<td>6.4</td>
<td>6.9</td>
</tr>
<tr>
<td>Kenya</td>
<td>1.5</td>
<td>2.7</td>
<td>5.8</td>
<td>4.4</td>
<td>4.6</td>
</tr>
<tr>
<td>Uganda</td>
<td>8.7</td>
<td>7.3</td>
<td>5.9</td>
<td>6.6</td>
<td>3.4</td>
</tr>
<tr>
<td>Mozambique</td>
<td>6.8</td>
<td>6.3</td>
<td>7.1</td>
<td>7.3</td>
<td>7.4</td>
</tr>
<tr>
<td>Nigeria</td>
<td>6.0</td>
<td>7.0</td>
<td>8.0</td>
<td>7.4</td>
<td>6.6</td>
</tr>
<tr>
<td>Republic of South Africa</td>
<td>3.6</td>
<td>-1.5</td>
<td>3.1</td>
<td>3.5</td>
<td>2.5</td>
</tr>
<tr>
<td>China</td>
<td>9.6</td>
<td>9.2</td>
<td>10.4</td>
<td>9.3</td>
<td>7.8</td>
</tr>
<tr>
<td>Malaysia</td>
<td>4.8</td>
<td>-1.5</td>
<td>7.2</td>
<td>5.1</td>
<td>5.6</td>
</tr>
<tr>
<td>Brazil</td>
<td>5.2</td>
<td>-0.3</td>
<td>7.5</td>
<td>2.7</td>
<td>0.9</td>
</tr>
<tr>
<td>United States of America</td>
<td>-0.4</td>
<td>-3.1</td>
<td>2.4</td>
<td>1.8</td>
<td>2.2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>-1.0</td>
<td>-4.0</td>
<td>1.8</td>
<td>1.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Norway</td>
<td>0.1</td>
<td>-1.6</td>
<td>0.5</td>
<td>1.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Source: The World Bank, 2014

These growth figures provide opportunities for bilateral and multilateral economic relations, with some countries in the North seeking alliances in the South to help to spur their slowing growth, and some growing economies in the South seeking alliances within the South to help sustain their growth. Energy security appears to be an important element of current geopolitical alliances, especially in countries with the potential reserves of hydrocarbons. In particular, the back-to-back high profile visits to Africa and Tanzania by the current President of China, Xi Jinping, the former Chinese premier, Hu Jintao, the President of the United States of America, Barack Obama, and a high-powered delegation from Japan are by no means a coincidence or an accident. As recent literature suggests, Chinese development aid “generosity” to Africa appears to concern Western donors (Brautigam 2009; Schiere and Rugamba 2011). One commentator has gone an extra step— for example, asking whether Africa was turning East in its economic dealings (Schmitt 2007). The significance of China in development cooperation and aid flow has challenged the conventional aid flow from the North. Brautigam (2009), for example, shows a rapid increase in Chinese aid flows to Africa and the country’s deepening engagement policy, along with growing commercial interests. The China Commerce Yearbook of 2012 reveals that Chinese FDI flows to Africa increased by a factor of eight between 2005 and 2011. For Tanzania, aid increased by a factor of fifty-five during the same period, from $0.96 million in 2005 to $53.12 million in 2011 (Editorial Board of China 2012). The creation of the BRICS Bank also indicates the expansion of South-South cooperation in response to growth opportunities.

These changes in global investment patterns and geopolitics provide an opportunity for African states to leverage their long-term strategies for the benefit of their people. As the world enters what Deutch (2011) calls “the era of natural gas revolution”, Tanzania must seek to optimize investment in the sector to fit the predictions by Mitchell (2012) that the gas sector will definitely be among the best-performing investment categories for the foreseeable future.
Third, the discovery of significant gas reserves in the deep sea of the Indian Ocean, in blocks 1 and 3 operated by BG and Ophir, and in block 2 operated by Statoil and ExxonMobil, has occurred at a time of declining global reserves. Whereas Statoil describes its gas discoveries in Tanzania as high impact discoveries, BG/Ophir characterize their findings as world-class discoveries. This means in part that Tanzania, and the East African region in general, is no longer a frontier basin.\(^5\) This huge potential is not only recognized in global energy circles; it is also taken seriously. It must be recalled that AGIP, the first company to explore for petroleum in Tanzania, was allowed to prospect along the whole coastal basin. AGIP’s discovery in 1974 was abandoned on the grounds that reserves were too small for commercial development. This decision was reversed following the continued efforts of the TPDC to appraise the reserves, to acquire more data on the basins, and to auction more exploration blocks. Currently there are more than a dozen companies exploring in pre-defined blocks under twenty-five Production Sharing Agreements (PSAs), and exploration interests are mounting. The report of a study by Oxford Policy Management in 2013 suggests that the export potential of the current offshore reserves through Liquefied Natural Gas (LNG) exports amounts to US $5 billion a year on average from the third year of operation for twenty years, with approximate revenue to the government of $2 billion. The report further states that this revenue is equivalent to about two thirds of the development aid to Tanzania received in 2010. While this amount is substantial, it must not be viewed as a direct substitute for foreign aid, and neither should it lead to a singular focus on a particular sector in this large country, which has diverse economic sectors with significant potential for transformation and rapid inclusive growth. Thus, the oil and gas subsector has vast potential to contribute to economic transformation, but due care must be placed on investment dynamics and the multiplier relationships with the rest of the economy.

