TANZANIA OIL AND GAS ALMANAC



A Reference Guide published by the Friedrich-Ebert-Stiftung Tanzania and OpenOil

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EDITORIAL

Abdallah Katunzi - Chief Editor Marius Siebert - Deputy Editor

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Friedrich-Ebert-Stiftung P.O Box 4472 Mwai Kibaki Road Plot No. 397 Dar es Salaam, Tanzania Telephone: 255-22-2668575/2668786

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PREFACE

With an estimated gas reserve of more than 55 trillion cubic feet (Tcf), Tanzania readies itself to join the gas economy. Large multinational oil companies are currently exploring natural gas and oil in various parts of Tanzania – both offshore and onshore. Despite these huge discoveries, there is little publicly available information on natural gas on a wide range of issues.

Consequently, the Friedrich-Ebert-Stiftung (FES), Tanzania, with the technical support of OpenOil- a Berlin based organisation – created the Tanzania Oil and Gas Almanac as a living database for publicly available information around the country's Oil and Gas sector. It has been created to significantly increase the stock of information available in local contexts among extractive stakeholders including civil society organizations, government, journalists and companies. Therefore, the almanac is a unique platform in which Tanzanians will be able to access all the information necessary, thus promoting transparency and accountability in the oil and gas sector.

All information included in this book is drawn from publicly available sources and is clearly footnoted, thereby enabling the reader to locate the source from which the information was extracted for further research. Crucially, it was created using MediaWiki software, meaning that there now exists an online database of all the articles which is being updated as more information becomes available. As such, this printed almanac is merely a snapshot of what the database looks like at any given moment.

The book covers a wide range of topics from Energy Industry Background; History and Context; Regulatory Framework; Political, Social and Environmental Impacts; State-Owned Entities; International Oil and Gas Companies; Oil and Gas Fields; Key Infrastructure; Resource Transparency Opportunities; Employment and Local Content as well as Regional Overview.

The online version of the Tanzania Oil and Gas Almanac can be viewed at http://wiki.openoil.net/index.php?title=Tanzania_Oil_and_Gas Almanac.

Unlike the print edition, the online version of the Tanzania Oil and Gas Almanac is available in both English and Kiswahili to give access to a wider Tanzanian public.

OpenOil has created similar almanacs for other countries across the Middle East, Africa, and South America. For more information, please visit the following websites: openoil.net and wiki.openoil.net.

I would like to thank the editors, contributors and the staff of FES-Tanzania for their assiduous efforts in making this publication a reality.

Rolf Paasch

Resident Director Tanzania Office Dar es Salaam September, 2015

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Acronyms

BoT Bank of TanzaniaBP British Petroleum

CRPO Central Registry of Petroleum OperationsCNOOC China National Offshore Oil Corporation

CCT Christian Council of Tanzania
CAG Controller and Auditor General
CSR Corporate Social Responsibility
DSE Dar es Salaam Stock Exchange
DPG Development Partners Group
EARS East African Rift System

EWURA Energy and Water Utilities Regulatory Authority

EISF Extractive Inter-Stakeholders Forum

EITI Extractive Industries Transparency Initiative

ISCJIC Interfaith Standing Committee on Economic Justice and

the Integrity of Creation

IEA International Energy Agency

IEDC International Economic Development Corporation

IMF International Monetary FundIOCs International Oil Companies

LNG Liquefied Natural Gas

LGAs Local Government Authorities
LSE London Stock Exchange
MCT Media Council of Tanzania

MPSA Model Production Sharing AgreementMEM Ministry of Energy and Minerals

MoF Ministry of Finance

MOGBE Mtwara Oil and Gas Business and Career Expo

BAKWATA National Muslim Council of Tanzania

NPGIS National Petroleum and Gas Information System

NOCs National Oil Companies
NGRF Natural Gas Revenue Fund

NRGI Natural Resource Governance Institute

ONGEA Oil, Natural Gas and Environmental Alliance

OGP Open Government Partnership

PURA Petroleum Upstream Regulatory Authority

PSA Production Sharing Agreement

PWYP Publish What You Pay
REA Rural Energy Agency

SPE Society of Petroleum Engineers

SWF Sovereign Wealth Fund

TEITI Tanzania Extractive Industry Transparency Initiatives

TEC Tanzania Episcopal Conference
TANESCO Tanzania Electric Supply Company
TNRF Tanzania Natural Resource Forum

TOGaCE Tanzania Oil and Gas Conference and ExhibitionTPDC Tanzania Petroleum Development Corporation

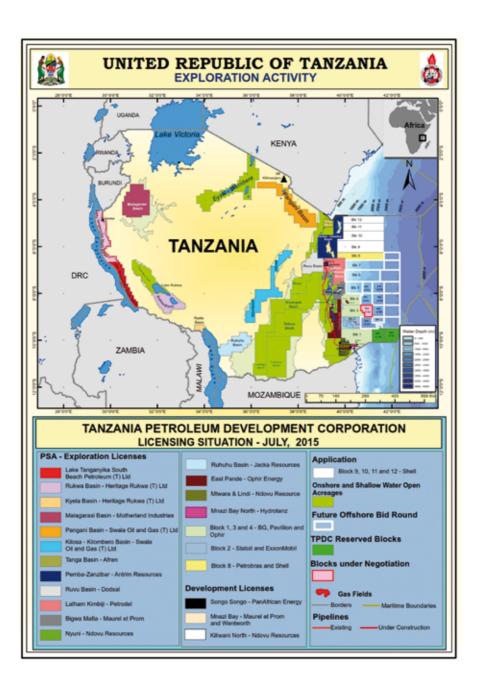
TPA Tanzania Ports Authority
TRA Tanzania Revenue Authority
UDSM University of Dar es Salaam

UDOM University of Dodoma

VCC Vale Columbia Centre on Sustainable International

Investment

VETA Vocational Education and Training Authority



Energy Industry Background

1.1 Definition of Hydrocarbon Reserves

Different systems have been used to classify reserves of oil and gas since the industry first developed in the nineteenth century. But the most widely used definitions today are provided by the Petroleum Resources Management System of the American Society of Petroleum Engineers (SPE).¹

Reserve estimates are a major driver of value for exploration and production companies. All reserves are estimates of underground reservoirs which cannot be physically inspected and always involve some degree of uncertainty. However such systems are important in creating a 'universal language' of clear terms and definitions that result in reliable and easily comparable reserve estimations for investors, regulators, governments and consumers.² However it should be noted that around the world, government agencies and organizations use slightly different definitions.³

According to the Vice President of petroleum consultancy Ryder Scott, there has been a trend towards commissioning external audits of estimated reserves. With increased attention given to corporate responsibility in financial reporting, he asserts that oil and gas companies are now engaging third-party engineers to evaluate or audit petroleum reserves.⁴

Categories of reserves

According to the SPE Guidelines, 'reserves' are a subset of 'resources', representing the part of resources which are commercially recoverable and have been justified for development.

^{1 &}quot;Petroleum Reserves & Resources Definitions" Society of Petroleum Engineers, retrieved 18 January 2012.

^{2 &}quot;SPE Petroleum Resources Management System Guide for Non-Technical Users" Society of Petroleum Engineers, retrieved 18 January 2012.

^{3 &}quot;Petroleum Reserves & Resources Definitions" Society of Petroleum Engineers, retrieved 18 January 2012.

^{4 &}quot;The Reserves Audit" Ryder Scott, retrieved 18 January 2012.

Reserves can be subsequently divided into the following three categories depending on certainty of recovery.⁵

Proved Reserves

The highest valued category of reserves is "proved" reserves. Proved reserves have a "reasonable certainty" of being recovered, which means a high degree of confidence that the volumes will be recovered. To be clear, reserves must have all commercial aspects addressed. It is technical issues which separate proved from unproved categories.⁶

The term 1P is frequently used to denote proved reserves.⁷ BP publishes an annual Statistical Review which details proved reserves for over 50 producing countries.⁸

Probable and Possible Reserves

"Probable" or "possible" reserves are lower categories of reserves, commonly combined and referred to as "unproved reserves," with decreasing levels of technical certainty. Probable reserves are volumes that are defined as "less likely to be recovered than proved, but more certain to be recovered than Possible Reserves". Possible reserves are reserves which analysis of geological and engineering data suggests are less likely to be recoverable than probable reserves.⁹

The term 2P is used to denote the sum of proved and probable reserves and 3P the sum of proved, probable and possible reserves. The best estimate of recovery from committed projects is generally considered to be the 2P sum of proved and probable reserves.¹⁰

Resources

'Resources' denotes less certainty than 'reserves' because some significant commercial or technical hurdle must be overcome prior to

^{5 &}quot;SPE Petroleum Resources Management System Guide for Non-Technical Users" Society of Petroleum Engineers, retrieved 18 January 2012.

^{6 &}quot;SPE Petroleum Resources Management System Guide for Non-Technical Users" Society of Petroleum Engineers, retrieved 18 January 2012.

^{7 &}quot;SPE Petroleum Resources Management System Guide for Non-Technical Users" Society of Petroleum Engineers, retrieved 18 January 2012.

^{8 &}quot;BP Statistical Review 2009" BP, 2009.

^{9 &}quot;SPE Petroleum Resources Management System Guide for Non-Technical Users" Society of Petroleum Engineers, retrieved 18 January 2012.

^{10 &}quot;SPE Petroleum Resources Management System Guide for Non-Technical Users" Society of Petroleum Engineers, retrieved 18 January 2012.

there being confidence in the eventual production of the volumes.¹¹

Contingent Resources

These are resources that are potentially recoverable but not yet considered mature enough for commercial development due to technological or business hurdles. For contingent resources to move into the reserves category, the key conditions, or contingencies, that prevented commercial development must be clarified and removed. As an example, all required internal and external approvals should be in place or determined to be forthcoming, including environmental and governmental approvals. There also must be evidence of firm intention by a company's management to proceed with development within a reasonable time frame (typically 5 years, though it could be longer).¹²

Prospective Resources

Prospective resources are estimated volumes associated with undiscovered accumulations. These represent quantities of petroleum which are estimated, as of a given date, to be potentially recoverable from oil and gas deposits identified on the basis of indirect evidence but which have not yet been drilled.

This class represents a higher risk than contingent resources since the risk of discovery is also added. For prospective resources to become classified as contingent resources, hydrocarbons must be discovered, the accumulations must be further evaluated and an estimate of quantities that would be recoverable under appropriate development projects prepared.¹³

^{11 &}quot;SPE Petroleum Resources Management System Guide for Non-Technical Users" Society of Petroleum Engineers, retrieved 18 January 2012.

^{12 &}quot;SPE Petroleum Resources Management System Guide for Non-Technical Users" Society of Petroleum Engineers, retrieved 18 January 2012.

^{13 &}quot;SPE Petroleum Resources Management System Guide for Non-Technical Users" Society of Petroleum Engineers, retrieved 18 January 2012.

1.2 Natural Gas

What is natural gas?

About 85% of natural gas produced from conventional wells is methane, a highly flammable compound made up of one carbon atom and four hydrogen atoms. ¹⁴ It is colourless and, in its pure form, odourless. As the gas has no odour, gas companies often add a chemical to the gas to give it a distinctive smell so that gas leaks may be detected by smell. ¹⁵

The units of measurement used for natural gas are generally based on volume and measured in cubic feet (a cubic foot being one foot long, by one foot wide, by one foot deep). This volume is usually expressed in BCF (billion cubic feet), Tcf (trillion cubic feet) and MCF (thousand cubic feet).¹⁶

According to the US Department of Energy, for many years natural gas was considered worthless and discarded, and is still released by flaring today in many countries.¹⁷ Natural gas can be found as either associated gas, non-associated gas, wet gas (a type of non-associated gas) or coal bed methane.¹⁸

Non-associated gas

Non-associated gas is gas which is found in reservoirs which do not contain significant quantities of crude oil. 19 It often occurs at greater depths where heat has split all of the hydrocarbons into smaller, lighter gas molecules. Shale gas is one type of unconventional non-associated gas. 20

Associated gas

Associated gas is found in association with crude oil, either dissolved in the oil or as a "cap" of free gas above the oil. Where it cannot be used, associated gas is either reinjected into the well, flared or vented.²¹

^{14 &}quot;Oil and Gas Resources and Their Uses" TEEIC, retrieved 13 February 2012.

^{15 &}quot;Natural Gas" US Department of Energy, retrieved 13 February 2012.

^{16 &}quot;Natural Gas Measurement" KGM, retrieved 13 February 2012.

^{17 &}quot;Natural Gas" US Department of Energy, retrieved 13 February 2012.

^{18 &}quot;Oil and Gas Resources and Their Uses" TEEIC, retrieved 13 February 2012.

^{20 &}quot;Oil and Gas Resources and Their Uses" TEEIC, retrieved 13 February 2012

^{21 &}quot;Oil and Gas Resources and Their Uses" A Barrel Full, retrieved 13 February 2012.

Coal Bed Methane

Coal bed methane (CBM) or coal seam gas (CSG) is the natural gas extracted from coal beds during underground coal mining.

History of Natural Gas

In the absence of pipelines, through the 1800s the natural gas which was found was used almost exclusively as a fuel for lamps. However the invention of the "bunsen burner" in 1885 proved that gas could be used to provide heat for cooking and warming buildings.

The construction of pipelines allowed natural gas to be brought to new markets. One of the first substantial pipelines was built in 1891 in the US, however few pipelines were built until after the Second World War in the 1940s.²²

Role of natural gas in the energy mix

The International Energy Association (IEA) estimated in 2011 that natural gas could overtake coal and rival oil by 2035 to account for over 25% of global energy demand.²³

According to the London-based *Petroleum Economist*, the growing interest in gas as an element in today's energy mix represents a "structural shift in energy markets." Natural gas holds several benefits as a fuel for a low-carbon future, including:

- the lowest carbon footprint of all fossil fuels.
- a shorter lead time to build gas-fired power plants and greater operational flexibility.
- ability to reduce greenhouse gas emissions by 25% in the transport sector compared to traditional motor fuels.²⁴

The International Energy Agency also points out that gas can help to diversify energy supply and so improve energy security.²⁵

^{22 &}quot;The History of Natural Gas" US Department of Energy, retrieved 13 February 2012.

^{23 &}quot;Gas could make up 25% of global energy mix by 2035: IEA" Platts, 2011.

²⁴ "Unconventional Gas's Global Potential" Petroleum Economist, 18 July 2011.

^{25 &}quot;Are We Entering a Golden Age of Gas?" IEA, 2011.

1.3 Liquefied Natural Gas (LNG)

Overview

LNG or liquefied natural gas, is a clear, colorless, non-toxic liquid,²⁶ produced by cooling natural gas to -260° Fahrenheit (-160°C), at which point it becomes liquid. This process occurs to allow more efficient transport of natural gas, either by truck or by sea.²⁷ LNG takes up 600 times less space than natural gas in its gaseous form.²⁸

Converting natural gas into LNG can make stranded natural gas deposits more economically viable, as constructing pipelines can be expensive. In addition, LNG will not explode in an unconfined environment, so in the unlikely event of an LNG spill, the natural gas has little chance of igniting an explosion. Other benefits of LNG include that the liquification process removes oxygen, carbon dioxide, sulphur and water from the natural gas, resulting in LNG which is almost pure methane.²⁹ Once it reaches its destination, LNG is stored in its liquid form until it is warmed back to natural gas via the process of regasification.³⁰

Production

As of May 2015, there were 33 LNG production and export terminals worldwide, 120 regasification terminals³¹ and nearly 435 LNG ships³² altogether handling approximately 240 million metric tons of LNG every year.³³ These numbers are predicted to increase dramatically over the next decade due to the growing popularity of this clean fuel source.³⁴ LNG plants are capital intensive and rely on heavy debt.³⁵ But while LNG is reasonably costly to produce, advances in technology are reducing the costs associated with

^{26 &}quot;What is LNG?" Shell, retrieved 13 February 2012.

^{27 &}quot;Overview-About LNG" Center for Liquified Natural Gas, retrieved 13 February 2012.

^{28 &}quot;Liquified Natural Gas (LNG" NaturalGas.org, retrieved 13 February 2012.

^{29 &}quot;Liquified Natural Gas (LNG" Natural Gas.org, retrieved 13 February 2012.

^{30 &}quot;http://www.lngfacts.org/About-LNG/Overview.asp Overview-About LNG" Center for Liquified Natural Gas, retrieved 13 February 2012.

^{31 &}quot;World's LNG Plants" Global LNG Info, retrieved 5 June 2015.

^{32 &}quot;LNG Ships" Zeus Intelligence, retrieved 5 June 2015.

^{33 &}quot;IGU World LNG Report" International Gas Union, retrieved 5 June 2015.

^{34 &}quot;What is LNG?" ConocoPhillips, retrieved 13 February 2012.

^{35 &}quot;Analysis: East Africa risks missing LNG boom" Reuters, 19 September 2012.

the liquification and regasification of LNG.³⁶ The *BP World Energy Outlook* in 2012 predicted that LNG trade will grow twice as fast as global gas production, that is, at a rate of 4.4% per annum.³⁷

1.4 Energy Access in Tanzania

Overview

According to the latest data from the World Bank (2011), only 15 percent of the population in Tanzania had access to electricity. This figure is lower than in Tanzania's neighbouring countries of Kenya and Mozambique. In 2011, 19 percent of all Kenyans and 20 percent of Mozambicans had access to electricity. In rural areas, the electrification rate in Tanzania is only seven percent. A consultant commissioned by the Rural Energy Agency estimated that by the end of 2013 about 18% of the Tanzanian households were electrified. With an installed capacity of 773MW, Tanzania is the least electrified nation in East Africa with over 7.2 million households off-grid, according to the World Bank. The value lost due to electrical outages was 18 percent of the total sales in 2013. The majority of Tanzanians rely on bio-fuels and waste such as firewood for heating and cooking.

Connection charges

According to the World Bank, the average delay of obtaining an electrical connection in Tanzania was 51 days in 2013.⁴⁴ Minimum connection charges are US\$ 94 for a single phase connection to the national utility in rural areas and US\$ 168 for a single phase connection in urban areas. These costs increase with distance from

^{36 &}quot;Liquified Natural Gas (LNG" Natural Gas.org, retrieved 13 February 2012.

^{37 &}quot;World Energy Outlook 2030" BP, retrieved 13 February 2012.

^{38 &}quot;Access to Electricity" "World Bank" retrieved 01 December 2014.

^{39 &}quot;Access to Electricity" "World Bank" retrieved 01 December 2014.

^{40 &}quot;Tanzania to invest US\$ 300 Million in rural electrification", African Review, retrieved 01 December 2014.

^{41 &}quot;National Electrification Program Prospectus" Rural Energy Agency, retrieved 17 April 2015.

^{42 &}quot;Tanzania to invest US\$ 300 million in rural electrification" African Review, retrieved 01 December 2014.

^{43 &}quot;Overview Tanzania" U.S. Energy Information Administration, retrieved 01 December 2014.

^{44 &}quot;Electrical Connection Delay" World Bank, retrieved 01 December 2014.

the national power grid as well as other factors. The high connection fee is a leading barrier to increased electricity connectivity.⁴⁵

Recent Developments

In the beginning of 2014, the Rural Energy Agency (REA) signed agreements for a programme to supply electricity to 14 regions in Tanzania. These regions are Simiyu, Katavi, Shinyanga, Njombe, Tabora, Mwanza, Mtwara, Singida, Kilimanjaro, Iringa, Mara, Dodoma, Arusha and Ruvuma. Tanzania will spend US\$ 300 million for the rural electrification programme until 2017. The plan includes harnessing six new hydro-power plants on waterfalls of Darakuta in Babati, Lingatunda in Songea, Luswisi in Ileje, Macheke in Ludewa, Mwago in Kasulu and Nole-Ihalula in Njombe.

