

Original article

The governance of the petroleum sector in Tanzania: Institutional arrangements and the role of the National Oil Company[☆]

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ARTICLE INFO

Article history:

Received 12 September 2016

Received in revised form 17 December 2016

Accepted 17 December 2016

Available online 4 January 2017

Keywords:

Tanzania development corporation
 Petroleum sector governance institutions
 International oil companies
 Petroleum regulatory authority
 Commercial role
 Local content

ABSTRACT

This paper provides evidence of how Tanzania, a developing country, is attempting to develop institutions for the governance of the petroleum sector. The paper focuses on the role of the National Oil Company (NOC) and places it in the broader governance reforms of the country's petroleum sector. It contributes to the current debates on the roles of NOCs. It examines the developing institutional context and the evolution of Tanzania's national oil company, highlighting the critical moments for this institution. The paper is based on data collected through the use of interviews and documentary analysis. The findings show that the role of the corporation has evolved overtime from license monitoring, importation of oil and general promotion of petroleum sector in line with the operational country context. The recently enacted legislations attempt to steer the corporation toward implementing two roles: the commercial and socio-economic development. Effective execution of both roles is faced with challenges. The ongoing transformation of the national oil company has yet to result in a clear focus for the corporation within the broader commercial role and execution of the socio-economic development role runs the risk of being sidelined due to existing limitations.

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1. Introduction

The shift in the balance of control over petroleum resources from the International Oil Companies (IOCs) to National Oil Companies (NOCs) has ignited the debate among policy-makers and researchers on the role of the latter institutions (Victor et al., 2012). As IOCs continue to experience declining control of the petroleum resources, the situation is different for NOCs: they now wield significant influence over oil and gas resources as custodians and developers of such resources (Al-Fattah, 2014; Stevens, 2008a). Petroleum Intelligence Weekly points out that 18 of the world's top 25 gas producing firms are NOCs, controlling 75% of the oil production and holding more than 90% of the world's oil reserves (World Bank, 2011; Leis et al., 2012). Moreover, nearly 60% of the world's undiscovered reserves are reportedly located in countries where NOCs have privileged access. In the 1970s, IOCs controlled 90% of the resources but controlled only 10% of such resources by

2012 (Al-Fattah, 2014), hence the shift in the balance of control over petroleum resources. This shift has generated concerns among policy-makers for fear that the supply of gas/petroleum may become uncertain (Stevens, 2008b). This is in turn linked to institutional arrangements of NOCs, including the ownership structures usually dominated by governments, access to capital, and the incentive structures, which are prone to political manipulation, all of which may constrain the effectiveness and efficiency of NOCs to develop petroleum resources to ensure a steady supply (Victor et al., 2012).

Although NOCs have been around since 1908 (Stevens, 2008) and Tanzania has had her own, the Tanzania Petroleum Development Corporation (TPDC) since 1969 (URT, 1969), the recent discoveries of commercial quantities of natural gas in the country and the role that TPDC could play in the development of these resources (URT, 2013) have led to renewed interest in the TPDC. The gas discoveries had reached 57.25 trillion cubic feet by May 2016 (URT, 2016) with more exploration still in progress. In consequence, Tanzania is on the international radar as a potential significant producer and supplier of natural gas (KPMG, 2014). This development has wetted the appetite of the Tanzanian government to engage in major reforms of the institutions responsible for the governance and development of its petroleum resources.

[☆] I am grateful to the four anonymous reviewers, Silas Olang from NRG and Prof. Hein Roelfsema from the Utrecht University School of Economics for their insightful comments and suggestions which helped to improve the paper.

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The enactment of three pieces of legislations—the Petroleum Act, the Tanzania Extractive Industry (Transparency and Accountability) Act and the Oil and Gas Revenue Management Fund Act in 2015—spell out how petroleum resources are envisaged to be managed and accounted for as well as how the resultant proceeds are to be utilised in the country. The purpose of this paper, therefore, is to address the following question: What are the emerging institutional arrangements in the country's petroleum sector and what is the role of the national oil company? The remainder of the paper is organised as follows: the origin and roles of NOCs in the world, the governance of the petroleum sector in Tanzania, the role of the TPDC, discussions and conclusions.

2. Data and methods

This paper uses qualitative data, originally collected for developing background reports to inform the natural resources governance benchmarking process in Tanzania. The benchmarking exercise, which took place in 2014, was undertaken by the Tanzania government through the Uongozi Institute¹ to assess the whole chain of policy decisions and institutions in Tanzania. The international Natural Resource Charter developed by the Natural Governance Institute was adapted to the Tanzanian context and applied as a framework for guiding the assessment. The adaptation of the charter entailed asking specific questions related to TPDC. In this regard, the benchmarking process consisted of two teams: a research team, which conducted research in line with the adapted framework and an expert panel consisting of twenty members. The expert panel validated the research findings turned up by the research team.

Data were collected through interviews with ten TPDC senior officials including the chairman of the board of directors. Other interviewees were five officials from government and three representatives of civil society organisations and a member of the donor community. These respondents were selected for the interview because of their experience and profound knowledge of TPDC and petroleum sector in Tanzania generally. A semi-structured interview tool was used for the interviews. Data were also obtained from reports and other publicly available materials such as laws, annual reports and data from organisational online platforms. Following the enactment of the Petroleum Act in 2015, the study carried out additional interviews in 2016 with five officials from the government and TPDC to discern the influence of the Petroleum Act on the TPDC. Data analysis and reporting have been achieved through description and reflection. This is a normal approach to qualitative research (Eisenhardt, 1989).

3. Origin and roles of NOCs

NOCs have traditionally been defined as institutions that operate in the petroleum sector in form of companies and are owned and controlled by governments with a stake of more than 50% of both economic interest and voting power whereas IOCs are privately-owned firms, which operate on the international scale (Linde, 2000; Stevens, 2004 cited by World Bank, 2011). This distinction is increasingly seen as inadequate because some NOCs are operate across national boundaries and have the same features as IOCs except for ownership, which tends to be fully private. For the purpose of this paper, we shall refer to oil companies that operate on international scale as International Oil Companies (IOCs) regardless of ownership. In other words, NOCs may also be

treated as IOCs when they extend their operations beyond the borders of the nation-states that own them.

Generally, the literature on NOCs is vast and reveals an interesting pattern in the establishment of NOCs. The literature shows that the NOC wave occurred in the early, mid- and late twentieth century through the twenty-first century. These periods were characterised by the oil boom demand stemming from growth of the automotive industry (1900s–1940s), the rise in resource nationalism which motivated the establishment of NOCs through nationalisation (1950s–1970s) and more recently (2000s and beyond) a wave of new major discoveries of petroleum resources (World Bank, 2011; Stevens, 2008a).