The fourth dimension is that IOCs realise that despite their long-term experience and technological muscle, their monopoly has waned over recent years. The percentage of reserves under their control and their global production ratios have become smaller and smaller over time. As their influence diminishes, others who were once marginal actors have also found their niche and become significant and established players in the oil and gas industry (Dutto et al. 2011). As a consequence, they have also captured part of the market share that was once in the hands of IOCs. As if that was not enough, new players, namely NOCs, have emerged and matured to become giants in their own right. Put differently, it is no longer the oil majors (the traditional IOCs) who call the tune as NOCs also seek to expand their portfolios (Hoyos 2007; Victor et al. 2012). Table 2 below shows that in 2012, out of the twenty-five largest oil and gas companies measured by their production in barrels of oil equivalent per day (BOED), sixteen were NOCs. According to Deloitte’s Oil and Gas Reality Check for 2013, approximately 75% of global hydrocarbon reserves are controlled by NOCs.

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\(^5\)A frontier basin is a basin where exploration activities have not been undertaken, or where they are few, sporadic or short-term, and where much of its potential resources are characterized as undiscovered.
Table 2: Largest oil and gas companies in 2012

<table>
<thead>
<tr>
<th>Company</th>
<th>Country</th>
<th>BOED (Million)</th>
<th>Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Aramco</td>
<td>Saudi Arabia</td>
<td>12.5</td>
<td>Sultanate</td>
</tr>
<tr>
<td>Gazprom</td>
<td>Russia</td>
<td>9.7</td>
<td>State</td>
</tr>
<tr>
<td>National Iranian Oil</td>
<td>Iran</td>
<td>6.4</td>
<td>State</td>
</tr>
<tr>
<td>ExxonMobil</td>
<td>United States of America</td>
<td>5.3</td>
<td>Private</td>
</tr>
<tr>
<td>PetroChina</td>
<td>China</td>
<td>4.4</td>
<td>State</td>
</tr>
<tr>
<td>BP</td>
<td>United Kingdom</td>
<td>4.1</td>
<td>Private</td>
</tr>
<tr>
<td>Royal Dutch Shell</td>
<td>Netherlands</td>
<td>3.9</td>
<td>Private</td>
</tr>
<tr>
<td>Pemex</td>
<td>Mexico</td>
<td>3.6</td>
<td>State</td>
</tr>
<tr>
<td>Chevron</td>
<td>United States of America</td>
<td>3.5</td>
<td>Private</td>
</tr>
<tr>
<td>Kuwait Petroleum Corp*</td>
<td>Kuwait</td>
<td>3.2</td>
<td>State</td>
</tr>
<tr>
<td>Abu Dhabi National Oil</td>
<td>United Arab Emirates</td>
<td>2.9</td>
<td>State</td>
</tr>
<tr>
<td>Sonatrach</td>
<td>Algeria</td>
<td>2.7</td>
<td>State</td>
</tr>
<tr>
<td>TOTAL</td>
<td>France</td>
<td>2.7</td>
<td>Private</td>
</tr>
<tr>
<td>Petrobras</td>
<td>Brazil</td>
<td>2.6</td>
<td>State</td>
</tr>
<tr>
<td>Rosneft</td>
<td>Russia</td>
<td>2.6</td>
<td>State</td>
</tr>
<tr>
<td>Iraqi Oil Ministry</td>
<td>Iraqi</td>
<td>2.3</td>
<td>State</td>
</tr>
<tr>
<td>Qatar Petroleum</td>
<td>Qatar</td>
<td>2.3</td>
<td>State</td>
</tr>
<tr>
<td>Lukoil</td>
<td>Russia</td>
<td>2.2</td>
<td>Private</td>
</tr>
<tr>
<td>Eni</td>
<td>Italy</td>
<td>2.2</td>
<td>Private</td>
</tr>
<tr>
<td>Statoil</td>
<td>Norway</td>
<td>2.1</td>
<td>State/Private</td>
</tr>
<tr>
<td>ConocoPhillips</td>
<td>United States of America</td>
<td>2.0</td>
<td>Private</td>
</tr>
<tr>
<td>Petroleos de Venezuela</td>
<td>Venezuela</td>
<td>1.9</td>
<td>State</td>
</tr>
<tr>
<td>Sinopec</td>
<td>China</td>
<td>1.6</td>
<td>State</td>
</tr>
<tr>
<td>Nigerian National Petroleum</td>
<td>Nigeria</td>
<td>1.4</td>
<td>State</td>
</tr>
<tr>
<td>Petronas</td>
<td>Malaysia</td>
<td>1.4</td>
<td>State</td>
</tr>
</tbody>
</table>