1.5 Energy Mix in Tanzania

According to the most recent statistics from the International Energy Agency (IEA), Tanzania's total energy consumption has increased by 34 percent from 14.92 million tonne of oil equivalent (mtoe) in 2002 to 22.16 mtoe in 2012. Tanzania's energy consumption per capita has risen from 0.42 tonne of oil equivalent (toe) per capita in 2002 to 0.46 toe per capita in 2012. This is slightly lower than neighbouring Kenya's which stands at 0.48 toe per capita.⁴⁷

In 2012, the most important sources of energy consumption in Tanzania by far were bio-fuels and waste such as firewood. These sources of energy accounted for more than 85 percent of the total energy consumption. A further 14 percent came from oil products and natural gas with the remainder coming from hydro-power.

About half of Tanzania's electricity was produced by natural gas, 29 percent by hydro-power and 20 percent by oil. The remainder come from bio-fuels and solar power.⁴⁸ Tanzania's total energy production has increased by more than 30 percent from 2002 to 2012. In 2002, Tanzania produced 13.93 mtoe which increased to 19.94 mtoe in

^{45 &}quot;Energy Access Review" EED Advisory, retrieved 01 December 2014.

^{46 &}quot;Tanzania to invest US\$ 300 Million in rural electrification" African Review, retrieved 01 December 2014.

^{47 &}quot;Balances" U.S. Energy Information Administration, retrieved 01 December 2014

^{48 &}quot;Electricity and Heat" " U.S. Energy Information Administration" retrieved 01 December 2014.

2012. In the same period of time net energy imports more than doubled from 1.09 mtoe to 2.40 mtoe.⁴⁹

Tanzania currently produces small volumes of natural gas for domestic consumption, but the country has the potential to become a liquefied natural gas exporter in the future. Tanzania does not produce crude oil; in fact, no commercial oil discovery in the country has been reported recently.⁵⁰

Tanzania produced 33 billion cubic feet of natural gas in 2012, all of which was consumed locally. The country expects to marginally increase natural gas production in the next few years from the Mnazi Bay Concession (Maurel and Prom in Tanzania), located in southeast Tanzania in the Rovuma Basin. A pipeline (Dar es Salaam-Mtwara) is being constructed to transport natural gas from Mnazi Bay to Dar es Salaam. Tanzania also produces small volumes of coal. The country produced 106,000 short tonnes of coal in 2012, all of which was consumed locally. 22

1.6 Oilfield services industry

Oilfield services companies assist drilling companies in the oil industry in setting up oil and gas wells. Such companies may manufacture, repair or maintain the equipment used in oil extraction and transport. Services can include seismic testing (mapping the geological structure beneath the ground), transport services (such as movementof land and water rigs) and directional services (such as angled or horizontal holes). National Oil Companies (NOCs) and international oil companies (IOCs) often lack such technical and geological skills and so turn to service companies.

^{49 &}quot;Balances" U.S. Energy Information Administration, retrieved 01 December 2014.

^{50 &}quot;Overview" U.S. Energy Information Administration, retrieved 01 December 2014

^{51 &}quot;Overview" U.S. Energy Information Administration", retrieved 01 December 2014.

^{52 &}quot;Overview" U.S. Energy Information Administration, retrieved 01 December 2014.

^{53 &}quot;Industry Handbook: The Oil Services Industry" *Investopedia*, retrieved 12 March 2012.

^{54 &}quot;The oil-services industry: Rigging the market" Economist, 23 June 2011.

According to a 2014 report, the global oilfield services industry was a US\$ 150 billion industry in 2014 and is expected to become US\$ 290 billion by 2019. This is due to the growing demand for energy with an increase in the number of investments of offshore and unconventional exploration and production activities. 55

Major Trends

Unconventionals and Offshore Drilling

Industry observers predict that the burgeoning unconventional energy industry will create a boost in demand for the services industry. Production of shale oil and other unconventionals brings logistical and technological challenges and demands a huge increase in the number of rigs supplied. A surge in offshore drilling activity is also predicted to boost demand. According to reports in the *Economist* newspaper, America is the centre of the oilfield service boom, where firms pioneered the technique of horizontal drilling in order to access shale oil and shale gas. ⁵⁶

Demand for Local Content

According to Ayman Asfari, CEO of UK-based Petrofac, NOCs are increasingly demanding to see "local content" (i.e. local operators) playing a part in new contracts for exploration, production and plant construction. This puts international oil companies at a disadvantage and creates an opportunity for oil services companies to build assets with local partners, maintain that asset for a period of time and then "hand it back" to the NOC to run in the long term.⁵⁷

Key Industry Players

According to Arabian Oil and Gas, as of 2008 the ten largest oilfield service companies globally were:

- 1. Schlumberger Limited
- 2. Halliburton
- 3. Saipem
- Transocean Ltd.
- 5. Baker Hughes

^{55 &}quot;Oilfield Services Market" Markets and Markets, retrieved 5 June 2015.

^{56 &}quot;The oil-services industry: Rigging the market" Economist, 23 June 2011.

^{57 &}quot;Ayman Asfari on Petrofac's road to Damascus" Telegraph, 30 October 2010.

- 6. Fluor
- 7. Weatherford International
- 8. BJ Services Company
- Petrofac
- 10. China Oilfield Services Ltd.

An *Economist* report suggests that by offering a full range of oilfield services, the "big four" of the industry (Schlumberger, Halliburton, Baker Hughes and Weatherford International) enjoy an advantage over smaller firms, as NOCs often prefer to deal with only one firm rather than deal with several. ⁵⁸

In 2011, a group of business school professors carried out a study to identify the 100 most innovative companies globally. They found that the oilfield services industries accounted for six of the top 100. Two of these were Schlumberger and Halliburton, and a further two were leading drilling equipment companies FMC Technologies and Cameron International. The remaining two were China Oilfield Services and Tenaris $SA.^{59}$

^{58 &}quot;The oil-services industry: Rigging the market" Economist, 23 June 2011.

^{59 &}quot;Musings: The Innovators in The Oilfield Service Industry Identified" RigZone, 30 October 2010.

2. History and Context

2.1 History of Tanzania's Oil and Gas Industries

According to the Ministry of Energy and Minerals (MEM), the exploration of Oil and Gas in Tanzania has been underway since 1952, with the first natural gas discovery made in 1974 in Songo Songo, Kilwa district in Lindi Region. Eight years later, in 1982, the second discovery was made in Mtwara Region, bordering Lindi, at Mnazi Bay. The commercialisation of the dual discoveries triggered on-shore and off-shore exploration. The exploration was being done by the multinational petroleum companies. There have been other significant discoveries in Mkuranga, Kiliwani North and Ntorya. The Tanzania Petroleum Development Corporation (TPDC), categorises the history of Oil and Gas in Tanzania in five phases: Phase I: 1952-1964, Phase II: 1969-1979, Phase III: 1980-1991, Phase IV: 1992-1999, and Phase V: 2000 to-date as explained below.

Phase I: 1952-1964

It was characterised by a concessionary system where British Petroleum (BP) and Shell were awarded concessions along the coast. This includes the Islands of Mafia, Pemba and Zanzibar (Unguja). The drilling of wells did not discover commercially viable hydrocarbon.

Phase II: 1969-1979

This phase was characterised by two important events in the history of Oil and Gas in the country. First was the establishment of the State owned Company, the Tanzania Petroleum Development Corporation (TPDC) in 1969, and second a significant discovery of gas at Songo Songo. After the establishment of TPDC, the first Production Sharing Agreement (PSA) was signed between TPDC and AGIP (Azienda

^{60 &}quot;National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 2 September 2014.

^{61 &}quot;Exploration History" Tanzania Petroleum Development Corporation, retrieved 5 September 2014.

^{62 &}quot;National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 2 September 2014.

^{63 &}quot;Exploration History" Tanzania Petroleum Development Corporation, retrieved 5 September 2014.

Generale Italiana Petroli - General Italian Oil Company) on the concessions that were being managed by BP/Shell during the first phase. In 1973, AGIP partnered with AMOCO and drilled five wells - three onshore and two offshore. Other literature indicates that a total of six wells were drilled by AGIP and AMOCO - three onshore and three offshore. His led to a significant gas discovery at Songo Songo in 1974. The discovery was confirmed by TPDC in its three well programme implemented from 1975-79. From 1978, TPDC ventured into exploration, conducting onshore and offshore seismic programmes. The onshore programmes covered Ruvu, Kimbiji/Bingwa, Pemba, Mafia and Ruvuma area while the offshore included Songo Songo, Pemba and Zanzibar.

Phase III: 1980-1991

The beginning of this phase saw the enactment of the Petroleum (Exploration and Production) Act of 1980 and the discovery of gas in Mnazi Bay. Out of the five phases, most of the drilling occurred in this phase being a result of the enactment of the Petroleum Act and high oil prices in early 1980s. The state company, TPDC, involved in the development of Songo Songo, drilling two wildcats (an exploratory oil/gas well) at Kimbiji East-1 and Kimbiji Main 1 wells as well as several seismic programmes. Shell, IEDC (International Economic Development Corporation), and Camarco Group, Elf and AMOCO were all awarded exploration licenses in oil and gas. Shell and later on Esso were assigned five licenses covering the Ruvu and Selous Basins in 1981. 66

Phase IV: 1992-1999

The fourth phase was characterised by little exploratory activities in its first years, lack of active concessions, and initiatives by authorities to further develop the Songo Songo gas field through fiscal and technical agreements. The state owned company, TPDC and TANESCO (Tanzania Electric Supply Company), in collaboration with Canadian companies Ocelot and Trans-Canada Pipelines, were actively engaged in the Songo Songo gas field (development, transmission and utilization).⁶⁷ The issuance of exploration licenses

 $^{64\,}$ "Tanzania Oil & Gas. Status and Trend" Publish What You Pay, retrieved $6\,$ September 2014.

^{65 &}quot;Tanzania Oil & Gas. Status and Trend" Publish What You Pay, retrieved 6 September 2014.

^{67 &}quot;Exploration History" Tanzania Petroleum Development Corporation, retrieved 5 September 2014.

in 1995 in the coastal basins to international companies including Tanganyika Oil Company, Exxon Mobil, Shell, KUFPEC (Kuwait Foreign Petroleum Exploration Company), and Amoco accelerated the exploration activities. Tanganyika Oil Company drilled two wells in the Mandawa Basin in 1996/97. Exploration agreements were signed between TPDC with Canadian companies Antrim Resources (now Atrim Energy Limited) and Canop World-wide, and Ndovu Resources of Australia. 68

Phase V: 2000 to-date

Several companies were licensed to operate during this period. These include Petrobras (Block 5, 2004), Ophir Energy (Block 1, 2005), Ophir Energy (Blocks 3, 4, 2006), Statoil (Block 2, 2007), Dominion (Block - 7, 20), Petrobras (Block - 8, 2012). The licensing was followed by exploration and drilling of wells by BG (Blocks - 1, 2, 3), Statoil (Block - 2) and Petrobras (Block - 5), which led to the significant discovery of gas in blocks 1, 2, 3 and 4. In March 2012, Statoil and Exxon Mobil made the biggest offshore gas reserve discovery (Zafarani field) off the coast of Indian Ocean.⁶⁹ Songo Songo and Mnazi Bay went into full commercial operation in 2004 and 2006 respectively. Up to June 2012, there were 26 Production Sharing Agreements (PSA) signed with 18 oil exploration companies. In an effort to manage the sector, the government adopted the The National Natural Gas Policy in 2013. The policy highlights key challenges associated with management of natural gas and how to facilitate more effective management of the industry.70

Additionally the government published a draft Local Content Policy (LCP) in 2014, the draft Petroleum Exploration Policy 2014 and the draft National Energy Policy 2015, the Oil and Gas Revenues Management Act 2015, the Petroleum Act 2015 and the Tanzania Extractive Industries (Transparency and Accountability) Act 2015.

^{69 &}quot;Tanzania profile" BBC, retrieved 6 September 2014.

^{70 &}quot;Making Natural Gas Guarantee Sustainable Development. Plans and Progess by VETA to Prepare Tanzanians to Engage in the Natural Gas Value Chain Process" Economic and Social Research Foundation, retrieved 6 September 2014.

2.2 Media Landscape in Tanzania

Background

The media in Tanzania have passed through four major phases: the German, British, post-colonial, and transition phases. During the German colonial rule, the media served the communication interests and needs of the German administration. Similarly, the media under British rule served as a propaganda tool to support the British colonial regime. During the British colonial rule, there were nationalist media established solely to serve the interest of the nationalists, who were agitating for self-rule. After then Tanganyika (before its Union with Zanzibar in 1964) attained independence in 1961, the newly-independent government established independent media geared towards fostering national development, promoting socialism and self-reliance as well as promoting national unity. Towards the end of the 1980s, Tanzania was passing through a transition - both politically and economically - which necessitated change in the media industry. It was during this phase that private media re-emerged and were re-established after many years of being sidelined in favour of state-run media due to the policies in place from 1967 to the 1980s.⁷¹ According to the Tanzania Communications Regulatory Authority (TCRA), there are 84 registered radio stations⁷², and 26 television stations in the country⁷³. Many newspapers mushroomed during the transition phase and following the introduction of plural politics in 1992. Although more than 350 publications have been registered, less than 15 per cent are operational.⁷⁴

Training in Oil and Gas Reporting

The Natural Resource Governance Institute (NRGI) in partnership with the Journalists Environmental Association of Tanzania (JET) organised two training workshops. The first training, which was conducted in Dar es Salaam in August 2013, attracted journalists from Tanzania, Ghana and Uganda. The second training was held in Kampala in June 2014. Some 29 journalists from Ghana, Uganda and Tanzania attended the workshop. Tanzanian journalists, who

^{71 &}quot;The Media History of Tanzania" Sturmer, retrieved 23 May 2015.

^{72 &}quot;Radio" Tanzania Communications Regulatory Authority TCRA, retrieved 23 May 2015.

^{73 &}quot;Television" Tanzania Communications Regulatory Authority TCRA, retrieved 23 May 2015.

benefited from the two workshops, came from KwanzaJamii, the Guardian, East African Business Week, Zanzibar Leo, Pambazuko FM. Nipashe, Channel 10, Zanzibar Broadcasting Corporation, Tanzania Broadcasting Corporation (TBC), the Daily News⁷⁵ and others. In the meantime, the Tanzania Media Fund (TMF) and the Media Council of Tanzania (MCT) are striving to improve the quality of extractive reporting in the country by offering short-term training and mentorship by targeting senior journalists and editors⁷⁶. Apart from the training initiatives, the media's role in covering the extractive sector is acknowledged under the Tanzania Natural Gas Policy (2013) framework, which acknowledges the importance of the the role of the media in providing accurate and balanced information on the natural gas industry to the public. In this regard, the media need to strengthen their capacity in understanding natural gas industry to deliver accurate and timely information. Such a development will help to increase public awareness as well as foster transparency and accountability on matters pertaining to the natural gas industry (Article 5.1.9)⁷⁷.

Media coverage of oil and gas

An article titled 'Journalism on resource stores: watchdog, guard-dog or lap-dog' published in the Scribes journal – a publication of the Media Council of Tanzania (MCT) – indicates that the extractive sector's reporting in Tanzania is characterised by five major issues:

- 1. Most of the stories are products of ready-made information supplied to the media by extractive companies.
- Stories lack in-depth analysis as manifested by over-reliance on information supplied by extractive companies to media, and lack of knowledge on the part of the messenger that tends to force journalists to succumb unwittingly to the lure of stories tailored by company spin-doctors.
- 3. Stories suffer from single-source syndrome and, hence, lack of source diversity.

^{75 &}quot;Strengthening Media Oversight of the Extractive Sectors" Resource Governance, retrieved 23 May 2015.

^{76 &}quot;Journalism on resource stores: watchdog, guard-dog or lap-dog" Media Council of Tanzania, retrieved 23 May 2015.

^{77 &}quot;Journalism on resource stores: watchdog, guard-dog or lap-dog" Media Council of Tanzania, retrieved 23 May 2015.

- 4. Marginalisation of public voices. Since extractive stories are heavily sourced from either the government or companies involved in the extractive business, public voices are mute in the resultant news. As the article notes, this "makes the public recipients of information and not active participants in the media sphere. Yet, the public are not only affected by extractive operations but also have a right to air their views on how the environment should be protected and social impacts dealt with for the benefit of the society and country at large."
- 5. Most of the stories focus on management issues of the extractive industry, and not on broad issues of the industry.⁷⁸ To encourage and strengthen quality journalism in extractive reporting the Organising Committee of the Excellence in Journalism Awards Tanzania (EJAT) included a new category on extractive industries in 2014.⁷⁹

Coverage of Statoil leaked PSA addendum

Following the leak of the Statoil PSA addendum, the media in Tanzania gave prominence to the leaked addendum. The Guardian⁸⁰ treated the leak as a front page splash, whereas other newspapers such as Mwananchi⁸¹, Nipashe⁸² and Mtanzania⁸³ placed the story in either second or third position on the front page. According to mtega blog, "most of these articles take a similar line [the contract is bad]. They don't really take a proper look at the contract itself, or ask whether or not the deal is a good one for Tanzania."⁸⁴

^{79 &}quot;The Sixth Excellence in Journalism Awards Tanzania EJAT 2014" Media Council of Tanzania, retrieved 23 May 2015.

^{80 &}quot;Tanzania to lose up to US\$1bn under Statoil PSA, says MP Zitto Kabwe" IPP Media, retrieved 23 May 2015.

^{81 &}quot;Tanzania kupoteza Sh1.6 trilioni za gesi" Mwananchi, retrieved 23 May 2015.

^{82 &}quot;Tanzania kupoteza Sh1.6 trilioni za gesi" IPP Media, retrieved 23 May 2015.

^{83 &}quot;Mkataba wa gesi wavuja", Mtanzania, retrieved 23 May 2015.

^{84 &}quot;Statoil gas contract: Tanzania's media picks up the story" Mtega, retrieved 23 May 2015.

Mtega blog also notes, "the only significant exception to that line [that the contract is bad] is the article in the government-owned paper, Daily News⁸⁵, which reports on the defence of the deal made by senior management of the Tanzania Petroleum Development Corporation."⁸⁶ The article quotes the then TPDC Managing Director, Yona Kilagane, as saying that "the government will earn 61 per cent of revenues from natural gas while Statoil and its partner ExxonMobil will share the remaining 39 per cent under the model PSA on exploration and production of natural gas."⁸⁷

^{85 &}quot;TPDC dismisses claims of losing out in contract" Daily News, retrieved 23 May 2015.

^{86 &}quot;Statoil gas contract: Tanzania's media picks up the story" Mtega, retrieved 23 May 2015.

^{87 &}quot;TPDC dismisses claims of losing out in contract" Daily News, retrieved 23 May 2015.

3. Regulatory Framework

3.1 Petroleum Act of Tanzania (2015)

Overview

The recently enacted Petroleum Act of 2015 is one of the main Acts governing the extractive industries sector in Tanzania. The Act covers the extraction of both oil and natural gas. The Petroleum Act provides for regulation of upstream, midstream and downstream petroleum activities, the establishment of the Petroleum Upstream Regulatory Authority (PURA) and the establishment of the National Oil Company. Moreover, it is supposed to secure the accountability of petroleum entities and to provide for other related matters.⁸⁸

The Petroleum Act together with the Tanzania Extractive Industry (Transparency and Accountability) Act and Tanzania Oil and Gas Revenue Management Act were tabled before the National Assembly under a certificate of urgency in June 2015. Despite controversies surrounding the bills, the National Assembly passed the three Bills in readiness for presidential assent into law. Subsequently, on 4 August 2015, President Kikwete assented to the laws.⁸⁹

Institutions

Oil and Gas Bureau

The Act establishes an Oil and Gas Bureau within the Office of the President. The Bureau will advise the Cabinet on strategic matters related to the oil and gas sector.⁹⁰

^{88 &}quot;[https://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd =2&ved=0CCYQFjABahUKEwib8JzfrOnHAhXOINsKHXyQCD4&url=htt p%3A%2F%2Fmem.go.tz%2Fwp-content%2Fuploads%2F2014%2F02% 2F17.06.15A-BILL-PETROLEUM-ACT-2015-Updated-version-15.6.15.pdf &usg=AFQjCNHOHRIBkJJuukVqrlfw8Mh3A926uQ&bvm=bv.102022582 ,d.d24&cad=rja The Petroleum Act, 2015}", "Government of Tanzania", retrieved 09 September 2015.