Three roles of NOCs have been discussed in the literature. The first role is to correct market failure (Stevens, 2008b; Victor et al., 2012). Market failure has been related to the existence of monopoly power and asymmetric information between IOCs and governments in countries that own petroleum resources. NOCs were established to serve as mechanisms for addressing this problem and strengthening the bargaining position of national governments over the IOCs to enable effective control over the petroleum sector and achieve national sovereignty (Nore, 1980; Stevens, 2012). As Marcel (2006) observes:

‘The historical reasons for establishing national oil companies derived from states’ intention to assert national control over hydrocarbon resources which meant control over decisions on production rates, over development and sales, thus over revenue for the state. National oil companies would enable governments to maximise their take, that is, share of hydrocarbon revenues that the companies transferred to the state’ (p.38).

Along similar lines, the divergence of interest between the state and IOCs imply that the state had more interests in developing the sector beyond profit-making as opposed to private companies whose main motivation is to optimise profit in a bid to achieve shareholder value (Noreng, 1997). The argument here is that the state has more effective incentives and wherewithal to deal with domestic security of supply, health and safety, conservation of oil resources, training and employment of local people and generation of adequate returns (Bentham, 1988 cited in Stevens, 2008b) than private companies. The case of Sonangol, the Angolan NOC, is usually cited as an example of NOCs that have performed well in maximising the share of petroleum revenues accruing to the Angolan state (Heller, 2012).

The second role of NOCs is to act as a catalyst for broader economic development of the rest of the economy. This orientation stems from the desires of the government to use the petroleum sector to foster economic development through technology transfer and local content policies. In this regard, Pirog (2007) contends:

‘National oil companies are also used by their governments as tools in the overall process of economic development. . . . the industry may serve as a conduit for technology transfers to the larger economy. Local content rules may be imposed to ensure the development of ancillary service businesses to spread development dollars’ (p. 7)

The promotion of local content requires increasing linkages between the oil sector and other sectors in the economy (Auty, 1990; Fee, 1988 in Stevens, 2008b) Since the private sector tends to play a limited role, the NOC see to offer appropriate means to support the development of these linkages. The maximisation of social welfare by promoting non-petroleum economic growth and reduction of poverty involves pursuing and maximising financial and productive linkages to and from the hydrocarbon sector (Victor et al., 2012). ARAMCO of Saudi Arabia exemplifies NOC that have

¹ I acknowledge the permission of Uongozi Institute to use part of this data in the development of this paper.

achieved successfully local content through linkages with the rest of the economy as well as through the creation of industrial networks, provisions of funds and educational opportunities to local Arabians (Stevens, 2012). Third, NOCs implement social welfare programmes of the government including providing oil subsidies, implementing regulatory activities such as monitoring licences for exploration and production of petroleum resources as well as carrying out development projects on behalf of government (Pirog, 2007; Heller et al., 2014). In principle, this role is an extension of the second.

An assessment of the developments in the hydrocarbon sector shows that many countries tend to ensure that these three key roles ensure maximum benefit accrue from the petroleum sector: policy and supervision, regulatory activities and commercial activities (Thurber et al., 2011). These roles may be performed by separate institutions or be combined in one institution (Victor et al., 2012; Heller, 2012). However, the success of a NOC in its role depends on the following factors: the institutional arrangements within the sector, clarity of the institutional roles, and the effective discharge of institutional roles (Lahn et al., 2007; ESMAP, 2007; Stevens, 2012). This issue is further discussed in the context of Tanzania.

4. Governance of the petroleum sector in Tanzania

Global efforts towards creating an enabling environment that allow natural resources to be exploited to realise socio-economic benefits for a country and avoid the resource curse phenomenon are on the rise. These initiatives include the Natural Resources Charter promoted by Natural Resource Governance Institute (NGRI), Extractive Industry Transparency Initiatives, OECD Due Diligence Guidelines and ICMM practice guidelines (Anayati, 2012). They support a resource nationalistic approach, a concept that generally refers to the desire of the people of resource-rich countries to derive more economic benefits from their natural resources. Resource nationalism refers to the tendency for states to assert economic and political control over natural resources found within their sovereign territory (SAIMM, 2012; Childs, 2016). Institutions play critical roles in realising resource nationalism. Robinson et al. (2003) argue that Botswana has been successful in avoiding the infamous resource curse because of its institutional arrangements. The work of Lahn et al. (2007) further reinforces this claim. However, using the case of Uganda, and inspired by the arguments of Poteete that “Behind policies, institutions, and state building lie political coalitions” (2009: 455–456), Hickey et al. (2015) posit that institutions are a product of interactions between political actors operating within a particular socio-political setting. Notwithstanding the importance of the deeper politics and the power relations among political coalitions, I argue that understanding these institutions and how they are set to operate as mechanisms that will influence outcomes constitute an integral part of this broader debate. In this section, I provide insights on the emerging institutions for the governance of the petroleum sector in Tanzania.

As already noted, efforts aimed at constructing institutions for the governance of the petroleum sector governance in Tanzania augur with the broader initiative to avert a natural resource curse, which tends to attack resource rich but governance poor states. This curse ‘eats away at a country’s economic and political institutions or prevents them from fully developing in the first place, and may be exacerbated by the presence of despotic leaders, corrupt governments, and the rent-seeking behaviour of political elites’ (Weszkalnys, 2014, p. 212). Prudence and restraint, in the form of institutions, regulations, and corporate and public sector ethics, are advocated as the remedy for the oil curse (Weszkalnys, 2014, p. 215). In this sense, institutions constitute both the problem

and the solution. Weak institutions beget resources curse and strong institutions avert it.

Three recently enacted laws—the Petroleum Act, the Tanzania Extractive Industry (Transparency and Accountability) Act and the Oil and Gas Revenue Management Fund Act—define the institutional arrangement for the governance of petroleum sector in Tanzania. In particular, the Petroleum Act has both created new institutions and defined their roles in addition to assigning the existing institutions roles in the sector encompassing policy setting, regulation and commercial activities (URT, 2015a). This law is seen as ‘an Act to provide for regulation of upstream, midstream and downstream petroleum activities, establishment of the Petroleum Upstream Regulatory Authority, to provide for the National Oil Company, to secure the accountability of petroleum entities and to provide for other related matters’ (URT, 2015a, p.14). It replaces the earlier Petroleum Exploration and Development Act of 1980 and in that it separates the functions of policy, regulation and commerce into distinct domains with each having a separate institution responsible for it. This separation of functions between institutions is major departure from the previous regime when roles were shared between the Ministry of Energy and Minerals and the TPDC. Also the Minister for petroleum having a final say on most key decisions. The new law now makes cabinet the centre of powers as discussed below. In addition, the Petroleum Act of 2015 has key fiscal provisions that address issues related to taxes, annual fees (acreage rental, training and research fees), royalty, profit share, signature and production bonuses, ring fencing of operations, loans (and associated interests subject to regulation by a government agency) and late payments in which case a penalty of two percent per day of default is prescribed (TEITI, 2015).