*Nationalized from Chevron & BP in 1975
Source: Forbes Magazine rankings, 2012

These developments have given rise to new approaches and dynamics in the industry (Kearney Consulting 2011). Strategic collaboration is now preferred to competition in the whole oil and gas value chain – upstream, midstream, and downstream.

Fifth, oil and gas resources offer more than just economic returns. Therefore, in addition to campaigning hard and tirelessly for increased government take as well as short- and medium-term benefits, resource-rich countries have increasingly and sharply become aware of and are seeking long-term strategic and geopolitical (including environmental protection) as well as energy security-related benefits (Victor et al. 2006; International Gas Union 2012). These geopolitical benefits have broader and longer-term impacts on host countries.
To this end, some host countries have recognized the limits of, and are turning away from, concession and production sharing agreements (PSAs) in favour of service agreements (Kretzschmar et al. 2010). This trend suggests that concessions are not necessarily the best for host countries, in contrast to the view that in developing countries, taxation systems and tax-collecting bodies and officials are not technically astute enough to deal with taxation of investment companies under production-sharing agreements (Campbell 2003; Duruigbo 2005). It is tempting at this point to discuss briefly the contrast between concessions and the PSAs, the two most common fiscal regimes, and why this matters for a country like Tanzania.

Under the concessionary system, also known also as the royalty or tax system, the government cedes the entire control of its hydrocarbon resources to oil companies. The company under concession controls all the oil or gas under its license areas, from exploration to production and marketing. In other words, the company obtains full lifting entitlement. The company’s only obligation is to pay royalties at an agreed percent, surface rents, corporate income taxes, and additional profit taxes where applicable.

The second system, the contractual system, comprises service contracts and production sharing agreements (PSAs). For the purpose of this paper the focus is on PSAs, a model applied in Tanzania. Under PSAs, the state retains the title to its hydrocarbons in both licensed and unlicensed areas, and through NOCs it controls exploration and production. The IOC enters into agreements with the state and NOCs, which are often primary license holders, to explore for and produce hydrocarbons under agreement to share profits in pre-determined proportions. The profit sharing takes into account the allowable recovery costs of exploration, development, and production, in addition to royalties, surface rents, and corporate taxes on profits. More often, these agreements provide for the participation of NOCs by an agreed proportion in each license area, through either direct cash contributions or carried interests. Table 3 below summarizes the main distinctions between the two types of fiscal system.

### Table 3: Differences between concessionary and contractual systems

<table>
<thead>
<tr>
<th>Concessionary systems</th>
<th>Contractual systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>In its most basic form, a concessionary system has three components: royalties; deductions (such as operating costs, depreciation, depletion and amortization, intangible drilling costs); and tax.</td>
<td>Under a production sharing contract/agreement (PSC/A), the contractor receives a share of production for services performed. In its most basic form, it has four components: royalties; cost recovery; profit oil; and tax.</td>
</tr>
<tr>
<td>The royalty is normally a percentage of the proceeds of the sale of hydrocarbons. It can be determined on a sliding scale, the terms of which may be negotiable or biddable, and paid in cash or in kind. The royalty represents a cost of doing business and is thus tax-deductible.</td>
<td>Similar to concessionary systems, but normally royalties are not cost recoverable.</td>
</tr>
</tbody>
</table>
The definition of fiscal costs is described in the county’s legislation or in a particular concession agreement. Royalties and operating expenditures are normally expended in the year in which they occur, and depreciation is calculated according to applicable legislation. Some countries allow for deduction of investment credits, interest on financing, and bonuses.