^{89 &}quot;Tanzania's new regime oil gas laws" "Breakthrough Attorneys" retrieved 09 September 2015.

^{90 &}quot;Tanzania's new regime oil gas laws" "Breakthrough Attorneys" retrieved 09 September 2015.

Petroleum Upstream Regulatory Authority

The Petroleum Upstream Regulatory Authority (PURA) will be a body with its own legal personality. Its functions will include advising the Minister of Energy and Minerals with regard to negotiations of the Production Sharing Agreements (PSAs) and other contracts with international oil and gas companies and implementing local content in the petroleum sector. PURA will also be responsible for processing, granting, renewing, suspending and cancelling of exploration, development and production licences.⁹¹

National Oil Company

The Tanzania Petroleum Development Company (TPDC) is designated as the official National Oil Company (NOC). The major role of the NOC will be to regulate the commercial aspects of the petroleum sector in upstream, midstream and downstream operations. The NOC will participate in petroleum reconnaissance and the development of projects. Moreover, the NOC will advise the government on matters relating to the petroleum industry. The government will hold a 51 percent stake in the company. 92

EWURA

The Petroleum Act establishes the Energy and Water Utilities Regulatory Authority (EWURA) as regulator of midstream and downstream activities. Its functions will include the issuing, renewal, suspension and cancellation of construction approvals and operational licences, the collection of fees and levies for the petroleum sector and approval of applications for tariffs and prices. 93 A further role for EWURA is to promote local content by advocating for the use of local goods and services produced and provided in Tanzania throughout the oil and gas value chain. 94

^{91 &}quot;Tanzania: Tanzania Bill establishing the Petroleum Act 2015" "mondaq. com" retrieved 09 September 2015.

^{92 &}quot;Tanzania's new regime oil gas laws" "Breakthrough Attorneys" retrieved 09 September 2015.

^{93 &}quot;Tanzania: Tanzania Bill establishing the Petroleum Act 2015" "mondaq. com" retrieved 09 September 2015.

Change of Petroleum Permit and Permits Extensions Duration

The new Act reduces the duration of the validity of extended Exploration and Development licences. An exploration licence may be extended for the first time for three years and for the second time for two years following an application by the holder of such a licence. Under the previous Petroleum (Exploration and Production) Act of 1980, a four-year licence period was followed by another four years as the first extension but the second extension was for three years. The power to grant these extensions lies with the Minister of Energy and Minerals under the new legislation as it was previously.⁹⁵

Transparency

The Act makes it a requirement for the Minister of Energy and Minerals, PURA and EWURA to ensure transparency in the oil and gas sector. PURA is allowed to make "details of all agreements, licences, permits and any amendments to the licences, permits or agreements whether valid or terminated" and "details of exemptions, variations or suspensions of conditions of licence and permit" available to the public, for a fee. The Act also requires EWURA to establish a National Petroleum and Gas Information System (NPGIS).

Most of this system shall be available for inspection by the public. Part of the NPGIS will constitute a Central Registry of Petroleum Operations (CRPO) containing information on:

a) petroleum supply and use by type, quantity and region; (b) petroleum importation by type, quantity and source; (c) petroleum exportation by type, quantity and destination; (d) refinery products by type, quantity and source; (e) petroleum or petroleum products in transit; (f) a record of all licence applications, grants, variations, transfers, suspensions and cancellations; and (g) all relevant information on the holders and their operations and installations.⁹⁶

^{95 &}quot;Tanzania's new regime oil gas laws" "Breakthrough Attorneys" retrieved 09 September 2015.

^{96 &}quot;Tanzania extractive industries draft laws- transparency" "mtega.com" retrieved 09 September 2015.

3.2 Petroleum Exploration Policy (Draft 2014) Tanzania

Introduction

The draft National Petroleum Policy was published by the Ministry of Energy and Minerals in July 2014. The policy formulation was participatory as it involved several stakeholders through the Petroleum Policy Committee.

Need for the Petroleum Policy

The significant discoveries of natural gas from 2010-2014 with total estimated gas reserves of more than 50.5 Tcf⁹⁷ have brought about challenges with regard to the sector's management and policy-making. Some of the challenges include:

- Lack of effective legal and regulatory framework in the petroleum industry
- Inadequate human resources with advanced knowledge and skills in the sector at the local level
- Challenging environment which is conducive for investment, and
- Lack of transparency in all transactions in the petroleum field.98

Policy Objectives

The policy's main objective is to ensure that petroleum resources in the country are explored, produced and utilised for the common good.⁹⁹ The policy outlines specific objectives to include the following:

- Ensuring transparency in the sector and that all documents are made available to the public
- Ensuring effective and efficient management of the country's petroleum
- Maximising national benefits and sustainable development of each citizen
- Establishing a mechanism to ensure reliable and affordable supply of petroleum.¹⁰⁰

^{97 &}quot;Petroleum Policy Draft" "TPDC" retrieved on 11th November 2014.

^{98 &}quot;Petroleum Policy Draft" "TPDC" retrieved on 11th November 2014.

^{99 &}quot;Petroleum Policy Draft" "TPDC" retrieved on 11th November 2014.

^{100&}quot;Petroleum Policy Draft" "TPDC" retrieved on 11th November 2014.

Existing Legal framework

Since petroleum is a cross-cutting sector, the draft policy embraces various policies and legislations which have a direct link with the sector. ¹⁰¹ Some potential legislations which drive the petroleum sector in the country include the Petroleum (Exploration and Production) Act of 1980 (Cap 328, R.E 2002) with provisions on the exploration and production of petroleum, the Income Tax Act of 2004, which provides for the charge, assessment and collection of Income Tax¹⁰², the Environmental Management Act of 2004, which provides for the framework to ensure a sustainable management of the environment¹⁰³, and the Occupational, Safety and Health Act of 2003, which provides for safety, health and welfare of persons at work. ¹⁰⁴

Institutional framework

The policy recognises the importance of key players in operationalising, enforcing, monitoring and evaluating the petroleum sector in the country to ensure the derivation of the desired outcomes. The policy identifies the Central Government (Ministry for Energy and Minerals), which is charged with developing policies, laws, regulations and plans governing the development of the petroleum sector. Other players include the National Oil Company, the Commissioner for Petroleum and Energy Affairs, the Energy and Water Utilities Regulatory Authority (EWURA) regulating the downstream at outset, private sectors, Non-governmental Organisations (NGOs) and Civil Society Organisations (CSOs), the Mass Media, and Academic and Research Institutions in the petroleum industry.

Stakeholders Views on the Policy

The CSOs such as the Interfaith Standing Committee on Economic Justice and the Integrity of Creation, HakiMadini, Policy Forum, Oil and Natural Gas Environment Alliance (ONGEA) have jointly presented their recommendations on the draft policy, which was also seconded by National Resources Governance Institute (NRGI). The recommendations include:

^{101 &}quot;Petroleum Policy Draft" "TPDC" retrieved on 11th November 2014.

^{102 &}quot;Income Tax Act, 2004" "TRA", retrieved on 11th November 2014.

^{103 &}quot;Environmental Management Act, 2004" "Lead Journal" retrieved on 11th November 2014

^{104 &}quot;Occupational, Safety and Health Act, 20039" "GoT" retrieved on 11th November 2014 .

- The need and importance of transparency and accountability as the main policy objective
- The need for an effective mechanism to ensure critical mass understanding of the policy
- The financing options for National Oil Company and subsidiaries
- The need for National Oil Company to publish their audited reports and have the company books reviewed by an external independent auditing firm.¹⁰⁵

3.3 National Natural Gas Policy of Tanzania

Tanzania has been exploring for oil and gas for more than 60 years now. The first natural gas discovery was made on the Songo Songo Island in 1974. This was followed by another discovery in Mnazi Bay in 1982. Thirty years later, in 2004, Songo Songo went commercial followed by Mnazi Bay in 2006. There have been significant gas discoveries both onshore and offshore. These developments – commercialisation of Songo Songo and Mnazi Bay as well as significant gas discoveries – raised one critical question, and that was: How could the government manage the fast growing industry? The answer to this question was the drafting of the National Natural Gas Policy of Tanzania. The policy was approved by the Cabinet on 10th October 2013.

Policy Pillars

The policy which is aligned with the Five Year Development Plan (2011/12-2015/16), the National Strategy for Growth and Reduction of Poverty (2010-2015), and other sectoral and cross-sectoral policies is premised on five pillars: 109

^{105 &}quot;Extractive industry working group position on draft national petroleum policy" "Policy Forum" retrieved on 12th November 2014.

[&]quot;Making Natural Gas Guarantee Sustainable Development. Plans and Progress by VETA to Prepare Tanzanians to Engage in the Natural Gas Value Chain Process" Economic and Social Research Foundation, retrieved 2 September 2014.

^{107 &}quot;National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 2 September 2014.

^{108 &}quot;Tanzania's cabinet approves final natural gas policy" Reuters, 19 November 2013

^{109 &}quot;National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 2 September 2014.

- Maximum benefits to the Government and the Citizens
- Development and strengthening of institutional framework and human capacity in the natural gas sector
- Transparency and accountability
- Presence of adequate disaster management systems to prevent and protect people's health, safety and environment, and
- Integration of natural gas sector in the wider economy for socioeconomic transformation

Policy Objectives

The policy is guided by 15 specific objectives. They, among others, include: developing facilities for the natural gas processing, liquefaction, transportation, storage and distribution; ensuring natural gas revenue is managed transparently, effectively and efficiently; promoting linkages between the natural gas industry with other strategic sectors of the economy; ensuring the government and citizens have sufficient capacity to participate effectively in the natural gas value chain; promoting, monitoring and evaluating transparency and accountability in the natural gas industry; and to sufficiently and effectively manage public expectations on benefits emanating from the industry.¹¹⁰

Focus

Although the natural gas operations involves three phases which are upstream, midstream and downstream, the policy delimits itself to midstream and downstream operations. The upstream activities will be guided by a separate policy. This, to some commentators, seems to leave the country on the losing side as the inclusion of the upstream operations (exploration, appraisal, development and production stages) in the policy would have enabled the country and its citizens to participate and benefit from the natural gas right from the inception stage.¹¹¹

^{110 &}quot;National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 2 September 2014.

^{111 &}quot;National policy on natural gas grossly inadequate" Guardian on Sunday, 24 November 2013

Natural Gas Revenue Fund

To ensure effective management of gas revenues, transparency and accountability, the policy proposes the establishment of the Natural Gas Revenue Fund. 112 According to the then Deputy Minister for Energy and Minerals, George Simbachaweni, who now heads the ministry, the government does not plan to take all the money from the gas sector to the Treasury as was with the proceeds from mining sector. "The proceeds from the natural gas will be set aside and put into the fund and it will be up to Tanzanians to decide what to prioritize when utilising the money accrued. In this way, citizens will link development directly with the natural gas. 113 According to the policy document, once established, the fund will be managed by the Bank of Tanzania (BoT).

Proposed Legislation and Amendment

To ensure effective and efficient management of the natural gas sector, the policy calls for a strengthening of fiscal, legal and regulatory framework. This encompasses the enactment of specific legislation including Natural Gas and Regulations and Natural Gas Revenue Management as well as the amendment of the Income Tax Act (Cap.332) and EWURA Act (Cap.414).

Institutional Framework

The policy recognises the importance of key players for operationalising, enforcing, monitoring and evaluating the gas sector in the country to ensure desired outcomes. It identifies the Central Government, Local Government Authorities, National Oil and Gas Company, Regulatory Authority, Bank of Tanzania (BoT), Private Sector, Academic and Research Institutions, Media, Civil Societies and Communities as key institutions to that effect. 116

^{112 &}quot;National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 2 September 2014.

^{113 &}quot;Tanzania to set up fund from gas to finance development" The East African, 7 December 2013 $\,$

[&]quot;National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 2 September 2014.

^{116 &}quot;National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 2 September 2014.

3.4 Contracts in Oil and Gas in Tanzania

Introduction

The Law of Contract Act, Cap.345 is the law governing contracts in Tanzania.¹¹⁷ The Contract (informally called agreement in some jurisdictions¹¹⁸) is enforceable by law, preceded by offer, acceptance and promise.¹¹⁹ In common legal systems, a contract has elements such as lawful object, competent parties, offer and acceptance, lawful consideration, and mutual obligation.¹²⁰ The Act provides the general principles, legal implications for all forms of contracts entered in Tanzania subject to provisions of any written law, usage or custom of trade not inconsistent with the provisions of the Act.¹²¹

Mandated organs for entering into Oil and Gas Contracts

The Tanzania Petroleum Development Corporation (TPDC) is mandated to contract, hold equity or participate in oil and gas concessions, franchising and licensing. It enters into contracts with oil and gas companies on behalf of the Government of Tanzania. The contracts/agreements made in the oil and gas sector constitute agreements as enabled by section 14 of the Petroleum (Exploration and Production) Act of 1980. The agreements are also regulated by section 42 of the Petroleum (Exploration and Production) Act whose provisions regulate the terms of any development licence.

Model of Contracts/Agreements in Oil and Gas

The model Production Sharing Agreement (PSA) in oil and gas was introduced by the TPDC in Tanzania as a contractual arrangement

^{117 &}quot;The Law of Contract ActCap 345 of the R.E 2002, section 1" "Government of Tanzania" retrieved on 22nd December 2014.

^{118 &}quot;Contract" "Wikipedia" retrieved on 22nd December 2014.

^{119 &}quot;The Law of Contract ActCap 345 of the R.E 2002, section 2" "Government of Tanzania" retrieved on 22nd December 2014.

^{120 &}quot;Contract" Wikipedia" retrieved on 22nd December 2014.

^{121 &}quot;The Law of Contract ActCap 345 of the R.E 2002, section 2" "Government of Tanzania" retrieved on 22nd December 2014.

^{122 &}quot;About us" "TPDC" retrieved on 22nd December 2014.

for petroleum exploration and development. $^{\rm 123}$ In fact, it is a common governing model in the oil and gas sector in many developing countries. $^{\rm 124}$

Optimal Benefits and Challenges inherent in PSAs

According to the International Monetary Fund's (IMF) Country Report No. 14/121 on the United Republic of Tanzania (URT) published in May 2014, the Tanzanian government could be looking at a peak of US\$ 5-6 billion revenue each year between 2029 and 2044 from oil and gas revenue. The report further notes that when such revenue is obtained and used properly, it could transform Tanzania's economy. Nevertheless, there are challenges associated with the nature of contracts/agreements entered with international oil and gas companies. As a matter of fact, there is a likelihood that if not properly negotiated Tanzanians' sky-high expectations from the burgeoning gas and oil sector could end up in vain. 126

Other challenges include lack of transparency, which is vital for the public to have trust and confidence in the fairness of such agreements. ¹²⁷ Furthermore, there is momentum building towards the immediate disclosure of the already signed PSAs. ¹²⁸ The push mainly comes from Parliament, where different committees have come up with several declarations demanding the disclosure and review of all contracts which have been entered by the Tanzanian government on behalf of the common good. ¹²⁹ A primary concern is that such contracts/ agreements are likely to avail minor profits to the government after a long-term waiting period for oil and gas companies to recoup costs. ¹³⁰

^{123 &}quot;Model Production Sharing Agreement" "TPDC" retrieved on 22nd December 2014.

^{124 &}quot;New oil and gas model for Tanzania should base on ownership" "Goxi" retrieved on 22nd December 2014.

^{125 &}quot;United Republic of Tanzania: Selected Issues" "IMF" retrieved on the 23rd December 2014.

^{126 &}quot;United Republic of Tanzania: Selected Issues" "IMF" retrieved on the 23rd December 2014.

^{127 &}quot;United Republic of Tanzania: Selected Issues" "IMF" retrieved on the 23rd December 2014.

^{128 &}quot;Maoni ya Kamati" "Parliament of Tanzania" retrieved on 23rd December2014.

^{129 &}quot;New oil and gas model for Tanzania should base on ownership" "Goxi" retrieved on 22nd December 2014.

^{130 &}quot;New oil and gas model for Tanzania should base on ownership" "Goxi" retrieved on 22nd December 2014.

3.5 Model Production Sharing Agreement of Tanzania

Background

Tanzania has been involved in the extractive industry explorations, development and production of natural resources for years.¹³¹ The Petroleum (Exploration and Production) Act of 1980 vests ownership of petroleum resources and control of these resources in the Tanzanian government and the Tanzania Petroleum Development Corporation (TPDC). The Act permits the TPDC, on behalf of the Tanzanian government, to enter into a Production Sharing Agreement (PSA) with an exploration and production company.¹³²

Model PSA 2013

Previous explorations were carried out by the government. Tanzania's PSA serves as the basic document for negotiations between foreign oil companies, the government and TPDC. It details terms under which exploration and production can take place.

Each PSA can cover more than one exploration licence. Meanwhile exploration is meant to take place up to 11 years during which the licensed company may freely assign its rights and obligations to an affiliate. The current MPSA of 2013 has been amended from the MPSA of 2004 and MPSA of 2008. The government of Tanzania and the TPDC has to-date concluded around 25 PSAs with 18 companies seeking to carry out exploration both offshore and onshore.

Highlights of MPSA (2013)

Under a Production Sharing Agreement, a provision is made for the Exploration and Production Company to recover its costs and then share 'profit oil' and 'profit gas' with TPDC, but the MPSA of 2013 seeks to secure greater short and long-term fiscal benefits for the state. 133

^{131 &}quot;Tanzania Oil and Gas Status and Trend" "Publish What You Pay" retrieved on 27th October 2014.

^{132 &}quot;The Oil and Gas Law Review", "Mkono", retrieved on 1st November 2014

^{133 &}quot;New Production Sharing Agreement for Tanzania" "Ashurst" retrieved on 6th November 2014.

The Model PSA of 2013 retained much of the provisions contained in the MPSA of 2008, such as minimum state participation of 25 percent, additional profits tax, and government royalty.¹³⁴ It offers incentives for deep water exploration whilst increasing revenue from oil and gas activities by tightening the fiscal terms present in the MPSA of 2008. In fact, the MPSA of 2013 strengthens the influence of TPDC in oil and gas activities. The MPSA of 2013 enhances the obligations in respect to training and development of local staff, including increasing the annual training expenditure requirement from US\$ 150,000 under the MPSA of 2008 to a minimum of US\$ 500,000.135 The MPSA of 2013 stipulates that the Contractor will be subject to taxes on income in accordance with the law. The new levy applies to capital gains on a transfer of interest. The agreement also sets a royalty rate of 12.5 percent of the total oil or gas production for onshore or shallow operations and a 7.5 percent royalty rate for offshore production. It is allocated out of production before the application of the production sharing formula.¹³⁶ The MPSA of 2013 leaves open how much oil or gas would be diverted to domestic use, and there has been a debate on how much of the nation's hydrocarbon reserves should be used locally and how much can be exported. 137

Statoil 2012 Addendum of its 2007 PSA

There has been continued secrecy around PSAs signed between Exploration and Production Companies and the government through TPDC. ¹³⁸ As a result, there have been calls from the public, Members of Parliament, civil societies, the mass media, etc., to disclose oil and gas contracts between TPDC and foreign investors. ¹³⁹ Recent debates have raised fears that the government either lacks the capacity or will to negotiate deals with investors that protect the interests of the Tanzanian public. PSA between TPDC and Statoil revealed contract terms that are significantly less favourable to the government than

^{134 &}quot;Tanzania outlines new oil and gas production terms" "Reuters" retrieved on 6th November 2014 .

^{135 &}quot;Tanzania LNG on backburner amid constitution review" "Zawya" retrieved on 6th November 2014.

^{136 &}quot;Tanzania outlines new oil and gas production terms" "Reuters" retrieved on 6th November 2014.