The Tanzania Extractive Industry (Transparency and Accountability) Act of 2015 (or TEITA Act, 2015), on the other hand, constitutes ‘An Act to provide for [the] establishment of the Extractive Industries (Transparency and Accountability) Committee for purposes of ensuring transparency and accountability in extractive industries and to provide for other related matters’ (URT, 2015b, p. 5). This law supports at the country level, the global movement for improved governance of natural resources through transparency: Extractive Industries Transparency Initiative (EITI) aimed at promoting transparency in the natural resource sector by bringing national governments, companies, and civil society organisations to one table with open books. This law marks a significant departure from the Petroleum Exploration and Production Act of 1980, which had clauses that limited disclosure of information. This Act stipulated conditions under which disclosure of information could be made (URT, 1980, s.10[1–5]), an aspect that has been removed under the Tanzania Extractive Industry Transparency and Accountability Act of 2015.

In the same vein, the Oil and Gas Revenue Management Act governs the use of resources obtained from the petroleum sector and ‘provide[s] for the establishment and management of the Oil and Gas Fund’ ‘to provide for the framework for fiscal rules and management of oil and gas revenues and to provide for other related matters’ (URT, 2015c, p. 4). These three legislations collectively coalesce into a maze of institutions for the sector. Table 1 provides a list of the institutions responsible for the governance and management of the petroleum sector in Tanzania in accordance with the three legislations:

As Table 1 illustrates, the Petroleum Act provides for the core institutions involved in the governance of the petroleum sector. It vests the overall oversight and direction in the hands of the cabinet (URT, 2015a). The direct mention of the cabinet in this law is unusual and departs from many other laws including the Finance Act and the Public Corporations Act in which the roles of the cabinet are implicit. The Act also establishes the oil and gas advisory bureau in the office of the president to advise the cabinet.

Table 1

Key governance Institutions in the Petroleum sector.

Institution	Institutional governance mandate
Petroleum Act 2015	
Cabinet	S. 4 (3) The strategic oversight and directions over oil and gas economy shall vest into the Cabinet.
O& Gas Advisory Bureau	S.7. There shall be constituted within the Office of the President the Oil and Gas Advisory Bureau which shall advise the Cabinet on strategic matters relating to oil and gas economy.
Ministry of Energy and Minerals	s.5 (1) The Minister shall provide supervisory and functions in petroleum industry . . . s. 5 (3) (a) in respect of any strategic decisions on strategic petroleum investments, seek guidance and directives of the Cabinet; (b) consult other relevant sectoral Ministries if a duty to be discharged is related to or potentially affect the functions of such other ministries.
PURA	s. (6). The Commissioner for Petroleum Affairs shall be the advisor of the Minister on policy, plans and regulations as well as the day to day administrative matters in the oil and gas subsector. S.12 (1) There shall be the Petroleum Upstream Regulatory Authority or in its acronym PURA which shall regulate and monitor the petroleum upstream sub sector.
EWURA	s.30(1) The Energy and Water Utilities Regulatory Authority established under the Energy and Water Utilities Regulatory Authority Act, in this Act invariably referred to as "EWURA", shall exercise regulatory powers in respect to midstream and downstream petroleum and natural gas activities under this Act.
TPDC	s.8 (1) Tanzania Petroleum Development Corporation shall be the National Oil Company and shall, in that respect, undertake Tanzania's commercial aspects of petroleum in the upstream, midstream and downstream operations and participating interests of the Government in the petroleum and natural gas agreements.
Tanzania Extractive Industry (Transparency and Accountability) Act, 2015	
TEI Committee	s.4 (1) There shall be a Committee to be known as the Tanzania Extractive Industries (Transparency and Accountability) Committee. (2) The Committee shall be an independent Government entity, which shall be an oversight body for promoting and enhancing transparency and accountability in the extractive industry.
Oil and Gas Revenue Management Act, 2015	
Oil and Gas Fund	s.8.(1) There shall be the Oil and Gas Fund. (2) The Fund shall consist of the Revenue Holding Account and the Revenue Saving Account. (3) The objectives of the Fund shall be to ensure that: (a) fiscal and macroeconomic stability is maintained; (b) the financing of investment in oil and gas is guaranteed; (c) social and economic development is enhanced; and (d) resources for future generations is safeguarded.

Yet, the role of the advisory bureau remains unclear as advice to the cabinet flows from various corners including the ministry responsible and the TPDC (discussed below). Embedded in this setup is the potential for institutional conflicts, which can occur when more than institution is responsible for the same function. Over time, how the bureau operates in this regard will become apparent. Under the Petroleum Act, the Cabinet constitutes the main and highest decision-making organ on issues pertaining to the petroleum sector rather than the minister as it used to be under the repealed 1980 Act.

This shift reflects the sensitivity and importance attached to the sector as keeping the decision-making powers in the hands of a single individual tend to fraught with risk. Moreover, the law allocates specific functions to three seemingly autonomous but related institutions: the Ministry of Energy and Minerals (MEM), the Petroleum Upstream Regulatory Authority (PURA), and the Electricity, Water and Utilities Regulatory Authority (EWURA). The law confers TPDC with the status of NOC. Being a NOC appears to make a difference for the TPDC. One of the officials interviewed observed:

'One major implication of the NOC status for TPD is that TPDC will start to be regulated the same way other oil companies (including IOCs) are regulated. Having been declared a NOC, TPDC expects that it will cease to be treated as a department within a government ministry. Instead, it will be allowed to operate more like a company with options to raise funds from the capital markets by listing or borrowing. This is an important attitudinal issue [. . .] because TPDC has [. . .] to make decisions in a flexible manner as it competes with other companies in the sector. We expect that the board will have power to make critical decisions and be [held] accountable for them and to be mired in the ministerial bureaucracy for every little decision'.

The ministry is responsible for policy-making and enforcement including preparing plans related to the development oil and gas. It is also responsible for granting, renewing or suspending petroleum exploration and development licences on strength of the advice from PURA, the regulatory body. The

minister responsible for the petroleum sector is empowered to safeguard the associated checks and balances. In this regard, the law requires the minister to seek the guidance and directives of the cabinet on strategic decisions regarding the strategic petroleum investments, as well as consult other relevant sectoral ministries where decisions have effect on the mandates of those ministries. This step is a significant one as it implies an attempt to compel the minister responsible for petroleum to seek views from other ministries that may be affected by his/her ministry's decisions and encourage the integration of sectoral views into the decisions of the petroleum ministry. The implication is that pressure could be exerted on the minister for petroleum if decisions are made without the meaningful involvement of the sectors affected and, hence, creating room for influence by other sectors.