Fiscal costs are defined and rules for amortization and depreciation are established in the legislation of a country in the particular PSC. After payment of royalties, the contractor is allowed to recover costs in accordance with contractual provisions (a cost recovery limit may apply). The remainder of the production is split between the host government and the oil company at a stipulated (often negotiated) rate.

The taxable income under a concessionary agreement may be taxed at the country’s basic corporate tax rate. Special investment incentive programmes and special resource taxes may also apply. Tax losses are normally carried forward until full recovery.

Corporate taxes may apply or may be paid by the host government or its NOC on behalf of the contractor. Income tax is calculated on taxable income (revenues net of royalties, allowable costs, and government share of profit oil). Tax losses are normally carried forward until full recovery. In most countries, when cost recovery limits exist the company’s share of profit oil in any given accounting period is not the tax base.

Source: Tordo 2007

This distinction is important, and indeed it matters for Tanzania. While oil contracts in general tend to be regressive, as Johnston (2007) points out, concession systems tend to be more regressive. As oil prices rise, the revenue to the government rises, but the share of government take declines. This is not the only reason to prefer PSAs to concessions, since states can enact provisions to tax additional or windfall profits arising from substantial rises in the price of hydrocarbons. Two more reasons stand out for this preference. First, PSAs allow the NOC to develop industry expertise through direct participation and via the control of exploration and production activities. Most PSAs in Tanzania call for the TPDC’s right of participation up to 20%. It should be noted that this participation begins only after the discovery of oil or gas. IOCs carry all the exploration risks, such that if they find no oil or gas after spending massive amounts of capital in exploration, they simply surrender the blocks and leave empty-handed. Under PSAs, the state monitors the implementation of agreed work programmes and costs very closely through its NOC to ensure that only eligible costs are allowable for recovery, and that the timing of work is consistent with national desires. The second is the lifting entitlement of its share of cost oil or gas and profit oil or gas. This means that the state can elect to export its share or use it in the domestic market, depending on its need. The Natural Gas Policy clearly states its preference to satisfy domestic obligation, which may not necessarily coincide with the interests of IOCs.

The five aspects highlighted above are important in at least two respects: first, as pointers to and understanding of the global economic landscape and trends within which Tanzania operates; and second, to inform decision-making processes regarding the development of natural gas resources for the long-term benefit of the country. In doing so, the global investment dynamics and evolution of
the industry must provide the lessons and safeguards needed in the process of contract negotiations, and in the strengthening of legislations.

3.2 Strategic Choices and the Political Economy of Industry Policies and Practices

Policy making is not solely a technical matter. It is partly political since it is a strategic, social, and geopolitical decision-making process. For these reasons, hard choices with long-term consequences have to be made by policy makers. Since these choices are critical to the country’s economy as well as the welfare of its people, decisions have to be informed by an articulation of various competing interests (Humphreys et al. 2007; UNCTAD 2009; Collier and Venables 2011). As noted by Karl (2007), “the resource curse cannot be attributed to oil itself ... but rather to types of arrangements that have developed around its exploitation” – in the words of The Economist magazine, a “poverty of policy” (The Economist, 2005).

Consequently, some of those choices may be popular and others not; some may have medium- and long-term consequences, while others are merely short-term. Some policy choices might be narrow in outlook while others could be informed by broader perspectives. Some choices might be influenced by domestic concerns while others could be largely a reflection of external pressures. As the English say “the test of the pudding is in the eating”, the relevance of a policy is largely assessed by its endurance and long-term impact through implementation. For example, Wangwe and Mbilinyi (2006) showed that in many ways the Tanzanian National Mineral Policy of 1997 was fully cognizant of the importance of integrating the mining sector into the national economy through local content, capacity development, and value addition, but its operationalization was constrained by conflicting legislations and weak coordination.