^{137 &}quot;The Tanzanian Model Production Sharing Agreement 2013: A change of pace?" "Deloitte" retrieved on 6th November 2014.

^{138 &}quot;Tanzania changes the terms of its oil and gas contracts" "The East African" retrieved on 2nd November 2014.

^{139 &}quot;Pressure mounts on government to disclose details of deals with investors" "The Citizen" retrieved on 6th November 2014.

had been expected in comparison to the MPSA of 2013 and an IMF analysis. ¹⁴⁰ Potentially at stake is a lot of revenue that could boost development in Tanzania. ¹⁴¹ Efforts to disclose petroleum contracts systematically are needed for companies to commit to transparency, manage expectations and guard against uncalled-for assumptions. ¹⁴²

3.6 Local Content Policy (LCP) Tanzania

Despite the presence of bountiful minerals and breakthroughs in oil and gas explorations and investments, less economic growth and more impoverished local communities have been hallmarks of many resource-rich African states. To ensure that revenues trickle down, particularly to avoid the so-called 'natural resource curse', efforts to have a Local Content Policy (LCP) in the emerging oil and gas industry of countries such as Tanzania are gaining momentum. Indeed, Tanzania published its draft LCP in April, 2014. 143

Definition

There are several definitions of local content. The Local Content Policy of Tanzania for Oil and Gas Industry (2014) defines local content as "the added value brought to the country in the activities of the oil and gas industry in the United Republic of Tanzania through the participation and development of local Tanzanians and local businesses [particularly] through national labour, technology, goods, services, capital and research capability." The policy further states that the participation and involvement of local businesses may be implemented through "workforce development, employment and training of local workforce and investments in supplier development through developing and procuring supplies and services locally." 145

^{140 &}quot;Leaked agreement shows Tanzania may not get a good deal for gas" "African Arguments" retrieved on 5th November 2014.

^{141 &}quot;Tanzania to lose up to US\$1b under StatOil PSA: Open these Oil and Gas Contracts" "Tanzania Today" retrieved on 6th November 2014.

^{142 &}quot;Tanzania and Statoil: What Does the Leaked Agreement Mean for Citizens?" "Natural Resource Governance Institute" retrieved on 5th November 2014.

^{143 &}quot;Formulation of local content policy on oil and gas gaining momentum" "CTI" retrieved 27 December 2014.

^{144 &}quot;Local content policy of Tanzania for oil and gas", "Ministry of Energy and Minerals" retrieved 27 December 2014.

^{145 &}quot;Local content policy of Tanzania for oil and gas" "Ministry of Energy and Minerals" retrieved 27 December 2014.

Generally, within the oil and gas industry local content is recognised as an intervention by a national government to ensure that the majority of the goods and services required at each stage of the oil and gas value chain are locally supplied.¹⁴⁶

Tanzania Local Content Policy Framework

Policy Aims

The draft LCP stipulates three main issues as central to the realisation of the local content benefits to Tanzanians: 147

- Devising strategies for the Local Content implementation with a view to developing a skilled, knowledgeable and sustainable local labour force;
- Developing appropriate strategies to foster the transfer of technology and knowledge, in addition to investing in research and development in the oil and gas industry; and
- Creating a mechanism for enabling Tanzanians and their businesses to utilise effectively opportunities to manage, supply goods, services and labour in the oil and gas industry.

To realise these aims, the policy, among others, expects government entities and companies to work together to "support the development of adequate local skills that are necessary to fulfill the strategic and operational objectives of the oil and gas sector." ¹⁴⁸

Key Focus Areas

According to the policy, there are five key focus areas: 149

- Capacity-building and technology transfer;
- Participation of Tanzanians and Tanzanian-owned entities;
- Procurement and usage of locally-produced goods and services;

^{146 &}quot;Understanding Local Content Policies in Africa's Petroleum Sector" "andrewskurth.com" retrieved 27 December 2014.

^{147 &}quot;Local content policy of Tanzania for oil and gas" "Ministry of Energy and Minerals" retrieved 27 December 2014.

^{148 &}quot;Local content policy of Tanzania for oil and gas" "Ministry of Energy and Minerals" retrieved 27 December 2014.

^{149 &}quot;Local content policy of Tanzania for oil and gas" "Ministry of Energy and Minerals" retrieved 27 December 2014.

- Fabrication and manufacturing in-country; and
- Socio-economic responsibilities.

Policy Objectives

The policy's main objective is to provide the necessary guidelines to engender maximum engagement of local content and involvement of Tanzanians in the development of the oil and gas industry to ensure Tanzanians optimally benefit from such investments. The specific objectives are as follows: 150

- To develop Tanzania's local businesses to become globally competitive through the empowerment of local suppliers to meet the needs of the oil and gas industry;
- To transfer appropriate technology to Tanzania for managing and operating the oil and gas industry;
- To enable local training institutions to provide relevant and appropriate training for the oil and gas industry;
- To maximise the participation of skilled and unskilled Tanzanians in the oil and gas supply chain and value chain activities;
- To have local goods and services procured by operators in accordance with terms and conditions of their operating licences; and
- To support gender-related activities in the oil and gas industry and addressing HIV & AIDS and other infectious diseases.

Under the Petroleum Act of 1980, applications for exploration or development licences must include proposals regarding the training and employment of Tanzanians.¹⁵¹ Moreover, the National Energy Policy of 2003 addresses issues pertaining to local content related policies in oil and gas sub-sector. Broad emphasis is placed on enhancing the local content. What is missing is detailing the level of participation of Tanzanians and Tanzanian-owned companies in these oil and gas deals. The local content provisions are stipulated under Article 20 and 21 of the Model Production Sharing Agreement (MPSA) of 2013 and are periodically reviewed to ensure they are in

^{150 &}quot;Local content policy of Tanzania for oil and gas" "Ministry of Energy and Minerals" retrieved 27 December 2014.

^{151 &}quot;Tanzania oil and gas" "Freshfields Bruckhaus Deringer" retrieved 27 December 2014.

sync with developments in the industry. 152 The MPSA of 2013 contains the latest local content requirements, but so far they have yet to be adopted into any effective contract. 153

Legal framework and Implementation

For the implementation of the LCP, the proposed legislation (Local Content, Natural Gas and Natural Gas Revenue Management) need to be enacted and the existing legislation (Income Tax Act and EWURA Act) need some amendments. The Minister for Energy and Minerals is required to consult with the relevant government agencies to propose fiscal incentives to assist foreign companies to develop the technological capacity and the skills of citizens and local Tanzanian companies to establish factories and production units.¹⁵⁴

The draft LCP envisages a Petroleum Regulatory Authority and an independent National Local Content Committee which will oversee its full implementation. Generally, the TPDC has an obligation of monitoring compliance with the PSA Local Content provisions on behalf of the Ministry of Energy and Minerals in accordance with the Petroleum (Exploration and Production) Act of 1980.

Institutional Framework

The policy recognises the following institutions as key players in the implementation of the policy: the Central Government, Local Government Authorities, National Oil and Gas Company, Regulatory Authority, the Bank of Tanzania, Private Sector, Academic and Research Institutions, Media, Civil Societies and Communities. ¹⁵⁷ Each player is assigned specific roles.

^{152 &}quot;Model Production Sharing Agreement" "TPDC" retrieved 27 December 2014.

^{153 &}quot;Local content policy of Tanzania for oil and gas" "Ministry of Energy and Minerals" retrieved 27 December 2014.

^{154 &}quot;Draft local content policy for the oil & gas industry in Tanzania" "Lexology" retrieved 27 December 2014.

^{155 &}quot;Tanzania Publishes First Draft of Long-Awaited Local Content Policy" "King & Spalding" retrieved 27 December 2014.

^{156 &}quot;Local content policy of Tanzania for oil and gas" "Ministry of Energy and Minerals" retrieved 27 December 2014.

^{157 &}quot;Local content policy of Tanzania for oil and gas" "Ministry of Energy and Minerals" retrieved 27 December 2014.

National Local Content Committee

The policy introduces a national committee whose role shall be to co-ordinate and oversee the full implementation of the policy. Specifically, the policy states that the committee shall: "Supervise, co-ordinate and monitor the implementation of the policy in liaison with sector operators and institutions; appraise, evaluate and endorse for approval the local content plans (feasible Business Plan, Capital Plan, Procurement Plan, Imports Plan, Employment and succession Plan and Capacity Building Plan), and reports submitted by the operators, as well as coordinate with the private sector to enable Tanzanians to take advantage of the available opportunities." The Committee shall be under the chairmanship of the Ministry of Energy and Minerals and will be constituted by:

- The Ministry of Trade and Industry
- The Attorney General
- The Ministry of Finance
- The Ministry of Labour and Employment
- The President's Office Policy Reform Unit
- The Prime Minister's Office (PMO)
- The Tanzania Procurement Authority
- The Tanzania Revenue Authority
- The Tanzania Investment Centre
- The Ministry of Home Affairs Immigration
- The Tanzania Private Sector Foundation
- The Tanzania Chamber of Commerce, Industry& Agriculture (TCCIA), and
- Two Representatives from the Civil Society¹⁵⁸

^{158 &}quot;Local content policy of Tanzania for oil and gas" "Ministry of Energy and Minerals" retrieved 27 December 2014.

3.7 Tanzania Oil and Gas Revenue Management Act of 2015

The Act, which was signed into law on 4th August 2015, applies to both Tanzania Mainland and Zanzibar as far as the management of oil and gas revenues derived from exploration, development and production of oil and gas activities are concerned.¹⁵⁹

What constitute oil and gas revenues?

According to the Act, "oil and gas revenues" include "royalty in cash payable by a licensed producer or its subsidiaries or a company under a Production Sharing Agreement; government profit share; taxes payable by licensed upstream, midstream and downstream operators; government participating interest; additional oil and gas entitlements and additional profit tax; dividends from the National Oil Company for Government's equity interest; returns on investment income derived from the Fund; signature bonus, training fees and surface rentals paid by licensed producers; or any other revenue determined by the Minister to constitute gas revenue, derived from upstream, midstream and downstream operations." ¹⁶⁰

Oil and Gas Fund

The Act establishes the Oil and Gas Fund. The Act notes that the Fund shall consist of two types of accounts, namely the Revenue Holding Account and the Revenue Saving Account. The Fund's objectives are fourfold:

- To ensure that fiscal and macroeconomic stability is maintained
- To ensure that the financing of investment in oil and gas is guaranteed
- To ensure that socio-economic development is enhanced, and
- To ensure that inter-generational resource is safeguarded. 161

^{159 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

^{160 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

^{161 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

The Oil and Gas Fund shall derive its sources of revenues from royalties; government profit share; dividends on government participation in oil and gas operations, corporate income tax on exploration, production and development of oil and gas resources, and revenues accrued from investment of the Fund. To ensure proper use of the Fund's money, the Act imposes restriction on the use of Fund's revenues, stipulating as it does that the money deposited in the Fund shall not be used for:

- Providing credit to the Government, public enterprises, private sector entities or any other person or entity;
- As collateral or guarantees, commitments or other liabilities of any other entity; and
- Rent seeking or be the subject of corrupt practices, embezzlement or theft.¹⁶²

Management of the Oil and Gas Fund

In relation to the management of the Oil and Gas Fund, the Act stipulates that the Bank of Tanzania (BoT) shall open accounts of the Fund, act as an agent of the Tanzania Government in carrying out on daily basis investment strategies and operational guideline, set and implement benchmarks and risk limits for the investment strategies as well as report the Fund's performance to the Minister.¹⁶³

Collection and Auditing of Oil and Gas Revenues

Section 6 of the Act empowers the Tanzania Revenue Authority (TRA), National Oil Company, and TPDC to collect the oil and gas revenues due to the Tanzania Government. The Act stipulates that TRA will be responsible for collecting oil and gas revenues derived from the "taxes and levies" whereas the TPDC, as the National Oil Company, will be collecting the "non-tax oil and gas revenues." To enhance the development of the oil and gas sub-sector, the TPDC shall retain "surface rentals or annual block fees, signature bonuses and training fees."

^{162 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

^{163 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

^{164 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

Portfolio Investment Advisory Board

A special "Portfolio Investment Advisory Board" established under this Act is charged with the responsibility to "advise the Minister on portfolio investment strategy of the Revenue Saving Account of the Fund and to report periodically to the Minister responsible for finance on the Governance and overall performance of the Revenue Saving Account of the Fund." The Board shall be constituted by five persons endowed with knowledge, skills and experiences in financial investment, portfolio management or investment law, and shall be appointed by the President. The Bank of Tanzania shall serve as the Secretariat of the Board. 165

Fiscal rules

The Act stipulates the fiscal operations whereby all "designated revenue" are deposited into Revenue Holding Account. It notes that in any financial year, at most an amount equal to 3% of the Gross Domestic Product (GDP) is transferred to the Consolidated Fund for budgetary use, and at least 60% of such transfer is dedicated to funding strategic development expenditure including human capital development, particularly in the area of science and technology." It further states that "any amount of money in Revenue Holding Account which is in excess of 3% of the GDP is automatically transferred to the Revenue Saving Account." ¹⁶⁶

The Act recognises that there are some situations when revenues fall, and when that happens and especially when the designated oil and gas revenue falls short of 3% of the GDP in any fiscal year, "money sufficient to offset the shortfall in the budget should be drawn from the Revenue Saving Account and deposited [in]to the Consolidated Fund, and in the event Revenue Saving Account has no sufficient money to offset the shortfall, [the Tanzania] Government may borrow to offset the shortfall." ¹⁶⁷

^{165 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

^{166 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

^{167 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

Revenues to Local Government Authorities (LGAs)

Apart from the revenues accrued to the central government, the Act stipulates that in areas where oil and gas activities are undertaken, the Local Government Authorities (LGAs) shall also receive revenue from service levy of the oil and gas with approval from the National Assembly. Regarding the fiscal rules on expenditure and saving, the Act notes that the rules will be established by the Minister for Finance in consultation with Minister for Local Government. ¹⁶⁸

Transparency and accountability of revenues

Transparency and accountability is central to the management of oil and gas revenue. In this regard, Section 18 of the Act states that both collection and disbursement of the revenues from the Fund shall be made in a transparent and accountable manner. The Act makes it mandatory for the records of oil and gas revenues and expenditure to be published by the Minister of Finance in the Gazette, adding that the "information required to be made public shall also be published online on the website of the Government and Ministry of Finance." To ensure proper oversight of the oil and gas revenues and expenditure, the Parliament shall oversee the records of the same. The Bank of Tanzania (BoT) shall "report on the operational performance of the Fund and publish an audited report in the official Gazette and website of the Bank." ¹⁶⁹

Stakeholders' Views

To realise the targets indicated in the Act, it is critical to ensure that the "adopted fiscal rules are implemented such as the recurrent expenditure growth being limited to nominal GDP growth and if revenues from oil and gas are greater than 3% of GDP, the funds should be kept in the Revenue Saving Account (RSA) of the Oil and Gas Fund and if the revenues fall below 3% of GDP the funds should be transferred to the budget (Budget Consolidated Fund)." This was said by Mr. Mark Evans, an Africa Economic Analyst at Natural Resource Governance Institute (NRGI), who was commenting during the Policy Forum breakfast debate entitled "The Oil and Gas Revenue"

^{168 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

^{169 &}quot;The Oil and Gas Revenues Management Act, 2015" "Government of Tanzania" retrieved on 27th August 2015.

Management Act: What does it mean for government spending?" held on 31 July 2015 held at the British Council Auditorium. Mr. Evans said that the government should ensure cautious spending and saving of oil and gas revenues whereby 60% of spending should be on strategic development expenditure as indicated in the Act, adding that transparency and accountability provisions must be complied with. 170

Tanzania's CEOs under the Chief Executive Officers Round Table (CEORT), which brings together over 100 companies doing business in Tanzania, welcomed the Oil and Gas Revenue Management Act of 2015 as a right step to guide the promising industry. The CEORT Chairperson, Mr. Ali Mufuruki, urged stakeholders first to go through the law thoroughly before criticising it. He said that members of the round-table are keen to continue engaging with the government to ensure challenges inherent in the new law are addressed. On his part, BG's President and Asset General Manager for East Africa, Mr. Derek Hudson, said it was highly significant to adopt the legislation since the oil and gas industry is still new in the country.¹⁷¹

3.8 Tanzania Natural Gas Revenue Fund

The Natural Gas Revenue Fund (NGRF) is the proposed Sovereign Wealth Fund of Tanzania. According to Tanzanian President Jakaya Kikwete, the government was formulating legislation for the fund's establishment whose bill would be tabled in parliament once completed.¹⁷² The NGRF will be set up for the management of revenues accruing from the country's emerging gas industry.¹⁷³ With the creation of the NGRF Tanzania will follow the example of more than 20 countries which by August 2013 had inaugurated different models of Sovereign Wealth Funds governing revenue from their extractive industries.¹⁷⁴

^{170 &}quot;The Oil and Gas Revenue Management Act: What does it mean for government spending?" "Policy Forum" retrieved on 25th August 2015.

^{171 &}quot;CEOs Give Thumbs Up To New Oil & Gas Laws In Tanzania" "exchange. co.tz" retrieved on 27th August 2015.

^{172 &}quot;Sovereign Wealth Fund comes abroad in October" Daily News, 21 April 2014.

^{173 &}quot;Tanzania plans sovereign wealth fund for gas finds" Reuters, 2 August 2012

^{174 &}quot;Fund Rankings" Sovereign Wealth Fund Institute, retrieved 10 September 2014.

Background

The National Natural Gas Policy of Tanzania prepared by the Tanzanian Ministry of Energy and Minerals and endorsed by the Tanzanian cabinet in October 2013, establishes the NGRF.¹⁷⁵ The ministry's policy statement stipulates that the NGRF will be set up to "ensure transparency and accountability over collection, allocation, expenditure and management of all natural gas revenues." ¹⁷⁶ It further states that "clear guidelines shall be developed transparently or through national dialogue on the optimum short-term and long-term use of the fund." ¹⁷⁷ In addition, it emphasises that the management of the natural gas revenue spending shall be in line with national development plans and strategies. ¹⁷⁸

The NGRF is expected to hold revenue extracted from the gas industry in trust for investments in other sectors of the economy, as well as finance socio-economic development and realize savings for future generations. ¹⁷⁹ According to President Kikwete, once the fund is established, there will be annual legislative debates about the percentage of the NGRF's revenue to be channelled into the national budget. ¹⁸⁰

Administration

The NGRF will be managed and administered by the Bank of Tanzania.¹⁸¹ Additionally, the NGRF will be audited by a special unit of the Tanzanian government expected to be established in 2015 in order to monitor natural resource revenues.¹⁸²

^{176 &}quot;The National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 10 September 2014.

^{177 &}quot;The National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 10 September 2014.

^{178 &}quot;The National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 10 September 2014.

^{179 &}quot;Tanzania to set up fund from gas to finance development" The East African, 7 December 2013.

^{180 &}quot;Sovereign Wealth Fund comes abroad in October" Daily News, 21 April 2014.

^{181 &}quot;BoT to manage natural gas revenue: govt" The Citizen, 26 November 2013

^{182 &}quot;Tanzania sets up special unit to scrutinise gas revenues and wealth fund" Thomson Reuters Foundation, 14 August 2014.

3.9 Sovereign Wealth Funds

Overview

A Sovereign Wealth Fund (SWF) is a state-owned investment fund or entity that is commonly established using balance of payments surpluses, official foreign currency operations, the proceeds of privatizations, governmental transfer payments, fiscal surpluses, and/or receipts resulting from resource exports. 183

SWFs are made up of the revenues earned from commodities such as oil and gas, or non-commodities, usually through the transfer of assets from official foreign exchange reserves. Commodity revenues are created through the export of commodities either taxed or owned by the government. As oil and gas prices have risen, particularly since 2003, the number of SWFs that have been created has also risen. Is In 2012, commodity financed funds totalled more than US\$ 2.5 trillion.