In the same vein, the law requires the commissioner for oil and gas to advise the minister on matters related to petroleum. Surprisingly, the commissioner for oil and gas is mentioned in the legislation whereas the permanent secretary who is the highest bureaucrat in the ministerial chain of command and the first top adviser to the minister is overlooked. This oversight appears to have been carried over from the repealed law which makes the commissioner the top adviser to the minister on petroleum sector affairs and was actually a head of state appointee (URT, 1980, s.8 (1)). When it comes to the national oil company, the minister has power to issue policy directions to the company to boost performance in accordance with the Petroleum Act (URT, 2015a, s.11). However, the minister needs the guidance of the Cabinet considering the sensitive nature of the matter. Fig. 1 depicts the institutional arrangements in the petroleum sector based on the roles and relationships articulated in the three legislations.

The law separates the regulatory function in the upstream, midstream and downstream parts of the petroleum sector. PURA, a newly established institution under the Petroleum Act, regulates the upstream activities including the monitoring of licences and releasing of information to the public. However, release of information to the public requires receipt of instruction from the minister responsible for energy and minerals (). PURA has

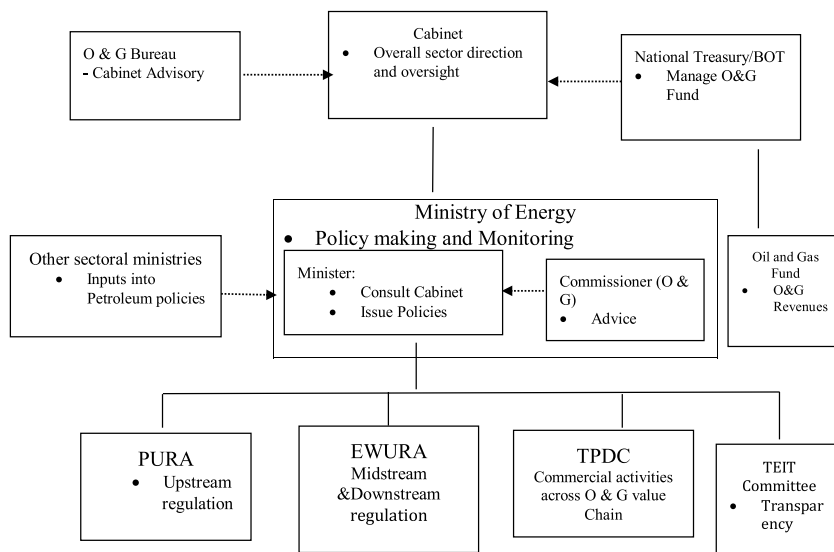


Fig. 1. Petroleum sector institutional arrangements in Tanzania.

Key: dotted line = advise/information; full line = delegation and accountability relationship

assumed the regulatory activities that were hitherto in the hands of the TPDC. As a respondent explained:

'PURA is fast getting established. The ministerial budget for 2016/17 includes activities for PURA. They have been allocated an office and temporary staff who have been drawn from TPDC. The team is now working on key documents and soon the PURA board will be named. This suggests that the regulatory function in the sector is being accorded priority, perhaps, because it will be a crucial entity in facilitating revenue generation, an issue that is of significant interest to the current government. Since coming to power in 2015, two issues have pre-occupied the current government: fighting against corruption and increasing government revenues'.

The Electricity, Water and Utilities Regulatory Authority (EWURA), which was established in 2001 (URT, 2001)² is charged with regulating the midstream and downstream part of the sector. Transparency in the petroleum and extractive sector generally has received particular attention. As mentioned previously, the Tanzania Extractive Industry Committee has been formed under the Tanzania Extractive (Transparency and Accountability) Act of 2015 to ensure transparency thrives in the extractive sector. The Whistle-blower and Witness Protection Act, which was also passed in 2015, complements the extractive industry transparency law (TEITI, 2015).

The Oil and Gas Fund established under the Oil and Gas Revenue Fund Act guides decision-making processes in the management and use of financial resources realised from petroleum sector operations. The Fund has established two accounts: the revenue holding account and revenue savings account, which are both managed by the Bank of Tanzania (BoT), the country's central bank. It also establishes the fiscal rule for using the Fund including permitting the moving of funds in the holding account in excess of 3% of the GDP to the revenue savings account and preventing the use of the Fund to provide credit to any organisation or person

including the government or providing it as collateral, guarantee, commitment or other liabilities. This law even prescribes penalties including imprisonment for thirty years or more for misappropriation of funds and has provisions for parliamentary oversight and presidential appointment of the Fund's oversight board (TEITI, 2015). At the time of this research, regulations to operationalise these legislations were still underway.

Overall, the three legislations appear to systems for prudence and exercising of restraint by distributing decision-making powers in the government system to endanger a consultative approach to decision-making in the petroleum sector. Although the need for checks and balances, a key requirement for preventing the resource curse phenomenon, necessitated this approach, it remains to be seen how the distribution of decision-making power works in practice in a country which scores high on the cultural aspect of power distance, which suggests hierarchical power relations where people down the hierarchy do not feel the urge to challenge those higher up in the political and social echelons (Hofstede, 2016). An interviewee expressed concern thusly: 'It great to have these very nice laws. The challenge is whether these laws will be enforced effectively'. What is going on in Tanzania fits well with the notion of 'not yet' of disaster as discussed by Weszkalnys (2014), which is characterised by being busy with activities involving the preparation of charters, policies, laws and campaigns aimed at transforming potentially bad outcomes of petroleum exploitation into good ones.

In the context of the recently redefined institutional setup, it is useful to explore the role of the TPDC as one of the most key players in the sector. The TPDC is the oldest institution in the sector with significant accumulated experience, which provides critical background insights for the adopted arrangements in the sector. Annex 1 provides an extract of functions of the TPDC as defined in the establishment order of 1969 (URT, 1969). The TPDC, 2014 has been the central governance agent for developing the sector and current reforms have different implications from the perspective of the TPDC. Some reforms curtail the power of the TPDC, for example, its regulatory power whereas others seem to give the institution more autonomy than it previously had to pursue a defined focus, for example, the power to raise capital from non-state sources. I hypothesise in this paper that the TPDC performed much more effectively when it had a narrow mandate coupled with adequate financial resources than with the expanded

² EWURA was established by an Act of Parliament, Cap. 414. It is a multi-sectoral regulatory authority responsible for technical and economic regulation of electricity, natural gas, petroleum and water sectors on Mainland Tanzania. As such, EWURA's functions and responsibilities are also governed by sector legislation including the Petroleum Act, Cap. 392; Electricity Act, Cap. 131; Water Supply and Sanitation Act, Cap. 272; DAWASA Act, Cap. 273; and the Fair Competition Act, Cap. 285 [EWURA, 2012]

mandate that was not matched up with adequate financial resources.