The Netherlands and Norway are illustrative examples of strategic policy choices. The discovery of the Groningen gas fields (Netherlands) occurred in 1959, when natural gas had limited, if any, commercial value. It was the vision of the Dutch Minister for Economic Development, Nota de Pous, expressed in his ground-breaking 1962 speech, which gave direction to and articulated the country’s wishes for the long-term use of natural gas for domestic purposes (de Pous 1962). That vision continues to be relevant in the Netherlands to this day, since natural gas has proved to be a more economically and environmentally efficient energy source in the Netherlands. Natural gas has also placed the Netherlands in a strategic gas business position, and has helped it to develop other associated industries that compete globally. On the other hand, Norway discovered oil at Ekofisk in 1969 and commenced production in June 1971. Unlike the Netherlands, Norway did not opt or need to use oil for domestic purposes because it already had an abundant supply of hydropower. From the outset, though, the Ten Commandments for the management of the oil sector were outlined (Appendix 1). Norway has since become a global best example of a country with massive revenue flows managed through a huge state petroleum fund (currently named the Government Pension Fund Global) (Thurber 2011; Leskinen 2012). This decision helped Norway to avert the Dutch disease problem associated with large resource revenues, and has also put the country on a path to sustain the development expenditure needs of future generations for a foreseeable time period even after depletion of the resources. The Netherlands and Norway are shining examples of good global policy making, with long-term benefits in the hydrocarbons sector.
In Tanzania, the draft Natural Gas Policy in general, and Article 2.4 in particular, emphasizes national interests above all other competing interests, and must be understood as such. The same spirit is inherent in the Petroleum Exploration and Production Act of 1980. Whether the foresight anchored in the policy withstands the power, pressure, and influences of its detractors, and ultimately passes the test of time, will be judged only by passage of time.

In complete contrast, the Minerals Policies (1997 and 2008) did not contain an explicit national interest protection provision. Here history should provide some guidance (Campbell 2003; Kaushal 2009). It may be recalled that at some point, mining was lauded as the engine of growth and the saviour of the Tanzanian economy. For example, in a 1997 publication the Ministry of Energy and Minerals was so optimistic as to proclaim that mining should make a net contribution in excess of 10% of GDP. In a subsequent related publication, the Minerals Policy 2008, that vision statement was dropped.

From Campbell’s analysis of three generations of mining codes, the prescription by the World Bank Group’s Extractive Industries Review to Tanzania and other countries was doomed to fail from the start. Its emphasis was too narrow and restrictive, as it focused on only one determinant – the quality of governance – at the expense of other determining factors (Campbell 2003). In other words, the Minerals Policies (1997 and 2008) were designed largely to benefit investors, and were less friendly to the broader interests of the host country and its development objectives (Campbell 2010). Other views, such as that of Wangwe and Mbilinyi (2006), observe that mining policy provisions stipulated requirements for the local sourcing of goods and services, local labour employment, and technology transfer. The major problem, they observed, was implementation snags, citing as an example the tax regime that granted tax exceptions on imported goods but not on those that were locally produced, making the latter uncompetitive. However, Campbell (2003) observes that the Tanzania Mining Act 1998, which governed the industry during a significant investment period, did not require applicants for mining licenses to present a plan for the local procurement of goods and services. Other limiting provisions included those that constrained the state’s ability to introduce new policy changes aimed at advancing certain development goals.

It is no wonder, therefore, that endless questions continue to be asked about mining. For example, why did Tanzanian policymakers in 1997 ignore, or fail to take account of, the remarkably successful Botswana model of partnership and value addition (Sarraf and Jiwanji 2001; Transparency International 2005; Martin 2008)? What considerations informed the Minerals Policy 1997 and accompanying legislation 1998 (Campbell 2003)? How did the country’s economy perform and the general public respond to the policy (United Republic of Tanzania 2008; Sharrife 2009; Magai and Marquez-Velazquez 2011)? What led to policy reviews and the Mineral Policy 2008? Why is the Natural Gas Policy materially different from its predecessors?

As Collier and Venables observed, in effect the provisions of the Natural Gas Policy, and its successful implementation, will invariably and inevitably influence, if not determine, the kinds and magnitude of benefits that accrue to Tanzania as a country and its people in the next twenty years and more (Collier and Venables 2011). This entails that most critical policy elements are translated into legislation, and instruments are put in place to ensure that they are operationalized. Two critical elements are highlighted here. The first is local content. Local content is sometimes translated as direct participation in upstream activities. We argue that this is just one part, which is influenced...
largely by the technical and financial capacity of the state and its private sector. In many countries, NOCs play a significant role and participate in upstream activities on behalf of their people. The process of building the capacity of NOCs has been gradual, with heavy state involvement in providing funding and legislative protection. In other countries, such as Venezuela and Saudi Arabia, the nationalization of IOC’s assets has been common. In Malaysia PETRONAS was developed through equity purchase from IOCs and strong ring-fencing by the Prime Minister to shield it from populist pressure (Collier and Venables 2011).