SWFs are created for a number of reasons. According to the Sovereign Wealth Fund Institute, the primary reasons are to:¹⁸⁶

- Protect & stabilize the budget and economy from excess volatility in revenues/exports
- Diversify from non-renewable commodity exports
- Earn greater returns than on foreign exchange reserves
- Assist monetary authorities dissipate unwanted liquidity
- Increase savings for future generations
- Fund social and economical development
- $\,\blacksquare\,$ Sustainable long term capital growth for target countries
- Political strategy

^{183 &}quot;What is a SWF?" Sovereign Wealth Fund Institute, retrieved 15 August 2012.

^{184 &}quot;What is a SWF?" Sovereign Wealth Fund Institute, retrieved 15 August 2012.

^{185 &}quot;SWF" Investopedia, retrieved 15 August 2012.

^{186 &}quot;What is a SWF?" Sovereign Wealth Fund Institute, retrieved 15 August 2012.

Commodity Based SWFs

Commodity based SWFs play a role in combatting the 'Resource-Curse'. Countries increasingly want to create funds to better utilise revenues from non-renewable resources given oilfield depletion. According to the Central Banking Journal, Ghana, for example, discovered oil in commercial quantities in 2010 and has since tried to structure its SWF by taking into account the failures and successes of other African states. The Ghana Petroleum Fund was intended to adopt policies that utilize the potential of natural resources, while avoiding the resourcecurse experienced by many African and other states. 187 The Ghanaian government has full ownership over the fund but an investment advisory board helps by providing published recommendations, increasing transparency. The Bank of Ghana is the manager of the funds. The main purpose of the SWF was to invest the oil and gas revenues into fixed-income instruments and the Bank of Ghana's experience in managing exchange reserves by foreign investment in securities made it an appropriate choice for this role. 188 To ensure that Ghana will avoid the resource-curse, it 'has taken the important initial steps to ensure effective management of its oil revenues by ensuring transparent and stable legal and governance frameworks.'

Impact of Financial Crisis

According to a leaked US diplomatic cable from 2009, in the aftermath of the global financial crisis, SWFs were increasingly inclined to have liquid assets. This is because the crisis eroded the market value of many SWF holdings. However, the funds of certain countries were less affected by the crisis. For example, in spite of the global financial crisis, Azerbaijan's strategic currency reserves, held by the State Oil Fund of Azerbaijan (SOFAZ) and the Central Bank, increased to US\$ 19.1 billion during the year, exceeding the 1 January 2009 projection of US\$ 18.55 billion. 190

SWFs around the world

The following table shows the largest oil funds globally, by size of assets, according to the Sovereign Wealth Fund Institute. The table includes a rating for each fund according to the Linaburg-Maduell

^{187 &}quot;Sovereign Wealth Study" Central Banking Journal, 16 May 2012.

^{188 &}quot;Sovereign Wealth Study" Central Banking Journal, 16 May 2012.

^{189 &}quot;London-based Experts Assess Sovereign Wealth Fund Activities" WikiLeaks, 25 June 2009.

^{190 &}quot;Azerbaijan - Investment Climate Statement 2010" WikiLeaks, 25 January 2010.

Index, a series of indicators, whereby the higher the number (maximum 10), the more transparent the fund is considered to be. 191

Country	Name of fund	Assets (US\$ billion)	Inception	Linaburg- Maduell Transparency Index
Norway	Government Pension Fund	882	1990	10
UAE	Abu Dhabi Investment Authority	773	1976	6
Saudi Arabia	SAMA Foreign Holdings	757	n/a	4
Kuwait	Kuwait Investment Authority	548	1953	6
Qatar	Qatar Investment Authority	256	2005	5
UAE - Dubai	Abu Dhabi Investment Council	90	2007	n/a
Russia	Reserve Fund	88.9	2008	5
Russia	National Welfare Fund	79.9	2008	5
Kazakhstan	Kazakhstan National Fund	77	2000	2
UAE - Abu Dhabi	International Petroleum Investment Company	68.4	1984	9
UAE - Abu Dhabi	Mubadala Development Company	66.3	2002	10
Libya	Libyan Investment Authority	66	2006	1
Iran	National Development Fund of Iran	62	2011	5
US - Alaska	Alaska Permanent Fund	53,9	1976	10

^{191 &}quot;Linaburg-Maduell Transparency Index" SWF Institute, retrieved 14 March 2013.

Algeria	Revenue Regulation Fund	50	2000	1
Malaysia	Khazanah Nasional	41.6	1993	9
Brunei	Brunei Investment Agency	40	1983	1
US - Texas	Texas Permanent School Fund	37.7	1854	9
Azerbaijan	State Oil Fund	37.3	1999	10

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3.10 Tanzania Extractive Industries (Transparency and Accountability) Act of 2015

Natural resources belong to the country's current and future generation. To ensure that these resources benefit the current generation and posterity, there is an urgent need for all major stakeholders—the Government and companies—to embrace and foster transparency and accountability. Indeed, the Extractive Industries (Transparency and Accountability) Act was passed by the government in August 2015 to make transparency and accountability a mainstay in the extractive industry. The Act, which applies only to Tanzania Mainland, stipulates various transparency and accountability measures including, among others, the establishment of transparency and accountability committee; nomination committee; obligations of extractive companies and statutory recipients; obligation to publish information; appointment and the role of reconciler; discrepancies and role of controller and auditor-general; and false information, etc. 193

Extractive Industries (Transparency and Accountability) Committee

The Act establishes a multi-stakeholder entity composing government, companies and civil societies to serve as an oversight body for promoting and enhancing transparency and accountability in the extractive industry. This committee shall be constituted by

^{192 &}quot;Fund Rankings" SWF Institute, retrieved 14 March 2013.

^{193 &}quot;The Tanzania Extractive Industries (Transparency and Accountability) Act of 2015" "Government of Tanzania" retrieved 12th August 2015.

a Chairperson and not more than 15 members. The chairperson shall be appointed by the President whereas the members shall be appointed by the Minister for Energy and Minerals. The committee's composition is made up of five persons from Government entities, one of whom shall be the Attorney General or his representative; five persons from extractive companies; and the remaining five persons from civil society organisations.¹⁹⁴

Nomination Committee

The Act establishes the Nomination Committee which is made up of the Permanent Secretary for the Ministry of Energy and Minerals (Chairperson); the Permanent Secretary for the Ministry of Finance; the Permanent Secretary of the Ministry responsible for public service; the Permanent Secretary of the Ministry responsible for labour; and two experts in the extractive industry. The nomination committee shall be responsible for nominating the Chairperson of the Tanzania Extractive Industries (Transparency and Accountability) Committee; or the Executive Secretary of the Committee who will be approved by appointing authorities—the President or the Minister.¹⁹⁵

Obligations of extractive companies and statutory recipients

To ensure maximum obligation for payment and revenue disclosure, the Extractive Industries (Transparency and Accountability) Committee shall in each fiscal year set out a threshold for the purpose of discovering companies that are eligible for reconciliation on payments made and revenues received by the Tanzania Government. The qualified companies shall therefore submit to the committee information and data including all forms of taxes and charges made to the Government as per the prescribed regulations. On the other hand, statutory recipients (government entities) that receive payments from companies shall also submit to the committee information and data on revenue receipts. 196

^{194 &}quot;The Tanzania Extractive Industries (Transparency and Accountability) Act of 2015" "Government of Tanzania" retrieved 12th August 2015.

^{195 &}quot;The Tanzania Extractive Industries (Transparency and Accountability) Act of 2015" "Government of Tanzania" retrieved 12th August 2015.

^{196 &}quot;The Tanzania Extractive Industries (Transparency and Accountability) Act of 2015" "Government of Tanzania" retrieved 12th August 2015.

Information on local content, corporate social responsibility and capital expenditures

Extractive companies operating in Tanzania are mandated to submit to the committee annual reports with information on local content and corporate social responsibility. Additionally, extractive companies are obliged to also submit capital expenditures at every investment stage. Failure to furnish the authorities with this information—local content, corporate social responsibility and capital expenditure—amounts to committing an offence.¹⁹⁷

Obligation to publish information

To ensure effective disclosure and thereby enhancing transparency and accountability in extractive industries, the Minister shall publish:

- "In the website or through a media which is widely accessible all concessions, contracts and licenses relating to extractive industry companies;
- Individual names and shareholders who own interests in the extractive industry companies;
- Implementation of Environmental Management Plans of the extractive industry companies; and
- Implementation reports referred to under section 17(5) [a report from an Independent Reconciler]."198

Independent Reconciler

Payment made by extractive companies and revenues received by statutory entities shall be reconciled by an independent entity known as an "independent reconciler." The reconciler, who is engaged by the committee, is charged with the responsibility of reconciling and verifying payments made by extractive industry companies and revenues received by the Tanzania Government. The reconciliation and verification include data on investment expenditure, production figures, export and any other matters related to the activities of the extractive industry in a particular reporting year. 199

^{197 &}quot;The Tanzania Extractive Industries (Transparency and Accountability) Act of 2015" "Government of Tanzania" retrieved 12th August 2015

^{198 &}quot;The Tanzania Extractive Industries (Transparency and Accountability) Act of 2015" "Government of Tanzania" retrieved 12th August 2015.

^{199 &}quot;The Tanzania Extractive Industries (Transparency and Accountability) Act of 2015" "Government of Tanzania" retrieved 12th August 2015.

Role of the Controller and Auditor General (CAG)

There are times when a reconciliation report identifies material discrepancy between payments made by companies and revenues received by the government. In such circumstances, the Act stipulates that the committee shall within 14 days upon receipt submit such report to the office of the Controller and Auditor General (CAG) for further investigation, who will then prepare the audit report and submit it to the Committee for the Tanzania Extractive Industries (Transparency and Accountability). The Committee would then forward the same to the Minister for further action. According to the Act, the "Minister shall, as soon as may be practicable and not later than twelve months after the close of the financial year, lay before the National Assembly a report on the implementation of activities under this Act."

Submission of false information

Article 24 of the Act states that whoever provides false information or report concerning data on investment expenditure, production figures, exports, etc, or fails to produce a statement of account as mandated by this Act, and obstruct the committee or any authorised entity/person from executing its rightful duties, commits an offence and the penalty is a fine of not less than one hundred million Tanzanian shillings upon conviction.²⁰¹

Disclosure requirements on previous MDAs and PSAs

Article 27 (1) subjects all the existing Mineral Development Agreements (MDAs) and Production Sharing Agreements (PSAs) or any other agreements signed to disclosure requirement under this Act, with the exception of the information regarded as confidential by the Committee for the Tanzania Extractive Industries (Transparency and Accountability).²⁰²

^{201 &}quot;The Tanzania Extractive Industries (Transparency and Accountability) Act of 2015" "Government of Tanzania" retrieved 12th August 2015.

^{202 &}quot;The Tanzania Extractive Industries (Transparency and Accountability) Act of 2015" "Government of Tanzania" retrieved 12th August 2015.

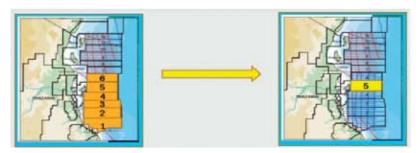
Stakeholders' comments

According to mtega.com, the requirement to disclose the content of the existing MDAs and PSAs is clearly a good step as this has not been done before. Additionally, it states that the disclosure requirements to be clearly stipulated in Act is "a big step forward, particularly as it goes beyond the requirements of the Extractive Industries Transparency Initiative (EITI) and Tanzania's OGP commitment to contract transparency in extractives."²⁰³ However, stakeholders were of the view that prior to formulating and laying of the Bill for debate, the Tanzania Government should have established first a special management committee on natural resources (oil, gas and mining) made up of different experts from all relevant ministries, civil societies/NGOs and collected public views and integrated them in drafting policies relating to management of each resources. To them, this would have ensured maximum participation of the citizens.²⁰⁴

3.11 The Licensing Rounds

The First Licensing Round (2001)

The first licensing round was announced in June 2000 and closed on 19th April 2001. It was conducted in London, UK.²⁰⁵ Six off-shore licensing blocks were auctioned for water depths of between 200 and 2000 metres but only one bid from Petrobras was received. Petrobras was awarded a PSA for Block 5.²⁰⁶



^{203 &}quot;Tanzania's draft extractive industries laws say a lot about transparency. Highlights and initial thoughts" "mtega.com", retrieved 20th July 2015.

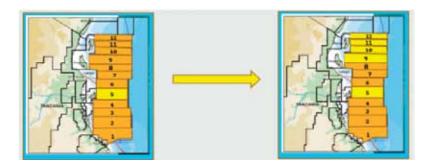
^{204 &}quot;Tanzania's New Regime On Oil And Gas Laws - Legal Analysis By Breakthrough Attorneys" "tanzaniainvest.com" retrieved 5th September 2015.

^{205 &}quot;Tanzania Deep Sea Licensing History" "TPDC" retrieved 02 December 2014.

The Second Licensing Round (2002)

The second licensing round was conducted in Houston, Texas, USA. It commenced on 3rd June 2001 and closed on 5th July 2002. ²⁰⁷ In the second licensing round, eleven off-shore blocks were offered for water depths of between 200 and 2000 metres, including one in shallow waters south of Zanzibar and six in deep waters off the Pemba and Zanzibar islands. The round covered a total of 114,123 sq km. ²⁰⁸ On the closing day, two separate bids were received from Shell International and Global Resources. Both companies had bid for the same blocks 9-12.

A technical committee comprising officials of the Tanzania Petroleum Development Corporation (TPDC) and the Tanzanian Ministry of Energy and Minerals found the bid by Global Resources to be incompetent as "it provided an inadequate work program, did not provide evidence of financial capability, and neither the experience in exploration in the deep-sea areas." According to the committee, only the bid by Shell met the basic requirement of the bidding instruction. Consequently, Blocks 9-12 were awarded to Shell International.²⁰⁹



The Third Licensing Round (2005)

The opening of the third round was announced in May 2004 and closed in May 2005.²¹⁰ The round took place in Denver, Colorado, USA

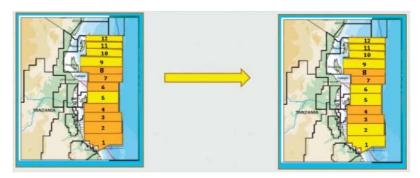
^{207 &}quot;Tanzania Deep Sea Licensing History" "TPDC" retrieved 01 December 2014.

^{208 &}quot;Three companies bid for deepwater oil exploration" "Energy- Pedia" retrieved 01 December 2014.

^{209 &}quot;Tanzania Licensing Rounds" "TPDC" retrieved 02 December 2014.

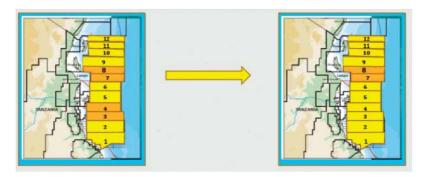
^{210 &}quot;Tanzania Deep Sea Licensing History" "TPDC" retrieved 01 December 2014.

and covered a total of 71,103 sq km.²¹¹ Seven licensing blocks were auctioned in water depths between 200 – 2000m and three blocks (1, 2 and 6) were awarded. Block 1 was awarded to Ophir Energy, Block 2 to Statoil and Block 6 to Petrobras.²¹²



Direct Award of Off-shore Blocks 3 and 4

In April 2006, the licensing blocks 3 and 4 were directly awarded to Ophir Energy by the Tanzania Government.²¹³



Limited Tendering for Blocks 7 and 8

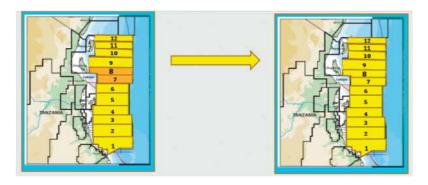
In July 2006, the Tanzania Government announced limited tendering for what were the two remaining blocks at that time. On 19 January

^{211 &}quot;Three companies bid for deepwater oil exploration" "Energy-Pedia", retrieved 01 December 2014.

^{212 &}quot;Tanzania Licensing Rounds" "TPDC" retrieved 02 December 2014.

^{213 &}quot;Tanzania Licensing Rounds" "TPDC" retrieved 02 December 2014.

2007, licensing Block 7 was awarded to Dominion Petroleum and Block 8 to Petrobras. ²¹⁴



The Fourth Licensing Round

The fourth licensing round was officially launched on 25 October 2013 during the 2nd Tanzanian Oil and Gas Conference and Exhibition in Dar es Salaam, Tanzania, after being delayed since September 2012, while awaiting the approval of the new National Natural Gas Policy. The licensing round closed on 15 May 2014.215 The round covered the on-shore North Lake Tanganyika block and seven off-shore blocks in waters of between 2,000m and 3,000m depth. The blocks vary in size from 2,545 km² to over 3,600 km² and lie east of and near areas which have already been found to be prospective. ²¹⁶ Two more blocks were reserved for the TPDC. The TPDC will be looking for strategic partners to explore the reserved blocks via a competitive process.²¹⁷ Out of the available blocks, four received bids: Block 2A was bid for by Mubadala Petroleum; Block 3A was bid for by China National Offshore Oil Corporation (CNOOC Ltd), and there was a joint bid by Statoil and ExxonMobil; Block 3B received a bid from Gazprom; and the North Lake Tanganyika block was bid for by Ras Al Khaimah Gas LLC (Rakgas). Mubadala Petroleum, Statoil, ExxonMobil and Rakgas already hold interests in Tanzania.²¹⁸ Four off-shore blocks, 4A, 4B, 5A and 5B, did not attract any bid. Britain's BG Group and Ophir

^{214 &}quot;TPDC awards blocks 7 and 8 to Dominion Petroleum and Petrobras", "Mbendi" retrieved 02 December 2014.

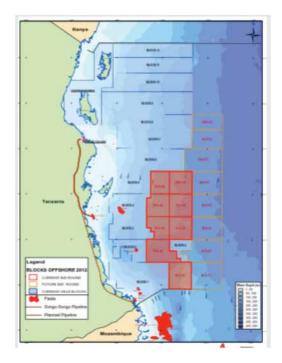
^{215 &}quot;News Licensing Rounds" "Deloitte" retrieved 02 December 2014.

^{216 &}quot;New offshore licensing round for Tanzania" "Geoexpro" retrieved 02 December 2014.

^{217 &}quot;News Licensing Rounds" "Deloitte" retrieved 02 December 2014.

^{218 &}quot;News Licensing Rounds" "Deloitte" retrieved 02 December 2014.

Energy, which have been at the forefront of exploration in Tanzania, did not. submit any bids for the blocks on offer.219 The submitted bid documents are being evaluated by the TPDC to ensure they comply with the terms and conditions set by the Tanzania Government. The announcement. of the bid winners is expected to immediately follow this process. Successful bidders will then be invited negotiate for Production Sharing (PSAs) Agreements



with the TPDC and the Tanzania Government.²²⁰

3.12 The Tanzania Oil and Gas Conference and Exhibition

The Tanzania Oil and Gas Conference and Exhibition (TOGaCE) is an annual convention that brings together stakeholders involved in the country's oil and gas sector. The idea of the conference was conceived in 2012 after huge amounts of natural gas had been discovered in the country. The main objectives of the exhibition are raising awareness on the potential of oil and gas in the development of Tanzania, benchmarking the local institutions, policy, legal and regulatory framework guiding the oil and gas sector, and availing a platform for more stakeholders to show interest in doing businesses

^{219 &}quot;Tanzania receives five bids for oil, gas blocks" "Reuters" retrieved 02 December 2014.