5. Role of TPDC: evolution and challenges

5.1. Early stages: from enthusiasm to near collapse: 1969–1990

As noted earlier, Tanzania established its own NOC at a time when similar initiatives were taking place in other developing countries that had discovered petroleum resources or were in the process of doing so. The World Bank (2011) indicates that most of the NOCs were established in the 1960s and 1970s. Although oil exploration in Tanzania dates back to 1952, in the context of a liberal market economy during colonial rule, the TPDC was not established until 1969, some eight years after independence:

'The Tanzania Petroleum Development Corporation (TPDC) was established on 30th May 1969 under the Public Corporation Act of 1969 following the signing on 14th April 1969 of a long-term oil exploration agreement between the government of Tanzania and Agip s.p.a., a subsidiary of the Italian state owned corporation for the oil and natural gas sector—ENI' (TPDC, 1974, p.10).

The TPDC's actual operation started in 1973 with its first assignment being the supervision of a contract signed by the government and Agip, an activity that is usually classified as a governance rather than commercial activity. However, a year after the TPDC had begun its operations, the world experienced a severe shortage of oil as a result of the Arab world's oil embargo imposed on Western countries. The TPDC was then called upon to join the government negotiations with oil suppliers in the Arab countries to secure supplies as IOCs from the West were not allowed to access oil supplies due to the embargo. During this period, the TPDC became the official country importer of crude oil from Arab countries, which it then sold to the IOCs operating locally for distribution in the local market. This role was further strengthened when IOCs were banned from importing crude oil due to pricing practices, which were considered exploitative at the time. During the 1978–79 Tanzania-Uganda war, the TPDC was the only oil company that supplied fuel to the battlefields, as no IOC was willing to engage in that activity. IOCs wished to maintain a neutral position toward the warring sides. Thus, the thirty years (1969–1999) of TPDC's existence were split between supervising the IOC contract, importing oil for the local market and supporting the Tanzania government in the war zone.

The two positions of acting as a governmental arm for importing oil during the crisis and supporting the war efforts reveal both the convenience of a NOC to the state and the attendant risks. On the one hand, a NOC offers the state a convenient and flexible mechanism for addressing specific energy problems. On the other hand, the NOC is vulnerable to continuous redefinition of focus within its national mandate, which can be distracting and could easily stretch beyond matters that are not necessarily in line with its core mandate. In this case, importation oil in the country was part of the mandate but sending supplies to the battleground could be seen as going beyond the mandate.

5.2. Desperation and survival: 1999–2010

The onset of economic reforms in 1986 seemed to have spelled the doom of the TPDC just as it was for other state-owned enterprises in the country. Economic reforms in the form of privatisation and liberalisation of the economy caught up with the TPDC in 1999 when it was officially barred from importing oil. The petroleum market was liberalised and IOCs resumed the importation of oil. By 2006, the TPDC had its functions and strategy

redefined and oriented towards the promotion of the country's oil and gas potential rather taking part in trading activities. As a result, the TPDC was forced to scale down its operations including pruning staff from 440 in 1997 to 65 by 2006 to fit the redefined focus as well as cope with the financial shortages it started experiencing. The TPDC has largely been depending on the national budgetary allocations provided through the government. This phase continued up to 2010 when fortunes changed in favour of TPDC arising from the discovery of commercial quantities of natural gas.

The lessons from this phase are interesting. The ten years of intense work on promoting the countries' potential paid off. The TPDC carried out a number of exhibitions outside the country to showcase the country's petroleum potential. For example, in June 2000, the CEO of TPDC visited the US and held interviews with Forbes Global Magazine to promote the petroleum resources present in the country (World Investment News, 2016). This promotion was greatly assisted by the extensive collection of basic geological data, which had been carried out during the years when TPDC had financial resources accumulated from the sale of imported oil. When Agip discovered gas in 1974 at Songosongo, it claimed that the find was not adequate for commercial exploitation. However, using funds accumulated from the sale of imported oil, the TPDC carried out further geological surveys and subjected the data so collected to more sophisticated analysis, leading to the conclusion that there was adequate gas to enable commercial production which began in 2004. Similar efforts went into promotion of Mnazi bay where production began 2006. Following the start of production at these sites, TPDC now holds a 20% participating interest in ARTMU/MAUREL ET Prom, a company that is producing gas from Mnazi bay and 29% of shares in Songas, a company that owns a gas pipe, transporting gas from Songosongo and Mnazi bay production sites to the commercial city of Dar es Salaam (URT, 2015d). This is line with the states interest to participate in the petroleum sector operations.

Thus, armed with extensive data, the TPDC actively engaged with IOCs by participating in international fairs and events. It managed to entice them to undertake exploration activities in Tanzania. IOCs were encouraged by geological data from the TPDC and invested in further exploration, which culminated into the recent discovery of significant quantities of natural gas. Also, the pressure created by the declining financial support from the government challenged and motivated the TPDC management to make use of the scarce resources (that is, sell data) at their disposal to change the fortunes of the corporation. Collectively, a combination of financial resources (e.g. proceeds from sale of data) and the right incentives (pressure to defend existence) were necessary to engender a good performance of the corporation. This narrative supports the hypothesis advanced earlier to the effect that the TPDC performed much more effectively with a narrow mandate coupled with adequate financial resources than with an expanded mandate but without matching financial resources. The implication is that future performance requires a combination of the availability of resources and incentives for performance.