Local content goes far beyond direct participation in upstream activities. It encompasses the development of local skills, the transfer of technology, the use of local materials and supplies for industry, and the employment of a local skilled and semi-skilled workforce. It also includes the use of hydrocarbons in the domestic economy through value additions midstream and downstream; a contribution to lowering investment costs in other sectors through infrastructure development; the supply of cheap feedstock to other industries with significant employment and growth multipliers, such as fertilizers and petrochemicals; and direct and indirect employment within the industry’s value chain. It is worth noting that the outsourcing of the supply of goods and services is a very common practice in the industry, and indirect employment and value addition accounts for a large proportion of total employment. The supply of local goods and services can therefore create a more dramatic multiplier effect in local economic development than direct participation as an operator or exploration license holder.

In practice, there are many known national examples where local content successfully yields the benefits of economic integration and transformation, strategic positioning in the global petroleum industry, and even geopolitical advantages. There are also examples of those with limited success. A few examples are discussed here, namely Norway, Malaysia, China, and Nigeria. Norway is widely held as a good example of best practice in local content. The Norwegian government initiated and supported mechanisms to develop the industry’s institutional and technical capacity, leveraging its existing capabilities in shipbuilding and related industrial capacity. This was made possible through the use of training institutions and on-the-job training; joint participation in upstream activities with IOCs; and the full participation of Statoil as a commercial entity in the entire value chain. The government also urged Statoil and its partner IOCs to award service and supply contracts to Norwegian bidders when they were competitive in terms of price, quality and delivery time. They were also encouraged to establish R&D partnerships and programmes with Norwegian institutions to enhance technology transfers, and these were turned into crucial parts of the criteria for the Norwegian Petroleum Directorate and the ministry responsible for evaluating exploration licensing bids.

Malaysia is another example of success through PETRONAS, an NOC with one hundred subsidiaries and forty joint ventures with IOCs. PETRONAS has demonstrated a strong ability to strike a balance between being a state-owned entity and a full-fledged commercial company. It created upstream capabilities through partnerships and gradually ventured into midstream and downstream activities that significantly add value to the oil and gas resources – a strategy of integration. It also entered into partnerships with IOCs in establishing petrochemical complexes that have created avenues for industrial development, diversification, and economic transformation in Malaysia. Capacity development efforts were a crucial part of this integrated strategy, demonstrated by the establishment of training institutions by PETRONAS, including a petroleum university.
China has also accelerated its local content development through an integrated industry approach. In the upstream, for example, China National Offshore Oil Corporation (CNOOC) is one of the three NOCs operating along the entire value chain. It was established in 1982, and in 2001 it was listed on the stock exchange, having succeeded in developing its internal capability and booking oil reserves. Its contractual approach in the PSAs is to switch roles with the IOC as operators after ten years. Midstream and downstream, it operates in partnership with IOCs and provincial governments along the chain to deepen its capability and integrate local economies while remaining competitive. In Guangdong province, for instance, CNOOC operates a modern petrochemical complex, a joint venture between Royal Dutch Shell (50%) and CNOOC Petrochemicals Investment Company Limited (50%). The latter company is owned by CNOOC and Guangdong Guangye Investment Group Company Limited, a provincial state-owned company, in the proportion of 90% and 10% respectively.

Within Africa, Nigeria has recently attempted to localize the gains from its oil and gas industry after many years of imbalanced economic growth. As Mwakali and Byaruhanga (2011) note, Nigeria did not escape from a situation where oil discovery corresponded not only to dependence on oil revenues for its socio-economic development, but also to significant oil revenue leakages because of red tape and corruption, poor planning, and incompetence. In 2010 the Nigerian government enacted the Nigeria Oil and Gas Industry Content Development Act 2010, aimed at reducing capital flight, promoting local employment, and promoting technical capacity. Under this act, original equipment manufacturers are required to assemble equipment in partnership with local manufacturers, and to employ young graduates as part of the assessment of bids for exploration. While one year may have been too short a time to make a full assessment of the act’s impact, Mwakali and Byaruhanga (2011) observe that soon after this legislation, supply contracts were awarded to shell companies, and inflation of costs, increasing project cycles, and decelerating growth in the sector also featured. Likewise, collusion between state operatives and politicians led to poor environmental management, poor technology, and significant revenue leakage. This experience reinforces the importance of the political economy, good institutions of governance, and consistent monitoring to translate good policies and legislations into good outcomes.