^{220 &}quot;News Licensing Rounds" "Deloitte" retrieved 02 December 2014.

in Tanzania. ²²¹ Additionally, the conference organisers provide space for companies and/or individuals to exhibit their products or services ²²²

1st Conference and Exhibition

The first TOGaCE was held in Dar es Salaam from 18th to 19th October 2012. It was jointly organised by the Ministry of Energy and Minerals (MEM), the Tanzania Petroleum Development Corporation (TPDC), the Energy and Water Utilities Regulatory Authority (EWURA), the University of Dar es Salaam (UDSM), and the Institution of Engineers Tanzania (IET). The conference's main objective was to raise awareness on the concepts of oil and gas amongst Tanzanian participants. It also highlighted the effectiveness of gas and oil in stimulating industrial and socio-economic development. The participants discussed the concepts that are adaptable to the context of Tanzania to speed up the growth of the oil and gas sector in the country.²²³

The main five issues presented at the conference were:

- Policy, legal and institutional framework related to the natural gas;
- Technology issues related to exploration, reservoir evaluation, drilling, transportation, processing and applications of natural gas;
- Capacity-building, including local content participation, infrastructure development, training, and research;
- Issues of safety, environmental pollution, environmental equity, monitoring, and remediation; and
- Awareness raising on the status of oil and gas industry, potentials and available opportunities.²²⁴

The challenges for the Tanzania oil and gas sector, as defined by the conference participants, were numerous. They include the need to engage in oil and gas studies; to increase the number of local experts in oil and gas; to further develop the infrastructure; and the need to invest in sustainable energy. The participants agreed on adopting the

 $^{222\ {\}rm "Exhibitions"}\ {\rm "Tanzanian}\ {\rm Oil}\ {\rm and}\ {\rm Gas}\ {\rm Conference"}\ {\rm retrieved}\ 13\ {\rm April}\ 2015.$

 $^{223\ {\}rm "Proceedings}\ 2012\ {\rm "Tanzanian}\ {\rm Oil}\ {\rm and}\ {\rm Gas}\ {\rm Conference}\ {\rm 'retrieved}\ 13$ April 2015.

^{224 &}quot;Proceedings 2012" "Tanzanian Oil and Gas Conference" retrieved 13 April 2015.

Norwegian Model—touted as one one of the most effective in tapping resources for the broader interests of the nation—on establishing oil and gas funds and to find local rather than imported solutions to national challenges in the oil and gas sector. The outcome of the conference was a fully developed Action Plan.²²⁵

2nd Conference and Exhibition

The Second TOGaCE took place in Dar es Salaam from 23rd to 24th October 2013. It was also jointly organised and co-hosted by the Department of Chemical and Mining Engineering of the University of Dar es Salaam, the IET, and the United Republic of Tanzania through the MEM, TPDC and EWURA.²²⁶ The conference brought together interested individuals from the Government, the private sector including oil/gas companies and the academia to deliberate on matters relevant to the development of the oil and gas industry and covered policies and practices, upstream, mid-stream and downstream activities and related issues.²²⁷

The following issues were discussed at the conference:

- Business, taxation and finance
- Developing and harnessing oil and gas potentials
- Sustainable exploitation and utilisation of oil and gas
- Capacity-building, and
- Challenges and prospects of oil and gas industry

A great deal of the discussion centred on how Tanzanians and their interests could be integrated effectively in all levels of the value chain. ²²⁸ A framework to ensure the facilitation of Tanzanian private sector to access the natural resources was suggested, especially in terms of knowledge transfer. ²²⁹

 $^{225\ {\}rm "Proceedings}\ 2012\ {\rm "Tanzanian}\ {\rm Oil}\ {\rm and}\ {\rm Gas}\ {\rm Conference}\ {\rm 'retrieved}\ 13$ April 2015.

^{226 &}quot;The Second Tanzania Oil and Gas Conference and Exhibitions", "University of Dar es Salaam" retrieved 13 April 2015.

^{228 &}quot;Dr. Mengi: Tanzanians can participate in gas economy" "The Guardian", retrieved 14 April 2015.

^{229 &}quot;Proceedings 2014, "Tanzanian Oil and Gas Conference" retrieved 14 April 2015.

3rd Conference and Exhibition

The Third TOGaCE took place in Dar es Salaam from 21st to 22nd October 2014. It was jointly organised by the same institutions. The conference was for the first time held in Kiswahili - the national language. This deliberate language choice was meant to also engage Tanzanians who do not understand English and, hence, make the deliberations more accessible to the ordinary Tanzanians. In continuation of the second conference, a Local Content Policy was pledged by the Deputy Minister of Energy and Minerals, Stephen Masele, in a bid to ensure that Tanzanians are engaged in the entire value chain and benefit from the oil and gas sector. 231

Mtwara Oil and Gas Business and Career Expo (MOGBE)

On November 14th and 15th 2014, the first Mtwara Oil and Gas Business and Career Expo was held. In addition to the TOGaCE, this forum seeks to serve as link between the value chain and the stakeholders in the oil and gas industry in Tanzania by empowering, providing career opportunities and building capacity among the local.²³²

3.13 The Tanzania Team of Negotiators for Oil and Natural Gas

Background

The exploration of oil and gas in Tanzania has been going on for more than 60 years now, with the Tanzania Petroleum Development Corporation (TPDC) mandated to, among other things, contract and engage in negotiation with IOCs. For years now, Tanzania Government officials have often come under attack and being criticised by the media, civil society and opposition politicians for their failure to negotiate deals in the extractive industry in the interests of the common good.

^{230 &}quot;Brochure" "Tanzanian Oil and Gas Conference" retrieved 09 April 2015.

^{231 &}quot;Oil, gas policy ready next year – minister" "The Guardian" retrieved 14 April 2015.

^{232 &}quot;M̄twara set for first oil and gas business expo this week" "The Guardian" retrieved 14 April 2015.

Government Negotiation Team

One of the challenges besetting young resource-rich countries such as Tanzania is the absence of a competent multidisciplinary team to negotiate gas and oil deals competently with IOCs. This realisation prompted the government in May 2015 to launch a team of negotiators for oil and natural gas.²³³ The negotiation team which was launched by the Chief Secretary of the United Republic of Tanzania (URT), Ambassador Ombeni Sefue, has 25 experts with different backgrounds, who have been drawn from: the Ministry of Energy and Minerals; Tanzania Revenue Authority (TRA); Ministry of Finance; Ministry of Labour, Employment and Youths; Attorney General's Chambers (AGC); Tanzania Electric Supply Company (TANESCO); Ministry of Industries and Trade; Tanzania Petroleum Development Corporation (TPDC); Planning Commission; State Mining Corporation (STAMICO); the Prime Minister's Office; the Bank of Tanzania (BoT); the University of Dar es Salaam (UDSM); and the National Environment Management Council (NEMC).²³⁴ Officiating at the launching of the team of negotiators during the capacity-building programme for the team in Zanzibar, the Chief Secretary noted that the programme would equip negotiators with the necessary negotiation skills and techniques for the betterment of the country: "It is my hope that this programme will help to equip participants [negotiators] with the requisite skills and tact to be good negotiators for the benefit of our nation, not only now but for generations to come."235

The Chief Secretary also urged the negotiation team to dedicate itself to learning, understanding, strategically thinking, managing, researching, exploring and, more importantly, negotiating well on behalf of Tanzanians to serve Tanzania's best interests of today and tomorrow for posterity.²³⁶ He also urged the team to review and understand the government's efforts as "a lot has been done in the development of policies, strategies and legislation; and all these have to be understood and factored into the training programme and negotiations," adding, "ideally, our negotiators need to prepare for a highly skilful bargaining exercise

^{233 &}quot;Government launches Team of Negotiators for Natural Gas & Oil" "Uongozi" retrieved 16 May 2015.

^{234 &}quot;Government launches Team of Negotiators for Natural Gas & Oil" "Uongozi" retrieved 16 May 2015.

^{235 &}quot;Government launches Team of Negotiators for Natural Gas & Oil" "Uongozi" retrieved 16 May 2015.

^{236 &}quot;Government launches Team of Negotiators for Natural Gas & Oil" "Uongozi" retrieved 16 May 2015.

aimed at striking a mutually acceptable balance between the interests of the Government, on the one hand, and the interests of the IOCs, on the other."²³⁷ The training programme was organised by UONGOZI Institute in collaboration with the US-based Columbia University's Centre for Sustainable Investment, and the International Senior Lawyers Project.²³⁸

3.14 Types of Oil Contracts

Several types of oil contracts are in use throughout the world: concessions, in which the contractor owns the oil in the ground; production sharing agreements (PSA), in which the contractor owns a share of oil once it is out of the ground; service contracts, in which the contractor receives a fee for extracting the oil from the ground (service contracts are often depicted as a subset of PSAs); and joint ventures (JVs), in which the state enters into partnership with one or more oil companies. The book "Oil Contracts: How to read and understand them" notes that it is rare to find any contract that fits cleanly into any one of these categories, however, and in reality most contracts combine some elements of each.²³⁹

All oil contracts must address two key issues, according to Revenue Watch Institute (RWI): how profits, often called "rents", are divided between the government and participating companies and how costs are to be treated. 240

Concessions

Concessions are the oldest form of a petroleum contract, having first been developed during the oil boom in the United States in the 1800s.²⁴¹ When they were introduced around the world, concessions were one-sided contracts favoring companies, according to Revenue Watch, when many of the resource-rich nations of today were dependencies, colonies, or protectorates of other states or empires.²⁴²

^{237 &}quot;Oil contracts negotiation team launched" "Daily News" retrieved 16th May 2015

²³⁸ Oil contracts negotiation team launched" "Daily News" retrieved 16th May 2015

^{239 &}quot;Understanding Oil Contracts" OpenOil, retrieved 14 January 2013.

^{240 &}quot;A Reporter's Guide to Energy and Development" Revenue Watch, retrieved 14 January 2013.

^{241 &}quot;Understanding Oil Contracts" OpenOil, retrieved 14 January 2013.

^{242 &}quot;A Reporter's Guide to Energy and Development" Revenue Watch, retrieved 14 January 2013.

Concessions are based on the American system of land ownership, in which a land owner owns all resources in the ground under the land he owns and theoretically all resources in the air above it. Concessions grant an area of land, sub-soil resources included, to a company so that if a company discovers oil on a piece of land, it owns that oil. In concession contracts the contractor also has exclusive rights to explore and prospect for oil in that pre-defined area. While the benefit to companies comes directly in the form of ownership over any oil and gas found, governments granting concessions benefit in the form of taxes and royalties on oil and gas produced.²⁴³ Companies compete by offering bids, often coupled with signing bonuses, for the license to these rights. This type of agreement is quite common throughout the world and is used in Kuwait, Sudan, Angola, and Ecuador, among other countries.²⁴⁴

Advantages and Disadvantages

For governments, concession contracts have the advantage of being more straightforward than other kinds of agreements, and the degree of professional support and expertise required is often less complex than that needed to negotiate joint ventures or PSAs. Also, the host government keeps the fees paid by the contractor regardless of whether oil is found and commercial production takes place. All financial risks of development, including the costs of exploration, are absorbed by the contractor. The main disadvantage, for governments, of concession contracts is that companies bidding for the contract tend to be more cautious in their bids. If oil and gas reserves are not proven then there is no guarantee that a company's costs will be covered, so the host government may not maximize its potential return. ²⁴⁵

Production Sharing Agreements

Production sharing agreements (PSAs), sometimes called production sharing contracts (PSCs), does not vest a contractor with ownership over the oil in the ground; ownership of the resource lies with the state. In this situation the PSA is drafted so that a contractor can extract the government's oil on behalf of the government.

^{243 &}quot;Understanding Oil Contracts" OpenOil, retrieved 14 January 2013.

^{244 &}quot;A Reporter's Guide to Energy and Development" Revenue Watch, retrieved 14 January 2013.

^{245 &}quot;A Reporter's Guide to Energy and Development" Revenue Watch, retrieved 14 January 2013.

The PSA was first used in Indonesia in 1966, when the government decided to maintain ownership of the oil in the ground, so that the international company had the right to explore for oil but gained the right to own it and sell it (or a portion of it) once it had been extracted. In Indonesia, according to Revenue Watch, the concession licensing method had been discredited as a legacy of imperialistic and colonial periods and the PSA system was developed in the context of a broader movement of "resource nationalism" among oil-producing countries worldwide.²⁴⁶ Since that time PSAs have spread globally and are now a common form of doing business, especially in Central Asia and the Caucasus.²⁴⁷

Oil companies are entitled to cost recovery for operating expenses and capital investment, and receive money from annual earnings - "cost oil" - to this effect. Once the companies have used annual earnings to repay themselves, the rest - "profit oil" - is shared according to the agreed percentage division with the host government. 248

Advantages and Disadvantages

All financial and operational risk rests with the international oil companies in the PSA arrangement, and a host government has the added advantage that it shares any potential profits without having to make an investment, unless it agreed to do so. A disadvantage of the PSA for host governments is that it puts a premium on highly professional negotiations, and the government must have access to technical, environmental, financial, commercial, and legal expertise. This is more feasible for some oil-rich countries than others.²⁴⁹

Service Contracts

Like a PSA, a service contract does not give an ownership right to oil in the ground. Unlike a PSA, in a service contract the international company never actually gains ownership, or "title", to the oil produced either. In these cases the company is simply paid a fee for its services in extracting the government's oil.²⁵⁰

^{246 &}quot;Understanding Oil Contracts" OpenOil, retrieved 14 January 2013.

^{247 &}quot;A Reporter's Guide to Energy and Development" Revenue Watch, retrieved 14 January 2013.

^{248 &}quot;A Reporter's Guide to Energy and Development" Revenue Watch, retrieved 14 January 2013.

^{249 &}quot;A Reporter's Guide to Energy and Development" Revenue Watch, retrieved 14 January 2013.

^{250 &}quot;Understanding Oil Contracts" OpenOil, retrieved 14 January 2013.

Joint Ventures

Another arrangement, sometimes considered to be a fourth type of contractual arrangement, is the joint venture (JV), which involves the state, through a national oil company, entering into a partnership with an oil company or a group of companies. The JV itself is in this case awarded the rights to explore, develop, produce and sell petroleum. ²⁵¹ Because there is no commonly-accepted form or structure for JVs, they are less commonly used as the basic agreement between an oil company and a host government. JVs require host governments and companies to do things jointly, so if the parties fail to work together the negotiations can be painstaking and disagreement common.

Advantages and Disadvantages

For the government, the only advantage of a JV is that it is not alone in decision-making on oil and gas matters and can count on the expertise and shared stake of a major international company. One of the main disadvantages of JVs is that they require more extended negotiations and require much more legal advice because their format is so ambiguous. Additionally, costs must also be shared between the parties, meaning that the host government is a direct and responsible participant in the natural resource extraction, and responsibility also brings with it liability, including for environmental damage.²⁵²

3.15 Transfer Pricing in the Oil and Gas industry in Tanzania

Definition

A transfer price is a price adopted for book-keeping purposes, which is used to value transactions between affiliated enterprises integrated under the same management at artificially high or low levels to effect an unspecified income payment or capital transfer between those enterprises. Suppose a Tanzania based subsidiary of an International Oil and Gas Company (IOGC) trades either goods or services with a Swiss based subsidiary of the same company and establishes a price for the transaction, that process is called transfer

^{251 &}quot;Understanding Oil Contracts" OpenOil, retrieved 14 January 2013.

^{252 &}quot;A Reporter's Guide to Energy and Development" Revenue Watch, retrieved 14 January 2013.

^{253 &}quot;Transfer Price" "OECD" retrieved 02 December 2014.

pricing. If the Swiss based subsidiary sells goods and/or services at an artificially high price to the Tanzanian subsidiary, the Swiss based subsidiary has artificially high profits while the Tanzanian based subsidiary has artificially low profits. Thus, the profit margins of the Tanzanian based subsidiary are determined by the artificial prices which, in turn, determine the tax revenue accrued by the Government of Tanzania.

The Income Tax (Transfer Pricing) Regulations (2014)

The Income Tax Transfer Pricing Regulations of 2014 have been made under the Income Tax Act, Cap 332. They apply to a controlled transaction when a person, who is a party to the transaction, is located in and subject to tax in the United Republic of Tanzania (URT) and when the other person, who is a party to the transaction, is located in or outside the URT.²⁵⁴ The guideline document states that all transactions to which the regulations apply have to be conducted in a manner that is consistent with the arms' length principle—meaning that commercial or financial transactions between associates are taking place on the same terms as if such transactions had taken place between independent persons under comparable conditions and circumstances using market prices.²⁵⁵ Moreover, the regulations require a contemporary transfer pricing documentation and set penalty provisions for non-compliance. Penalties may be imprisonment for a maximum term of six months and/or a fine of not less than 50 million Tanzanian shillings.

Challenges

Transfer pricing poses a challenge to governments as international companies might manipulate prices to minimise tax obligations. The fact that oil and gas companies tend to have a significant number of related party transactions²⁵⁶ suggests that the scope for international oil and gas companies to use artificially low and/or high prices for their related party transactions is very high. Thus, the issue of transfer pricing is of special relevance to the oil and gas sector in Tanzania. Moreover, it is particularly difficult for the Government of

^{254 &}quot;Income Tax-Transfer Pricing Regulation" "TRA" retrieved 02 December 2014

^{255 &}quot;Income Tax-Transfer Pricing Regulation" "TRA" retrieved 02 December 2014

^{256 &}quot;PWC Transfer Pricing" "PWC" retrieved 02 December 2014.

Tanzania to establish whether real market prices were in force when auditing oil and gas companies, especially when it comes to services and intellectual property. Thus, establishing whether the arms' length principle has been violated remains difficult and potentially vague. Some critics argue that only few members of the Tanzania Revenue Authority (TRA) staff understand the transfer pricing techniques, which are often complicated since they involve different countries and tax jurisdictions.²⁵⁷ Even the TRA admits the existence of an ineffective legal and administrative framework and lack of skilled human capacity as well as lack of co-operation among jurisdictions, problems which continue to present difficulties in their work.²⁵⁸

^{257 &}quot;One Billion Dollar Question", "Policy Forum", retrieved 02 December 2014

^{258 &}quot;Transfer Pricing "Fairness in Taxing Multinationals and Extractive Industries", "TRA", retrieved 02 December 2014.

4. Political, Social and Environmental Impacts

4.1 Resource Curse

The "Resource Curse" (sometimes termed the "paradox of plenty") refers to the theory that natural resource wealth and a high degree of dependency on natural resources can sometimes paradoxically create negative development outcomes in producing countries, due to weakened governmental institutions, neglect of other key sectors of the economy, corruption, high income inequality and other factors.²⁵⁹

Evidence and Research

The idea that natural resources can result in poor development outcomes has been in play since the 1950s, when it was hotly contested by the ideological camps of the Left and Right. Empirical data began to accumulate to support the idea over time. In the 1970s Gobind Nankani, a vice-president at the World Bank, showed that a group of mineral exporting countries grew on average by 1.5 percent per year over the period 1960 to 1976, about half the growth in a control group of non resource-rich countries.²⁶⁰ In 1988, a study commissioned by the World Bank examined the windfalls accruing to six oil-rich countries during the boom of the 1970s and concluded that those states had performed less well than other, resource-poor countries.²⁶¹ At the end of the 1990s Jeffrey Sachs and Andrew Warner's publication "Natural Resource Abundance and Economic Growth" examined 97 countries over a period of 18 years (1971 -1989) and found that states with a high abundance of natural resource exports had abnormally slow economic growth in general, relative to other countries. The study became the basis of a growing recognition of the need to address the problems that natural resource abundance can create in developing societies.²⁶²

^{259 &}quot;Exploring Oil Data" OpenOil, 2012.

²⁶⁰ Nankani, Gobind "Developmental Problems of Mineral Exporting Countries" World Bank, 1979.

^{261 &}quot;Oil Windfalls, Blessing or Curse?" Alan Gelb and Associates, 1988.

²⁶² Sachs, Jeffrey and Warner, Andrew "Natural Resource Abundance and Economic Growth" Center for International Development and Harvard Institute for International Development, November 1997.