5.3. New lease of life: 2011 and new expectations

The discovery of commercial quantities of gas has breathed new life into the TPDC. This new life has in turn motivated actions towards re-energising the organisation through a transformation process to enable the pursuance of the commercial role. This involved adoption of a new organisational structure and strengthening the staffing position through new recruitment and training drive. Consequently, a new structure has emerged with seven directorates and three units (TPDC, 2014). The directorates are (1) upstream operations, (2) downstream operations, (3) corporate

strategy and planning, (4) finance, (5) corporate management, (6) corporate legal services and (7) internal audit. The units are public communication, procurement management and risk management. During the 2013/14 fiscal year, 57 new employees were recruited and about US\$ 906,102.6 and 669,782.7 were spent in 2014 and 2013, respectively, on staff training (URT, 2015d).³ By the time of writing this paper, the TPDC had approached its 1997 staffing levels as most recent data indicate a staffing level of 400 (TPDC, 2015d). In other words the TPDC is engaged in capacity building as part of the government's marshal plan to develop the capacity in the petroleum sector to prepare the country for viable commercial exploitation of the natural gas. In this regard, a Tanzania government report states:

'To minimise any potentially negative consequences, including the resource curse phenomenon and the Dutch disease effect, the GoT [Government of Tanzania] through the Ministry of Energy and Mineral (MEM), has considered [it] prudent to put in place the Human Capital Development programme. The initiative is based on the view that oil and gas production have large potential benefits for sustainable socio-economic development' (URT, 2014, p. 6).

However, as a respondent explained, 'it will take time before these newly recruited [members of] staff acquire the requisite experience [. . .] to function effectively in the sector'. As noted previously, the Petroleum Act of 2015 has bestowed the TPDC with the status of the National Oil Company with multiple roles spread out across the petroleum value chain:

(i) Advising the government on policy matters pertaining to [the] petroleum industry; (ii) participating in petroleum reconnaissance, exploration and development projects; (iii) carrying out specialised operations in the petroleum value chain using subsidiary companies; (iv) handling the government's commercial participating interests in the petroleum sub-sector; (v) handling the marketing of the country's share of petroleum received in kind; (vi) developing in depth expertise in the petroleum industry; (vii) investigating and proposing new upstream, midstream and downstream ventures local and international; (viii) contracting, holding equity or participating in oil service and supply chain franchises and other licences; and (ix) performing any petroleum activities and related functions (URT, 2015a, s.10(1)).

The implementation of specialised operations in the petroleum sector value chain is a point worth further elaboration. In terms of vision, these operations include the current subsidiary that has been established to manage the gas pipeline from Mtwara, the region where major discoveries of gas have occurred, to Dar es Salaam. The envisaged distribution of gas for domestic and industrial consumption, which will be performed by subsidiary companies and the establishment of companies that will use gas by-products to produce other products also constitute specialised operations.

As the TPDC is required to implement the commercial role, it is critical to appreciate what this role entails. The commercial aspects of the petroleum operations are usually defined as those related to participation as a business player in the revenue generating activities whose contours vary among NOCs (Heller et al., 2014). An NOC, for example, might be a minority shareholder with varying degrees of financial obligations, sales of government's share of oil/gas on international markets, downstream activities in the domestic markets to managing and financing of complex

exploration and production activities, and executing projects overseas along the lines of international oil companies. The TPDC is obliged by law to pursue or implement all these functions. However, the available literature shows that successful NOCs make decisions on which commercial aspects of the petroleum operations to focus on. For example, Petrobras' management decided to develop deep-water operating capabilities. As a result, Petrobras invested heavily in building this capacity as a core feature of its commercial development and been exploiting it as its core competence (Heller et al., 2014). Similarly, Sonangol of Angola plays the commercial role largely in terms of managing the environment, including local politics so that IOCs can operate without uncalled for political interference (Heller, 2012). In this respect, the NOC plays the role of a manager of the contracts and ensures that government dues in form of petroleum shares are duly paid. This analysis shows that, while the transformation of TPDC continues, a clear choice of focus within the commercial role menu has yet to emerge. In addition, the question of risk associated with a selected commercial focus will require careful consideration. Given its thin capital, the ability TPDC to absorb losses that may result from engaging in expensive projects that could turn out to be unsuccessful is a concern that should be factored in the decisions about the commercial focus.

In an apparent move to maximise the socio-economic benefits accruing from the petroleum sector, the Petroleum Act requires the TPDC to play roles in ensuring local content development across the petroleum value chain. The Petroleum Act stipulates:

'The National Oil Company shall have exclusive rights over natural gas midstream and downstream value chain to undertake the following . . . (I) promote local content including participation of Tanzanians in the natural gas value chain' (URT, 2015a, s.9 (2)).

Local content policies and regulations are increasingly seen as key tools for realising a greater share of benefits for the local economy through participation of local people in the petroleum sector. Ablo (2015) observed that Ghana passed the Petroleum (Local Content and Local Participation) Regulations in 2013 to promote local participation in the oil and gas sector. The draft local content policy of Tanzania enumerates a number of policy objectives to be achieved in which TPDC ought to play a pivotal role (URT, 2014).⁴ These include developing Tanzania's local businesses to become internationally competitive via the empowerment of local suppliers to meet the needs of the oil and gas industry, instituting a mechanism to ensure appropriate technology is transferred to Tanzania for managing and operating the oil and gas industry and enabling local training institutions to run requisite curriculum relevant for oil and gas industry. Furthermore, the TPDC should maximise the participation of skilled and unskilled Tanzanians in the oil and gas supply chain and value chain activities; enhance value addition and job creation through the use of local businesses and get local goods and services procured by operators in accordance with terms and conditions of their operating licences among others (URT, 2013).

The local content requirement is a large issue in Tanzania. As experience drawn from the mining sector illustrates, Tanzanian suppliers reportedly face enormous challenges when it comes to supplying quality products in a reliable manner. For example, suppliers would agree to supply fresh vegetables or chicken to companies but fail to deliver as required. So far, the Tanzania government has made no efforts to support such business ventures and mining companies' efforts to assist local suppliers to produce goods constitute 'little more than lip service and publicity stunts'

³ Prior to 2013, investments in training were negligible for two reasons: permission from the government to hire new staff had not been secured and financial resources to fund the training were limited.

⁴ This policy had not yet been finalized by the time of writing this paper.

(Hanlin, 2011 cited by Lange and Kinyondo, 2016). It is thus seen that TPDC has to address local content issues in order to avoid a repeat of problems encountered in the mining sector. Yet, this remains a challenge and requires of a comprehensive approach to address. As discussed below, TPDC may not be well suited to take up this role.

5.4. Challenges facing implementation of roles

Marcel (2016) classifies challenges that NOCs face in the course of their development as financial and human resource shortages. The TPDC also has to contend with these problems. Marcel (2016) further observes:

When countries enter the large-scale production stage, the opportunities and challenges NOCs face in terms of human resource development and access to capital are significantly distinct from the previous stages (p. 13).

In relation to the TPDC, this corporation relied on the government to finance its budget at inception, a fact that changed slightly when it began to import oil. At that time, it even paid government dividends. After it was barred from importing oil, it reverted to relying on government subventions up to the time of this research. A recent TPDC annual report notes:

'TPDC being a 100% owned by [the] government, all cash requirements come from [the] Treasury as per Parliamentary allocation... Capital is maintained through Parliamentary allocations to the corporation through the Ministry of Energy and Minerals ...' (URT, 2015d, p. 37).