In general, there are other good examples of prudent natural resource management and transformative local content, such as Chile with its copper wealth and Botswana with its diamond wealth. For Tanzania and countries like it, therefore, challenges remain in relation to technology gaps, limited skills, and the divide between national and commercial interests. Technology and skills gaps are crucial barriers to address, because only a competitive supplier base can serve to attract investment into the sector, especially if it is mandated under local content legislations. This divide is particularly challenging when dealing with IOCs with financial muscle and knowledge, which tend to influence their bargaining strength. While governments on the one hand want an increased take or share of revenues, job creation, and a diversified economy with sustainable growth, on the other hand IOCs want to maximize oil reserves and production, profits, supply chain efficiency, and compliance to local content requirements that are cost effective. There must be learning and re-learning on a continuous basis by all industry stakeholders, ranging from political leaders and industry technocrats to suppliers and academics.

The second issue is revenue management. The Natural Gas Policy proposes prudent revenue management owing to a history of disastrous effects of massive revenue flows generated from oil
and gas. The Netherlands experienced what is now referred to as Dutch disease soon after their discovery of massive gas reserves in Groningen. A massive inflow of revenue began to displace sources from other sectors whose productivity declined, as social spending also increased and currency appreciated. The result was a loss of competitiveness in other important sectors, a disrupted fiscal balance, and populist pressure for more social spending. Norway was able to avoid this problem following its oil discovery in 1972 by creating a special fund, mentioned earlier and known today as the Pension Fund. Under this system all revenues accrue to this fund, which is then invested in foreign financial assets. Only up to 4% of the income from the fund’s investment flows to the government budget to cover fiscal deficit. This is important for Tanzania, although its economic settings are different. What is needed is the prudent use of these funds in the investments needed to raise the productive capacity of all sectors of the economy, and to provide for future generations since hydrocarbon resources are non-renewable. It is a strategic decision that must consider the balance between revenue generation through LNG exports on one hand, and domestic utilization for industrial development and its multiplier effect in the long run on the other. For example, Nigeria has recently established an Excess Crude Oil Account which is meant to finance three components, namely strategic infrastructure, fiscal stabilization, and a sovereign wealth fund for intergenerational purposes. However, it is too early to assess its practical implications.

3.3 The Role of the State in Managing and Balancing Diverse Interests in Society

Society, narrow and wide, is by its very nature constituted by many players with different and sometimes diametrically opposed interests. How do different interest groups define and protect their diverse interests? For the purposes of this paper, one question to ask is: who protects national interests, and how? Walter Rodney (1972) found and set out a formula for identifying interest groups. Protecting chosen interests is not easy. Actors encounter and engage with opposing forces, some small but many others larger than themselves. Therefore, stakeholders who attempt to protect national interests have to be aware of existing polarities and diverse interests, which must be managed rather than being ruled out as irrelevant.

Since the Natural Gas Policy provides space for the participation of the private sector, CSOs, research and academia, and media, the state must develop mechanisms to ensure that the interests of all these stakeholders are met to the extent this is feasible and in balance with industry best practice. Transparency, accountability, and integrity, also articulated as important policy objectives, are fundamental pillars of the state’s credibility and the trust needed for a balanced acceptance by stakeholders with diverse needs.

While the protection of national interests was pursued by a small band of activists known in Kiswahili as *Wanaharakati*, and a rare species of critical scholars (Picciotto 1992; Duruigbo 2001; Braithwaite 2004; Christensen and Kapoor 2004; Stiglitz 2007; Sikka 2010, to mention only a few), new interests have emerged, bringing to the surface global institutions such as the Extractive Industries Transparency Initiative, the Revenue Watch Institute, the Tax Justice Network, and others that promote transparency, equity, and justice in the use of natural resources. These cross-border initiatives are not expected to substitute, but rather to complement the state’s efforts. They serve to raise awareness of areas that need attention and to support the voices against practices that distort
the economic base in resource-rich developing countries. Practices such as aggressive tax planning and pressuring for distortionary incentive regimes by multinational corporations must be challenged, and the state must strengthen its capacity to negotiate and to audit complex transactions and financial reporting.