Opponents of the Term

Some economists have resisted the term "resource curse" because they claim it sounds fatalistic.²⁶³ Oxford professor Paul Collier suggests that the term poses the problem the wrong way round, since he estimates there are more natural resources in developed countries than in developing ones. The dominance of natural resource industries in some developing countries' economies is simply, he states, due to the fact that they have had few other options for economic development, which in turn is due to a whole host of political and social factors. Collier argues that for the world's "Bottom Billion" - the poorest billion people on the planet - a greater problem is rather that their natural resources have not been discovered or developed enough.²⁶⁴

Others have resisted the idea that the phenomenon is inevitable, arguing that any resource curse must be contingent. Paul Collier cites the case of Botswana, for example, which has experienced rapid growth since the discovery of diamonds.²⁶⁵

Attitudes of Major Institutions

International Institutions

The International Monetary Fund has published papers discussing how to address the resource curse in Nigeria²⁶⁶ and Botswana.²⁶⁷ For its part, the World Bank uses the term "resource curse"²⁶⁸²⁶⁹ while arguing that it is not inevitable and can be avoided by good governance.

^{263 &}quot;Resource Curse, or Resource Trap?" Thinking Out Aloud, 23 February 2010.

²⁶⁴ Collier, Paul "The Plundered Planet: Why We Must--and How We Can--Manage Nature for Global Prosperity", Oxford University Press, 2011.

^{265 &}quot;Laws and Codes for the 'Resource Curse'" Oxford University, September 2007.

^{266 &}quot;Addressing the Natural Resource Curse: An Illustration from Nigeria", IMF, July 2003.

^{267 &}quot;Escaping from the Resource Curse: Evidence from Botswana and the Rest of the World" IMF, 2007.

^{268 &}quot;Property Rights and the Resource Curse" World Bank, 5 April 2007.

^{269 &}quot;Contributing to development'? Q&A with World Bank Group director", Critical Resource, January 2010.

Oil Companies

The attitude of private oil companies towards acceptance of the term varies, however in a 2004 speech Nick Butler, BP's Vice-President for Strategy and Policy Development, made the following comment in acknowledgment of the phenomenon: "The reality of the problems which have afflicted a number of different countries as a result of natural resource development is undeniable. I am convinced that there are things we can do to mitigate many of the problems but it would be quite wrong to start from a position of denial." 270

On the other hand, in an advertisement from 2006, US major ExxonMobil rejected use of the term Resource Curse, but said it supported the Extractive Industries Transparency Initiative (EITI) process because it acknowledges that good governance is necessary to deliver benefits from oil production, and that transparency is a part of that. The advertisement made the point that "disparaging the resource itself is not the answer."

Economic Symptoms

Dutch Disease

So-called "Dutch disease" is the effect on a country's economy when it earns a lot of revenues from exporting a natural resource. It was named after the period in the Netherlands when a decline in the manufacturing sector was witnessed during the 1960s following the discovery of a major natural gas field. The theory goes that oil exports result in large inflows of foreign currency, which in turn tends to lead to the appreciation of the local currency and makes exports from other sectors uncompetitive. Simultaneously the earning power of the oil sector draws in labor and capital, adversely affecting other sectors of the economy, whether they are export-oriented or not.²⁷²

Oil and Debt

Economists have long noted the link between oil revenues and higher fiscal spending. Overspending during a commodity boom, thanks to access to cheap credit in international capital matters, can lead

^{270 &}quot;Escaping the Resource Curse: Managing Natural-Resource Revenues in Low-Income Countries" BP, 26 February 2004.

²⁷¹ Garsten, Christina and Lindh de Montoya, Monica" Transparency in a New Global Order" Edward Elgar Publishing, 2008.

^{272 &}quot;Mineral-Rich Countries and Dutch Disease" World Bank", 2008.

to accumulation of high levels of debt, leading to high interest rate spreads during periods of lower natural resource prices. Some have attributed the "resource curse" in oil-rich countries to the "debt overhang" which occurred in the 1970s when these countries used commodities as collateral to take on excessive debt when oil prices were high. However a collapse in oil prices in the 1980s left these countries with no ability to service their debts.²⁷³

A 2005 study by the Institute for Public Policy Reform analysed data from 101 countries for the period 1991 to 2002 and concluded there was a statistical correlation between increased oil production and exports, and public debt in the producing country.²⁷⁴ The case of Venezuela during the 1970s oil boom displays the symptoms detailed above, where President Carlos Andres Perez increased public spending dramatically, leading to high levels of debt and ensuing management problems through commodity price cycles.²⁷⁵

Political Symptoms

Weakening of Institutions

Many political scientists have outlined a "resource curse" which both makes rulers in a state less accountable, and state institutions weaker. They are less accountable because the presence of resource revenues means a state is not under the same pressure to raise taxes in order to provide welfare and public services (to a greater or lesser extent depending on the degree of their resource wealth). State institutions become weaker because they do not develop the same degree of discipline, through meritocracy and against measured goals and results. The most notable exponent of this theory has been Professor Terry Lynn Karl, who studied the cases of Venezuela, Nigeria, Algeria and Iran for her analysis.²⁷⁶

Conflict

Analysts of the resource curse point to many cases where natural resource wealth creates or exacerbates conflicts, either between states or within them. Notable cases include:

²⁷³ Coutinho, Leonor "The Resource Curse and Fiscal Policy" Cyprus Economic Policy Review, 2011.

^{274 &}quot;Drilling into Debt" Institute of Public Policy Research, 2005.

²⁷⁵ Hausmann, Ricardo and Rodriguez, Francisco "Venezuela: Anatomy of a collapse", 2006.

²⁷⁶ Karl, Terry Lynn, "The Paradox of Plenty: Oil Booms and Petro States" University of California Press, 1997.

- South Sudan, where the presence of oil renewed tensions between the Khartoum government in Sudan and the newly formed country.
- The oil-rich Cabinda region of Angola, where a secessionist movement has flourished since the discovery of oil.
- Nigeria, where the concentration of oil in the Niger Delta was a contributing factor to the Nigerian Civil War of 1966-70, and ever since has been a cause of significant unrest.²⁷⁷

Avoiding the Resource Curse

Mechanisms and policies which have been proposed to avoid the "resource curse" include: simply leaving the oil in the ground (one of the more extreme proposed solutions that allows an economy and society time to adjust before inflows arrive, but opposed by the private sector); economic diversification (to develop other sources of value and reduce dependency on mineral exports); "revenue sterilisation" (to neutralise the impact of windfall revenues by resisting spending pressures); and stabilisation funds (set up to invest revenues outside the domestic economy and guard against fluctuating commodity prices).²⁷⁸

4.2 Mtwara Gas Protest

About Mtwara

Mtwara is a coastal region situated in the South-Eastern part of Tanzania. The region covers an area of 16,710 km². According to the 2012 national census, the region had a population of 1,270,854, up from 1,124,481 in 2002, indicating an inter-censal growth rate of 1.2.²79 In 1982, the second national natural gas discovery was made in Mnazi Bay in Mtwara region, and in 2006 Mnazi Bay went commercial.²80

^{277 &}quot;The Natural Resource Curse: A Survey" Harvard Kennedy School, February 2010.

^{278 &}quot;Resource Impact - Curse or Blessing?" University of Dundee, 25 March 2003.

^{279 &}quot;Tanzania in figures 2012" "National Bureau of Statistics" retrieved 25th May 2015.

^{280 &}quot;Making natural gas guarantee sustainable development" "Economic and Social Research Foundation" retrieved 2nd September 2014.

Background

In July 2012, the Tanzania Government launched the construction of a 532 km Mnazi Bay to Dar es Salaam gas pipeline project. ²⁸¹ In January 2013, people protested against the proposed pipeline, but President Jakaya Kikwete made it clear that the government will continue with the project despite the protests, arguing that the resources belong to the whole country, not one geographical area. ²⁸² On 15 May 2013, leaflets were distributed in Mtwara urging people to paralyse the town by not rendering any service. The leaflets urged commuter buses and motorcycle operators famously known as bodaboda, shop owners and market vendors not to offer services on 17 May when the former Minister for Energy and Minerals, Prof. Sospeter Muhongo, was due to present his budget estimates for the 2013/2014 financial year.

However, the minister's budget speech was not presented on that day. The police urged the people to continue with their daily businesses with security guarantees that everything was under control. Five days later, on 20 May 2013, other leaflets were distributed aimed at the day the budget speech was to be presented.²⁸³

Genesis of the riot

On 22 May 2013, Mtwara saw protests and street battles. The protests and street battles, which briefly disrupted the regional economy and stability, were attributed to multiple causes: the confirmation by the government through the former Minister of Energy and Minerals, Prof. Muhongo, to construct a 532 km pipeline from Mtwara to Dar es Salaam funded by the Chinese government;²⁸⁴ Western governments' whose main motive was to tame the growing Chinese investments in the gas-rich region,²⁸⁵ lack of proper communication between the government and Mtwara residents;²⁸⁶ and political rivalry

^{281 &}quot;Tanzanian pipeline construction inaugurated" "Pipelines International", retrieved 5th February 2015.

^{282 &}quot;Why the so-called Mtwara gas fiasco is of our own making" "The Silver Dale Case" retrieved 25th November 2015 .

^{283 &}quot;Press Freedom violations in Mtwara: Probe report" "Media Council of Tanzania" retrieved 14th July 2014.

^{284 &}quot;The untold story of Mtwara gas riots" "IPPMedia" retrieved 23 May 2015.

^{285 &}quot;The untold story of Mtwara gas riots" "IPPMedia" retrieved 23 May 2015.

^{286 &}quot;Inside Mtwara natural gas bloody chaos" "IPPMedia" retrieved 23 May 2015.

between the ruling party Chama cha Mapinduzi (CCM) and opposition parties, namely CHADEMA (the party of democracy and development) and CUF (Civic United Front). Of all the causes put forward by commentators, pundits believe that lack of clear communication and engagement between the Tanzania Government and Mtwara residents on how they would benefit from the construction of the pipeline was the central concern by the people of Mtwara. One analyst noted, "the people were not opposed to the project. Rather, the sentiments were due to a lack of clear information on how the project would bring them tangible benefits."

This view is shared by the Mtwara-based Pride FM Station Manager who remarked: "When the gas issue emerged last year [2012], there were public forums all over the region [Mtwara], some speaking positively about it and others against [it]. Generally, it was clear that awareness education on the matter was missing, both to the general public and the media."²⁸⁹ That notwithstanding, analysts framed the sentiments within the historical experiences of the southern Tanzania by indicating that from the colonial groundnut scheme of the 1940s and 1950s, to the post-independent Tanzania Government's villagisation policy during the 1970s, people in the south have only "experienced political engagement as subjects of policies and projects imposed and rarely discussed" [them]".²⁹⁰

Views from Members of Parliament (MPs)

Members of Parliament from both the ruling party (Chama cha Mapinduzi, CCM) and opposition parties commented on the gas riots. According to Mr. Ezekiel Maige (CCM), the gas riot is a message that Tanzanians now want the royalty that the Tanzania Government gets from extractive companies to be shared between the government—the central government and communities where natural resources are being extracted. He reiterated that there was a need for the authorities to implement the Bomani Commission's recommendation that local communities take 40% of the earnings from natural resources. His views were also shared by his CCM counterpart. Mr.

^{287 &}quot;The untold story of Mtwara gas riots" "IPPMedia" retrieved 23 May 2015.

^{288 &}quot;Inside Mtwara natural gas bloody chaos" "IPPMedia" retrieved 23 May 2015.

^{289 &}quot;Press Freedom violations in Mtwara: Probe report" "Media Council of Tanzania" retrieved 14th July 2014.

 $^{290\ {\}rm ''Inside}\ {\rm Mtwara}\ {\rm natural}\ {\rm gas}\ {\rm bloody}\ {\rm chaos''}\ {\rm ''IPPMedia''}\ {\rm retrieved}\ 23\ {\rm May}\ 2015.$

James Lembeli.²⁹¹ The Mtwara Urban MP (CCM), Hasnain Murji, who was accused by his party and government officials of inciting the violence, noted, "they [people of Mtwara] are [were] not against the pipeline, they are [were] protesting lack of clarification on how they would benefit."²⁹² The former Attorney General and MP for Bariadi West, Mr. Andrew Chenge, urged the government not to listen to those opposed to the project as natural resources in Tanzania are for all Tanzanians.²⁹³

Government's Reaction

The Tanzania Government reacted differently. The National Assembly, through the Speaker, established a special team to investigate the matter. The team was chaired by Charles Mwijage (from the ruling party) and deputised by Said Arfi (from the opposition). Other committee members were Dalaly Kafumu (ruling party); Said Nkumba (ruling party); Cynthia Ngoye (ruling party); Hamad Rashid (opposition party); Ramo Makani (ruling party); Mohammad Chomboh (ruling party); Cecilia Pareso (opposition party); Rukia Ahmed (opposition party); Mariam Kisangi (ruling party); Agripina Buyogera (opposition party); and Selemani Jafo (ruling party). According to the Speaker of Parliament, Ms. Anne Makinda, the committee was tasked to investigate the effectiveness of the steps that have been taken by the government in dealing with the situation and recommend the best way to contain the situation.²⁹⁴

The decision came after the suspension of the minister's budget speech in the August House. On his part, the former Director of Criminal Investigation (DCI), Robert Manumba, informed journalists that a task force had been dispatched to Mtwara to find out what exactly transpired.²⁹⁵ Neither of these reports—by the Parliament and Police—was made public.

^{291 &}quot;Parliament seeks lasting solution to Mtwara crisis" "The Citizen", retrieved 20th January 2015.

^{292 &}quot;Inside Mtwara natural gas bloody chaos" "IPPMedia" retrieved 23 May 2015.

 $^{293\ {\}rm "Chaos\ hits\ Mtwara\ after\ gas\ project\ confirmation"\ retrieved\ 10th\ December\ 2014\ .}$

^{294 &}quot;Parliament seeks lasting solution to Mtwara crisis" "The Citizen", retrieved 20th January 2015.

^{295 &}quot;Inside Mtwara natural gas bloody chaos" "IPPMedia" retrieved 23 May 2015.

Army's Involvement

During the riots, riot police were deployed and soldiers were seen patrolling the streets.²⁹⁶ The town returned to normalcy after the Tanzania People's Defence Forces (TPDC) was called in to contain the situation.²⁹⁷

Impacts

The riots in Mtwara affected the economic activity of the residents and security. Reports indicate that Mtwara Central Market stayed closed for three consecutive days as running battles between the police and rioters made it difficult for people to trade.²⁹⁸ The riots left four people dead and more than 20 others injured, including a police officer. In Masasi District, the riots caused an estimated loss of public and private property worth Sh1.5 billion as a score of houses, motorcycles and vehicles were set ablaze.²⁹⁹ Other reports estimate the loss of damaged property at Sh1.7billion. Apart from houses, motorcycles and vehicles, other damaged property included the Mikindani Primary Court, CCM's office and private houses.³⁰⁰

Attack on Press Freedom

According to the statement issued by the Media Council of Tanzania (MCT), three journalists including Kassim Mikongolo (from government owned Tanzania Broadcasting Corporation – TBC), Hassan Simba (from government owned Kiswahili newspaper – Habari Leo), and Rashid Mussa (from ruling party newspaper – Uhuru) were not spared by rioters. Whereas Mikongolo's house, a car and tricycle were torched, Mussa was reported to have been threatened and Simba was threatened but rescued by the Police.

However, the office of Mwananchi newspaper—a widely circulated newspaper in the country—was not entangled in the saga as some

^{296 &}quot;Why the so-called Mtwara gas fiasco is of our own making" "The Silver Dale Case" retrieved 25th November 2015.

^{297 &}quot;Parliament seeks lasting solution to Mtwara crisis" "The Citizen" retrieved 20th January 2015.

^{298 &}quot;Inside Mtwara natural gas bloody chaos" "IPPMedia" retrieved 23 May 2015.

^{299 &}quot;Mtwara MP's fate hangs on a thread over Mtwara violence" "IPPMedia" retrieved 2nd December 2015.

^{300 &}quot;Inside Mtwara natural gas bloody chaos" "IPPMedia" retrieved 23 May 2015.

'vigilantes' volunteered to protect it as the newspaper was perceived to advance popular views.³⁰¹

Government Stand

During his budget speech, the Minister noted that the government would not reverse its decision to build a gas pipeline from Mtwara to Dar es Salaam despite the opposition that he said had been fuelled by some political parties: "The Mtwara-Dar es Salaam Gas Pipeline is on...we plan to spend Tsh. 63bn during the 2013/2014 financial year as part of the government's contribution towards construction of the project." 302

^{301 &}quot;The Media Council of Tanzania (MCT) has expressed deep concern and disappointed over riots" "Media Council of Tanzania" retrieved 22nd May 2014

³⁰² "Chaos hits Mtwara after gas project confirmation" "The Citizen" retrieved $10 {\rm th}$ December 2014 .

5. State-owned Entities

5.1 Tanzanian Ministry of Energy and Minerals

The Ministry of Energy and Minerals (MEM) was established under the Minister (Discharge of Ministerial Functions) Act, Cap. 229 Government Notice (GN) No. 494 of 2010, which came into operation on 24th November 2010. 303 Before the establishment of the Ministry of Energy and Minerals MEM), energy and mineral issues were being handled by Ministry of Commerce and Industry (1960 - 1961), Ministry of Industries, Mineral Resources and Power (1964 - 1966), Ministry of Water, Power and Mineral Resources (1978 -1981), Ministry of Minerals (1981 - 1984), Ministry of Energy and Minerals (1986 - 1990) and Ministry of Water, Energy and Minerals (1991 - 1996). 304

Mission and Vision

According to the ministry's homepage, the ministry is guided by a mission to "set policies, strategies and laws for sustainability of energy and mineral resources to enhance growth and development of the economy," with a vision to become "an effective institution, contributing significantly to the acceleration of socio-economic development through sustainable development and utilisation of energy and mineral resources in Tanzania by 2025."³⁰⁵

Functions

The fundamental responsibility of the ministry is to coordinate and put in place appropriate policies, laws and regulations and to provide oversight to ensure sustainable development in the energy and mineral sector.³⁰⁶

^{303 &}quot;Strategic Plan 2011/12 - 2015/16" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 5 September 2014.

^{304 &}quot;About GST" Geological Survey of Tanzania, retrieved 25 August 2014.

^{305 &}quot;Mission and Vision" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 27 August 2014.

^{306 &}quot;Petroleum Exploration Study. A Baseline Survey Report" Economic and Social Research Foundation, retrieved 10 September 2014.

The ministry has an oversight role in state-owned and statutory bodies namely:307

- Tanzania Minerals Audit Agency (TMAA)
- Geological Survey of Tanzania (GST)
- State Mining Corporation (STAMICO),
- Energy and Water Utilities Regulatory Authority (EWURA)
- Tanzania Electric Supply Company Limited (TANESCO)
- Rural Energy Agency (REA) of Tanzania
- Tanzania Petroleum Development Corporation (TPDC)
- Mineral Resources Institute (MRI)

Strategic Plan

The ministry is guided by a 5 year Strategic Plan, 2011/12 - 2015/16.³⁰⁸ The plan highlights five strategic areas³⁰⁹ as indicated below:

- Promote, develop and monitor the energy sector to maximise national benefits and ensure energy security
- Promote and expedite access to modern energy in rural areas
- Promote, develop and manage the mineral sectors to maximize national benefits
- Improve revenue collections from minerals and energy sectors, as well as
- Improve on human resource and financial management.

^{307 &}quot;Agencies and Institutions" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 22 August 2014.

^{308 &}quot;Strategic Plan 2011/12 - 2015/16" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 5 September 2014.

 $^{309\ ^{\}circ}$ Strategic Plan 2011/12 - $2015/16^{\circ}$ United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 5 September 2014.

Organisation

George Simbachawene is the Minister of Energy and Minerals.³¹⁰ He is deputised by Charles M. Kitwanga (Energy), and Charles Mwijage (Minerals)³¹¹, and the Acting Permanent Secretary Ngosi Mwihava³¹².