Yet, funding through budgetary allocations has two major shortcomings: inadequacy of funds allocated and late disbursement of whatever funds have been allocated. The corporation is also currently highly leveraged with assets to debt ratios of 0.78 and 0.64 in 2014 and 2013, respectively (see Table 2). The large debt of about Tanzania 1.1trn (or US \$ 1.2bn) was borrowed by the government from Exim Bank of China to finance the construction of the gas pipe that runs from the gas producing areas of Mtwara to the commercial hub of Dar es Salaam (URT, 2015d). This debt is likely to be capitalised as additional government investment in the TPDC. The current authorised share capital of the corporation stands at Tanzanian Shillings 2.5bn of which 2.2bn has already been issued; the treasury registrar holds the shares on behalf of the government. This financial situation suggests that meaningful execution of the commercial requires the government's concerted efforts to fund the company or pursue aggressive fund raising through capital restructuring.

The scaling down of operations for over 20 years since 1999 meant that the corporation did not develop adequate internal capacity to execute the commercial role. The company had by June 2014 only 171 (URT, 2015d). The expertise needed for the TPDC to become fully commercial has yet to be determined. However, as

discussed earlier, the TPDC is beefing up its staffing through recruitment and training. Thus far, two scenarios emerge: retention of a portion of petroleum revenues and raising non-state capital towards carrying out its development activities. In this regard, the Petroleum Act and the Oil and Gas Revenue Management Act address this issue state:

'... for the purpose of carrying out its development activities provided for under this Act, the National Oil Company shall retain a proportion of funds from oil and gas revenue as shall be determined in the Oil and Gas Revenue Management Act' (URT, 2015a, s. 10 (4)).

'... surface rentals or annual block fees, signature bonuses and training fees shall be retained by the National Oil Company for purposes of enhancing development of oil and gas subsector' (URT, 2015c s. 6 (3)).

The sources of funds that TPDC has been allowed to retain tend to produce insignificant amounts of financial resources compared to other sources. For example, the most recent TEITI report shows that surface rental and training fees produced a paltry 2% of the total payments that the government received from extractive companies, which operated in the country in 2013/2014 (TEITI, 2015). That said, a decision to raise finance from the market is implicit in the government's commitment to maintaining a majority stake. In fact, the Petroleum Act requires the government to ensure that it maintains a minimum of 51% shares in the national oil company at all times (URT, 2015a). This implies the willingness of the government to admit investors from either the private sector or other governmental agencies to occupy a minority position. But should this happen, the government's current position in relation to the TPDC is likely to change. In this regard, the Oil and Gas Revenue Management Act of 2015 alludes to a situation whereby the government may decide not to use the TPDC for certain purposes, including collecting its revenues from the petroleum sector. Thus,

'... (1), the Minister may, by notice published in the Gazette, appoint another Government entity to collect oil and gas revenues in place of the National Oil Company in the event any of the following occurs: (a) the National Oil Company floats or issues its shares to the public or to any other private entity or person' (URT, 2015a, s.4).

This foregoing statement indicates willingness on the part of the government to give the TPDC a significant degree of autonomy to focus on its commercial role. However, it also suggests that the corporation will eventually cease to be seen as an extension of the government, an aspect that signals potential evolution of arm's length type of relationships with the government. For now however, the law provides privileges to the TPDC.

'(1)The petroleum operations rights shall be granted to the National Oil Company. ... (2) The National Oil Company shall have exclusive right over all petroleum rights granted under this Part.(3) The license granted to the National Oil Company shall not be transferable to any other person. ... (4) The National Oil Company may, subject to the Minister's consent and on advice by PURA, enter into partnership with a Tanzanian or a foreign entity through an open tendering process or a direct award of a block.(5) The license granted under subsection (1) shall require the National Oil Company to maintain a participating interest of not less than twenty five per cent unless the National Oil Company decides otherwise.(6) A company wishing to carry out petroleum operations in Tanzania outside the scope of a reconnaissance permit shall do so together with the National Oil Company' (URT, 2015, s.44).

Whereas there is no guarantee that these will privileges will not end, it is important to appreciate that the arrival of non-

Table 2
TPDC's Assets and structure of capital.^a

	As at June 30th 2014	As at June 30th 2013
Total Assets	1,639,383,738,743.00	792,437,105,931.00
Financed by:		
Total Equity	354,530,939,943.00	283,479,895,344.00
Long Term Liabilities	1,198,984,573,896.00	457,120,788,451.00
Short term liabilities	85,868,224,904.00	51,836,422,136.00
Total debt finance	1,284,852,798,800.00	508,957,210,587.00
	1,639,383,738,743.00	792,437,105,931.00
% of Debt finance on Assets	78%	64%

^a This extract of the Balance sheet is in Tanzania Shillings. The applicable respective exchange rates to the US\$ for the balance sheets were 1641/\$ and 1,594.7, respectively, by June 30 of 2014 and 2013. Source: TPDC's Annual Audited Report, 2014.

governmental investors could trigger new dynamics that might necessitate a shift to forms of governance relationship that are more market-oriented than bureaucratic ones that currently exist between the TPDC and the government. For example, it is not likely that the chief executive officer of the corporation and chairman of the board of directors will continue to be appointed by the head of state or that salaries of the TPDC staff will continue to come from the national treasury as they currently do once new investors join the TPDC.

6. Discussions

Three roles of NOCs discussed in the literature involve addressing information asymmetry, improving the government's take and enabling more government control of the petroleum sector as well as ensuring a steady supply of energy (Marcel, 2006; Stevens, 2012). These roles are projected on TPDC. The analysis of Tanzania's NOC case demonstrates that the roles of the TPDC have evolved over time from that of monitoring an exploration license to importation of oil to the promotion or marketing of the country's oil and gas potential. Marcel (2016) posits that this a typical situation for NOCs in developing countries where roles tend to alternate between a focus on the upstream and downstream depending on whether promoting new exploration or securing adequate supplies of refined products was important at the time. This finding supports the hypothesis that focuses on a defined role and having resource to execute that role. The analysis shows that with revenues generated from the importation of oil and sale of data, the TPDC intensified data collection, which was critical for attracting IOCs, which subsequently concretised the discovery of commercial gas deposits. The implication is that adequate resources need to be availed to the TPDC for it to exert its commercial role. This should be reinforced with clear performance metrics to create incentives for competitiveness and innovation.