As economic and social hardship appears to increase in the global North (OECD 2011), popular grievances are multiplying and public discontent is on the rise. As a result, larger sections of the public, both nationally and globally, are becoming more and more involved and are demanding a variety of global justice and fairness measures. Global justice movements have grown rapidly (Schrage 2003; Bendell 2004; Albareda 2008; Broecker 2008).

The Tax Justice Network has found a prominent ally in David Cameron, the Prime Minister of Great Britain. For example, Prime Minister Cameron has called for global standards on corporate tax transparency, which echoes what the network has been saying since its inception ten years ago. Whereas previous transparency initiatives had a narrow focus, largely on the transparency of developing countries, tax transparency seems to raise questions and demand answers from and accountability of transnational corporations. Prime Minister Cameron has only recently understood and appreciated the negative long-term economic and social consequences of aggressive tax planning and avoidance by TNCs. The activities of the likes of Starbucks, Amazon, and Google in the UK (National Audit Office – UK 2007; Christian Aid 2009; House of Commons 2013), mining and mobile phone service providers in Tanzania, copper mining companies in Zambia, and oil and gas investors globally, are symptomatic and illustrative of the malaise long known and articulated by activists in respect of TNCs operating in developing countries (Campos and Pradhan 2007; ActionAid 2010).

Those TNCs that choose unethical practices to buoy their profits do not work alone. They operate in collaboration with big banks – for example, Barclays Bank, which was only recently forced to close down its tax avoidance unit, and accounting firms (McLaren 2004; Sikka and Hampton 2004; Sikka and Willmott 2010; Mitchell and Sikka 2011). The significance of Prime Minister Cameron’s intervention, therefore, may not be in its substance but in its timing. It is partly connected to post-2008 global economic and financial crises and their ramifications. The addition of Cameron’s powerful and influential voice, and those of the G8’s leaders, will only become clearer if the global transparency standards proposed are adopted and become operational.

The role of the state, therefore, cannot be understated. In addition to monitoring and regulating the industry and nurturing its NOC to enhance government take, it has to manage the diverse interests of different stakeholders. This has proved to be true not only in the South but also in the North. The initiatives of global institutions and powerful nations in the North cannot substitute, but may complement state efforts.
The totality of these propositions, along with the issues around them, points to the intricacy of the relationships between markets and states, which must be understood in order to ensure that the aspirations of the Natural Gas Policy are realized. The huge investment dynamics and new risks, changing geopolitics and increasing resource nationalism, domestic initial conditions, and increased consciousness of national interests all demand a more proactive engagement of the state. **Article 2.4** of the draft Natural Gas Policy is a home-grown tool and a starting point for harnessing the long-term benefits of Tanzania’s gas economy. While the policy outlines statements that provide fundamental pillars for a successful transformation of the economy using natural gas resources, its realization depends very much on strategic choices and the robustness of the tools for policy implementation. Important lessons must be drawn from success stories customized to fit the country’s initial conditions, as well as its long-term strategic considerations. A proactive engagement of the state in managing diverse stakeholder interests is also a crucial pillar for effective industry development and its potential to contribute to inclusive growth and socio-economic transformation, as set out in the National Development Vision 2025.
References


bargaining in a globalised economy”. International Business Conference, Guadalajara, Mexico, 9 January (on file with author).


Appendix 1: Norway: The Ten oil Commandments

1. National supervision and control must be ensured for all operations on the Norwegian Continental Shelf (NCS).

2. Petroleum discoveries must be exploited in a way which makes Norway as independent as possible of others for its supplies of crude oil.

3. New industry will be developed on the basis of petroleum.

4. The development of an oil industry must take necessary account of existing industrial activities and the protection of nature and the environment.

5. Flaring of exploitable gas on the NCS must not be accepted except during brief periods of testing.

6. Petroleum from the NCS must as a general rule be landed in Norway, except in those cases where socio-political considerations dictate a different solution.

7. The state must become involved at all appropriate levels and contribute to a coordination of Norwegian interests in Norway’s petroleum industry as well as the creation of an integrated oil community which sets its sights both nationally and internationally.

8. A state oil company will be established which can look after the government’s commercial interests and pursue appropriate collaboration with domestic and foreign oil interests.

9. A pattern of activities must be selected north of the 62nd parallel which reflects the special socio-political conditions prevailing in that part of the country.

10. Large Norwegian petroleum discoveries could present new tasks for Norway’s foreign policy.
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