Large-scale exploration and production requires huge amounts of resources, which are currently not at the disposal of the TPDC as revealed by the current financial status. Thus, even though the current legal framework allows the TPDC to accumulate capital through the retention of a portion of funds collected from petroleum operations, this is likely to be a long-term measure. Besides, the types of revenues that the TPDC has been allowed to retain, as mentioned earlier, remain insignificant considering the levels financial requirements that petroleum sector activities demand. Consequently, the TPDC needs to consider a gradualist approach to its commercial role by focusing on undertaking activities that are less demanding in terms of human and financial investments and evolve gradually to undertaking more sophisticated operations as more skilled staffing and capital resources are accumulated.

The recognition that private funding may be necessary to prop the company up is important and it marks a departure from the previous position which held that: 'no other person other than the Treasury Registrar on behalf of the United Republic shall be entitled to subscrib[ing] for or hold[ing] any share in the corporation' (URT, 1985, p. 8). However, there are governance implications associated with this development: it is sure to introduce other shareholders into the decision-making process of the TPDC. Although this is not the only way for TPDC to raise finance, as borrowing could be considered, it offers various benefits including risk sharing, the possibility of attracting managerial talent that could infuse a new work culture and access to new technology in ways that may be less costly to the TPDC. Moreover, the arrival of non-governmental investors, through partial listing or the approaches will require TPDC to become attuned to dealing with investors who have stringent efficiency requirements. In this regard, the culture of the corporation will require orientation

towards this new reality even though government will continue to be the major shareholder as per current law. It also means that current flexibility regarding how the state uses or instructs the TPDC will be reduced, if not completely curtailed, to meet the demands of non-governmental capital, which may be to maximise the shareholder value, a norm that calls for a more entrepreneurial approach to decision-making. This is generally likely to generate positive outcomes for the TPDC, as it will motivate managers to act in ways that consistent with economic thinking.

On the whole, effectiveness and efficiency in the commercial role of the TPDC will require effective corporate governance. With more non-state capital involved, much less bureaucratic decision-making processes will become critical with high levels of transparency and accountability being the norm. Indeed, the international standards of corporate governance will become inevitable, as the TPDC will be subjected to a more competitive environment alongside IOCs. Efficient internal control processes and mechanisms, including a professional board of directors capable of making decisions focusing on the interest of the company and by which it will be held accountable, will become imperative.

The latter point can lead to that challenges that the TPDC could face in playing its local content role. Local content development calls for knowledge (as well as skills) and resources to develop it and is not necessarily in concert with the commercial role. In its role as the overseer of contracts between the government and IOCs, the TPDC was required to enforce local content clauses found in these agreements although it is not known how effectively this was done. As the enforcement of the licences will now fall under the regulatory body, that is PURA, the TPDC will be less involved and, hence, less informed about the actual practices of different companies in relation to execution of local content requirements as respective exploration or production licences define them. Consequently, the TPDC runs the risk of failing to be the most effective player in the enforcement of local content requirements. The paucity of financial and human resources constitutes a further challenge. Thus, the TDPC's ability to develop productive industrial linkages as in the case of ARAMCO of Saudi Arabia seems constrained in the foreseeable future. Thus, in order to accord adequate attention to the local content development, Tanzania needs to learn from the example of Ghana which established a dedicated institution to promote local content through local participation in the petroleum sector. The Enterprise Development Centre (EDC) established in Ghana to promote local participation through enterprise development helped, among other things, to enhance local content by stimulating backward linkages in terms of local firms established to service the oil and gas sector (Ablo, 2015).

7. Conclusion

The broader governance context of the petroleum sector in Tanzania has been redefined through the enactment of three recent pieces of legislations, some of which are only beginning to be enforced, including the articulation of the role of the National Oil Company. The established institutional arrangements have been set up to promote a collectivist approach to decision-making by ensuring that no single individual or institution can unilaterally make significant decisions without involving other institutional actors. The Tanzania National Oil Company in this regard has been assigned two roles: the commercial and socio-economic roles involving the promotion of local content policies. However, as the exact focus of the National Oil Company within the broader commercial role has yet to emerge, it is hard for the NOC to develop 'core competencies' over time. As such, policy-makers would do well to consider and articulate such a focus to boost the prospects

and operational environment of the country's NOC. This means that further analysis of the various options along with risks involved is required to enable policy makers to decide on the precise definition and contours of the commercial role for TPDC. This should go hand in hand with a more detailed analysis of TPDC capacity to better understand how well the existing capacity matches the envisaged commercial focus.

Also, related issues such as capital adequacy and corporate governance require further analysis and policy attention in terms of various options that could be pursued based on cost-benefit assessment. Furthermore, attention to local development through local content strategies runs the risk of not being adequately considered by the National Oil Company due to the current resource limitations. Considering the importance of this issue and the absence of such attention, it is advisable to assign the local content development responsibility to a different agency as well as allocate resources for execution of that role.

Further research is also needed on the broader governance of the petroleum sector to understand the implementation of institutional mandates to assist in curving out more effective institutional frameworks. Thus, researching on the actual implementation of the roles and how they achieve the intended outcomes as well as their evolution overtime will be interesting. For example, under what conditions will the established arrangements function effectively? Based on previous experiences evident in the implementation of the local content by TPDC, research is needed to understand the effectiveness with which the policy was implemented and with what outcomes. Doing so would inform future efforts aimed at promoting industrial linkages via the local content in the extractive industry.

Annex 1. Functions of TPDC as per establishment Order of 1969 (URT, 1969)

- i To promote the development of the Petroleum industry and production of petroleum
- ii To carry on the business of prospectors, producers, refiners, stores, suppliers and distributors of petroleum
- iii To conduct or engage in petroleum prospecting, operations including exploration, drilling, testing, appraisal, extraction, producing, treatment, storing, transportation and such other activities relating thereto as the board may from time to time decide.
- iv To acquire by agreement and hold interests in any undertaking, enterprise or project associated with exploration and prospecting for or the production of, petroleum and for such purposes to obtain, exercise, carry out and use any mining lease, license, concession, franchise, authority, power, right or privilege which any government, corporation, public body or other authority may be empowered to grant.
- v To manage the affairs of any corporation, company, firm or other body the interests of which are transferred to or acquired by the corporation under the provisions of the Act or this Order.
- vi To carry on its business, operations and activities either within the United Republic of Tanzania or elsewhere, whether as principal, agent, contactor or otherwise and either alone or in conjunction with any other persons, firms or bodies corporate.
- vii To do all such acts and things as may be necessary to uphold and support the credit of the corporation and to obtain and justify public confidence and to avert or minimise any loss to the corporation.
- viii To do anything or enter into any transaction which in the opinion of the board of directors is calculated to facilitate the proper and efficient carrying on of its activities and proper performance of its functions as specified in this paragraph.

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