The Ministry is subdivided into two major divisions: Energy Division and Mineral Division. ³¹³ The Energy division is headed by a Commissioner and it has five sections including Petroleum, Electricity, New and Renewable Energy, Energy Development, and Gas Utilisation. The Mineral Division is also headed by a Commissioner and has six sections including Mines Inspectorate, Small Scale Mining Development, Licensing and Mineral Rights Management, Mineral Economics and Trading, Explosive Management, and Mineral Beneficiation and Value Addition. ³¹⁴

5.2 Tanzania Petroleum Development Corporation (TPDC)

The Tanzania Petroleum Development Corporation (TPDC) is the National Oil Company fully owned by the government through which the Ministry of Energy and Minerals executes its petroleum exploration and development policies.³¹⁵ The corporation was established under the Public Corporations Act No. 17 of 1969³¹⁶ (repealed and replaced by the Public Corporations Act Cap. 257 R.E.2002 of the Laws of Tanzania), and through Government notice No. 140 of 30 May 1969.³¹⁷

^{310 &}quot;Ministers" United Republic of Tanzania, Parliament, retrieved 17 April 2015.

^{311 &}quot;Deputy Ministers" United Republic of Tanzania, Parliament, retrieved 17 April 2015.

^{312 &}quot;Orca Exploration provides update on operations in Tanzania" Orca Exploration, retrieved 28 August 2014.

^{313 &}quot;Organization Structure" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 28 August 2014.

^{314 &}quot;Organization Structure" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 28 August 2014.

^{315 &}quot;About TPDC" TPDC, retrieved 14 August 2015.

^{316 &}quot;Public Corporation Act 1969" United Republic of Tanzania, retrieved 10 September 2014.

^{317 &}quot;Oil & Gas Regulation 2014" International Comparative Legal Guides, retrieved 10 September 2014.

The Corporation commenced active operations in 1973. ³¹⁸ Following its establishment, TPDC's primary task was to oversee the operations of AGIP (Azienda Generale Italiana Petroli - General Italian Oil Company), the sole concession holder operating in the country by then. With the discovery of the Songo Songo Gas field in 1974, and subsequent relinquishment by AGIP, TPDC undertook the confirmation of the gas field, and eventual appraisal.³¹⁹

Mission

TPDC is guided by a mission to "participate and engage in the exploration, development, production and distribution of oil and gas and related services; facilitate a fair trading environment; safeguard the national supply of petroleum products; at the same time develop quality and safety standards to protect people, property and the environment."³²⁰

Vision

The corporation is visioned to "become a leading integrated National Oil and Gas Company competing nationally, regionally and globally in an environmentally responsible manner to the benefit of all stakeholders." ³²¹

Objectives

The corporation's objectives as stipulated in the TPDC (Establishment Order, 1969), among others, include:³²²

- Exploration and production of petroleum
- Engage in distribution and storage facilities
- Acquire exploration and production rights
- Contract, hold equity or participate in oil and gas concessions, franchises and licenses

^{318 &}quot;Background" Tanzania Petroleum Development Corporation", retrieved 9 September 2014.

^{319 &}quot;Historical Background" Tanzania Petroleum Development Corporation, retrieved 9 September 2014.

^{320 &}quot;Our Mission" Tanzania Petroleum Development Corporation, retrieved 9 September 2014.

^{321 &}quot;Our Vision" Tanzania Petroleum Development Corporation, retrieved 9 September 2014.

^{322 &}quot;About US" Tanzania Petroleum Development Corporation, retrieved 9 September 2014.

- Manage any legal entities delegated to the corporation
- Develop an adequate industrial base for the oil and gas industry

The corporation activities encompass petroleum exploration, production, transportation, refining, marketing and distribution of petroleum products. These activities can be performed independently or in collaboration with foreign companies through Production Sharing Agreements (PSAs).³²³

Functions

According to the Petroleum Act 2015, TPDC as the National Oil Company shall perform the following functions:

- (a) Advising the Government on policy matters pertaining to petroleum industry;
- (b) Participating in petroleum reconnaissance, exploration and development projects;
- (c) Carrying out specialized operations in the petroleum value chain using subsidiary companies;
- (d) Handling the government's commercial participating interests in the petroleum sub-sector;
- (e) Managing the marketing of the country's share of petroleum received in kind;
- (f) Developing in depth expertise in the petroleum industry;
- (g) Investigating and proposing new upstream, midstream and downstream ventures local and international;
- (h) Contracting, holding equity or participating in oil service and supply chain franchises and other licences;
- (i) Performing any petroleum activities and related functions.³²⁴

Additionally, the National Oil Company, shall have exclusive rights over natural gas midstream and downstream value chain to undertake the following:

^{323 &}quot;Oil & Gas Regulation 2014" International Comparative Legal Guides, retrieved 10 September 2014.

^{324 &}quot;Petroleum Act, 2015" MEM, retrieved 16 August 2015.

- (a) Safeguard the national interest in the natural gas industry;
- (b) Participate in the development and strategic ownership of natural gas projects and businesses on behalf of the Government;
- (c) Carry out specialized operations in the natural gas value chain on its own or through its subsidiaries including processing, transportation, liquefaction, regasification, storage, compression and distribution;
- (d) Aggregate natural gas, own and operate major gas infrastructures on its own or through its subsidiaries;
- (e) Promote investment of gas activities in the designated areas;
- (f) Acquire, analyse and disseminate information on issues relating the natural gas industry;
- (g) Own pipeline network from central gathering stations to wholesale distribution and end user;
- (h) Plan and propose midstream and downstream ventures locally and internationally;
- Participate in the joint venture project for optimisation of shareholder value under public private partnership and strategic partnership arrangements;
- (j) Trade or supply gas in regional market and beyond;
- (k) Implement gas master plan;
- (l) Promote local content including participation of Tanzanians in the natural gas value chain;
- (m) Hold land for key oil and natural gas projects; and
- (n) Perform any other functions as the Government may direct.³²⁵

Directorates

TPDC has four major directorates namely Directorate of Corporate and Legal Services, Directorate of Downstream Operations, Directorate of Upstream Operations, and Directorate of Corporate Strategic and Planning (DCSP). The DCSP was established after restructuring of the Corporation in May 2014. The new directorate is charged with

^{325 &}quot;Petroleum Act, 2015" MEM, retrieved 16 August 2015.

the development of corporate strategies and corporate plans for investment decisions as well as identification of viable projects to be undertaken by TPDC, and/or other private sector participants through Public Private Partnership arrangement. The Directorate, whose workforce comprises of 11 staff, has three units: Corporate Strategy, Investments and Planning.³²⁶

According to the TPDC's website, the directorate has three major functions: Formulating and reviewing of short and long-term corporate strategies for all investment plans and making sure that plans are reviewed and adhered purposely for achieving corporate objectives;

Identifying, screening and evaluating investment projects through research and monitor implementation in collaboration with Upstream and Downstream Directorates, and developing plans of the corporation and its subsidiaries.³²⁷

Subsidiaries

TPDC holds shares in BP Tanzania Limited, TAZAMA Pipeline Limited, Mafuta House Investment Company Limited on behalf of the Government (Treasury Registrar). The Corporation is also actively engaged and holds shares in the Songo Songo gas-to-electricity and Mnazi Bay gas development projects. However, the Petroleum Act 2015 states that the "government shall at all times maintain a minimum of fifty one percent of shares in the National Oil Company. The Company of the National Oil Company.

Areas of Concern

There are several constraints limiting the performance of TPDC. Politicians and senior government officials seem to be unaware of the importance of TPDC working as an autonomous corporate national oil company. The current fiscal and financial arrangement forces TPDC to operate as a government department. The corporation does

^{326 &}quot;Corporate Strategy, retrieved 10th May 2015.

^{327 &}quot;Corporate Strategy, retrieved 10th May 2015.

^{328 &}quot;Background" Tanzania Petroleum Development Corporation, retrieved 9 September 2014.

^{329 &}quot;Historical Background" Tanzania Petroleum Development Corporation, retrieaved 9 September 2014.

^{330 &}quot;Report of the Controller and Auditor General on the Financial Statements of the Tanzania Petroleum Development Corporation for the year ended 30th June 2012" United Republic of Tanzania, National Audit Office, retrieved 12 September 2014.

not have legal power to generate, maintain, save and control own financial resources.³³¹

Boards of Directors

The following constitute the current board of TPDC:332

- Mr. Michael P. Mwanda (Chairman) Retired Permanent Secretary
- Eng. Norbert Kahyoza (Director) Assistant Commissioner for Energy, Ministry of Energy and Minerals
- Mr. Ali Khalil Mirza (Director) Principal Secretary Ministry of Water, Construction, Energy and Land Zanzibar
- Hon. Josephat Makanja (Director) Retired Judge of the High Court
- Prof. Sufian H. Bukurura (Director) Law Reform Commission
- Ambassador Ben Mosses (Director) Retired Ambassador
- Dr. Donald Mmari (Director) REPOA
- Ms Mameltha Mutagwaba (Director) Ministry of Finance
- Dr. Lutengano Mwakahesya (Director) Director General, REA
- Mr. Ahadi Chacha (Director) SUMATRA

5.3 Tanzania Electric Supply Company Limited (TANESCO)

Overview

Tanzania Electric Supply Company Limited (TANESCO) is a parastatal organisation under the Ministry of Energy and Minerals. The power utility company generates, transmits, and distributes for sale electricity to Tanzania Mainland and sells power in bulk supplied to the archipelago of Zanzibar.³³³ The history of TANESCO dates back

^{331 &}quot;Petroleum Exploration Study. A Baseline Survey Report" Economic and Social Research Foundation, retrieved 9 September 2014.

^{332 &}quot;Current Board of Directors" Tanzania Petroleum Development Corporation, retrieved 12 September 2014.

^{333 &}quot;About us- History", "TANESCO", retrieved 01 December 2014.

to the colonial times. A first electric supply company was established by the German colonialists in 1908, serving railway workshops and a part of Dar es Salaam where the colonialists were mostly staying. When the Tanganyika territory was mandated to Great Britain in 1920, a Government Electricity Department was formed to take over and operate the public supplies left by the Germans. In 1931, the government handed over the undertaking at Dar es Salaam and upcountry power stations in Dodoma, Tabora and Kigoma to private enterprises. One of them was TANESCO - the Tanganyika Electric Supply Company Limited - which was established on 26th November 1931. 334 The name Tanzania Electric Supply Company Limited (TANESCO) was formally adapted in 1968. Between 1964 and 1975, the government purchased all the shares and transformed the company into a national electricity company. Till today, TANESCO is wholly owned by the Government of Tanzania. By 17 June, 2010, TANESCO had 5,645 employees made up of 4,516 men and 1,129 woman.335

Functions

Generation

TANESCO's generation system consists mainly of hydro and thermal based power generation. In 2012, hydro power contributed 57 percent of the total power generation with gas and thermal power contributing the remainder. In 2012, the total amount of units generated was 5,759,756,313 kWh. TANESCO own generation accounted for 3,110,436,062 kWh with supplementary power of 2,649,320,551 kWh being supplied by Independent Power Producers (IPPs) and neighbouring countries of Uganda and Zambia. TANESCO operates seven hydro-power stations: Kidatu (204MW); Kihansi (180MW); Mtera (80MW); Pangani (68MW); Hale (21MW); Nyumba ya Mungu (8MW) and Uwemba (0.82MW). Tanesco owns and operates gas-fired power plants using natural gas in Dar es Salaam: Ubungo I (100 MW), Ubungo II (105 MW) and Tegeta (45MW). Tanesco also owns and operates isolated grids that are supplied with power from thermal diesel or IDO power plants at 33 KV and 11

^{334 &}quot;TANESCO at 50: Successes, challenges go side by side", "IPPMedia", retrieved 01 December 2014.

^{335 &}quot;About us-History" "TANESCO" retrieved 01 December 2014.

^{336 &}quot;Core Functions - Generation" "TANESCO" retrieved 01 December 2014.

^{337 &}quot;Core Functions - Generation" "TANESCO" retrieved 01 December 2014.

^{338 &}quot;Core Functions - Generation" "TANESCO" retrieved 01 December 2014.

kV and has two gas-fired power plants serving Mtwara/Lindi (18 MW) and Somanga Fungu (7.5 MW). 339

Transmission

TANESCO's transmission system comprises 43 substations interconnected by transmission lines. Transmission lines comprise 2,732.36 km of system voltages 220kV, 1,556.5km of 132kV, and 580 km of 66kV, totalling 4,868.86km by the end of May, 2014. 340 Almost all the transmission lines are radial single circuit lines. The system is all alternating current (AC) and the system frequency is 50 Hz. 341 The total installed capacity in the main grid system amounts to 1,396.24MW. The system is a hydro-thermal mix, constituting 561.84 MW (40.24%) hydro-power and thermal power (gas - 501 MW and liquid fuel 333.4MW) mainly from IPPs. 342

Distribution

TANESCO distributes power directly to the final consumer. It is estimated that over 80 percent of all TANESCO revenue is earned from only 1,700 Large Power Users (LPUs) who form 0.24% of all customers countrywide. LPUs are those customers that consume over 7,500kWh per month.³⁴³ TANESCO's services reach only a minority of Tanzanians. According to the World Bank, only 15 percent of the Tanzanian population had access to electricity in 2011 (Energy Access in Tanzania).³⁴⁴

Board of Directors

The following constitute the current TANESCO Board of Directors:

- Dr. Mighanda J. Manyahi Board Chairperson
- Dr. Haji H. Semboja Director
- Dr. Mutesigwa I. Maingu Director
- Dr. Nyamajeje C. Weggoro Director

^{339 &}quot;Core Functions - Generation" "TANESCO" retrieved 01 December 2014.

^{340 &}quot;Core Functions - Transmission" "TANESCO" retrieved 01 December 2014.

^{341 &}quot;Core Functions - Transmission" "TANESCO" retrieved 01 December 2014.

^{342 &}quot;Core Functions - Transmission" "TANESCO" retrieved 01 December 2014.

 $^{343\ {\}rm ``Core}\ {\rm Functions}\ {\rm -}\ {\rm Distribution''},\ {\rm ``TANESCO''}\ {\rm retrieved}\ 01\ {\rm December}\ 2014.$

^{344 &}quot;Energy in Tanzania" "World Bank", retrieved 01 December 2014.

- Bi. Kissa Vivian Kilindu Director
- Eng. Boniface C. Muhegi Director
- Eng. Juma F. Mkobya Director³⁴⁵

Recent Developments

In June 2014, the Government of Tanzania approved the Electricity Supply Industry (ESI) reform and Roadmap 2014-2025 that seeks, among others, to divide TANESCO into three different autonomous entities: TANESCO will be responsible for electricity distribution only, whereas the other two new companies will be established and charged with the responsibility of generation and transmission, respectively. The aim of the reform is to increase competition, attract private investment into the power sector and ensure a reliable nation-wide supply of electricity. The government plans to invest US\$ 1.15 billion in the next 11 years of reform and implementation. The supply of electricity.

The new generation company will be state-owned and listed on the Dar es Salaam Stock Exchange (DSE), with the government retaining at least 51 percent shareholding.³⁴⁸ Different power generators (private and public) of electricity will compete in selling directly to distributors, retailers and final consumers.³⁴⁹ Transmission companies will be owned by the Tanzanian government and will facilitate the supply of electricity from generators to distributors who will operate as separate companies. The companies, which will either be public or private owned, will then sell power to retailers in their respective territories.³⁵⁰ Under the approved strategy, power generation is anticipated to increase from the current 1,583MW to at least 10,000MW by 2025 and increase electricity connection levels to at least 50 per cent and access levels to at least 75 per cent by 2025.³⁵¹

^{345 &}quot;Board of Directors" "TANESCO" retrieved 11 May 2015.

^{346 &}quot;Tanzania: Cabinet okays Tanesco reform" "All Africa" retrieved 01 December 2014.

^{347 &}quot;Tanesco to go public, be split into three firms" "The East African", retrieved 01 December 2014.

^{348 &}quot;Tanesco to go public, be split into three firms" "The East African", retrieved 01 December 2014.

^{349 &}quot;Tanesco to go public, be split into three firms" The East African, retrieved 01 December 2014.

^{350 &}quot;Tanesco to go public, be split into three firms" The East African, retrieved 01 December 2014.

^{351 &}quot;Tanzania: Cabinet okays TANESCO reform" "All Africa" retrieved 01 December 2014.

Tanzania will be the third country in East Africa after Kenya and Uganda to unbundle the national electricity supply company. Kenya enforced a similar reform in 2009 that attracted private investors into the geothermal sector and significantly increased access to electricity. ³⁵² In 2015, the Government of Tanzania will establish a taskforce to monitor the implementation of the roadmap and carry out an evaluation of TANESCO's generation, transmission and distribution segments.

However, the ESI states that it is of utmost importance to settle first TANESCO's debts if the reform process is to be successful. So far, TANESCO increased tariffs and received transfers from the Central Government to improve its financial standing. ³⁵³

5.4 The Energy and Water Utilities Authority (EWURA)

Overview

The Energy and Water Utilities Authority (EWURA) is an autonomous and multi-sectoral regulatory authority established in February 2006 by the Energy and Water Utilities Regulatory Authority Act, Cap 414. The Authority is charged with the responsibility of overseeing technological and economic regulation in four sectors, namely Electricity, Natural Gas, Petroleum and Water.³⁵⁴

Mission and Vision

According to the Authority's website, EWURA is guided by a mission to "regulate the Energy and Water services in a transparent, effective and efficient manner that promotes investments and enhances the socio-economic welfare of the Tanzanian Society," with a vision to become "a world class regulator of energy and water services." 355

^{352 &}quot;Tanesco to go public, be split into three firms" "The East African", retrieved 01 December 2014.

^{353 &}quot;Tanesco to go public, be split into three firms" "The East African", retrieved 01 December 2014.

^{354 &}quot;Overview" "Ewura" retrieved 2nd November 2014.

^{355 &}quot;Ewura Strategic Plan for 2012/13 - 2016/17" "Ewura" retrieved 2nd November 2014.

Major Functions and Duties

The Authority's functions among others include "licensing, tariff review, monitoring performance and standards with regard to quality, safety, health and environment." The authority is also expected to establish standards for goods and services provided, regulate rates and charges, make rules and monitor the regulated sectors performance.³⁵⁶

In fulfilling its functions, the Authority strives to ensure that it:³⁵⁷

- Promotes effective competition and economic efficiency
- Protects the interests of consumers
- Protects the financial viability of efficient suppliers
- Promotes the availability of regulated services to all consumers including low income, rural-based and disadvantaged consumers
- Protects and preserves the environment, and
- Enhances public knowledge, awareness and understanding of the regulated sectors.

Strategic Plan

EWURA is guided by a four-year Strategic Plan whose objectives are: 358

- To serve as a source of information and framework for reference for all stakeholders so that they can be fully aware of, and as appropriate be engaged in, the processes of efficient and effective delivery of services
- To lay down an agreeable coherent strategic framework of key outcomes and objectives to govern the scheduling and implementation of activities and services which EWURA needs to deliver during the planning period
- $\,\blacksquare\,$ To act as a working tool for the management team; and
- To guide and organise operational inputs to achieve the outputs for each annual operating plan

^{356 &}quot;Ewura Strategic Plan for 2012/13 - 2016/17" "Ewura" retrieved 2nd November 2014.

^{357 &}quot;Overview" "Ewura" retrieved 2nd November 2014.

^{358 &}quot;Ewura Strategic Plan for 2012/13 - 2016/17" "Ewura", retrieved 2nd November 2014.

Management

The Authority is run by Director-General who oversees daily operations. The Director-General is assisted by heads of different departments and divisions. EWURA has seven divisions: Electricity, Petroleum, Natural Gas, Water and Sewerage, Legal Services, Regulatory Economic, and Corporate Affairs. Like many other government authorities, EWURA has Board of Directors whose chairperson is appointed by the President of the United Republic of Tanzania. 359

Natural Gas-related Activities

EWURA regulates mid- and down-stream natural gas activities on Mainland Tanzania. These activities include processing, transportation, storage and distribution. Related infrastructure such as gas processing plants, transmission and distribution pipelines also fall under the Authority's regulatory activities and are inspected on the ground. The Authority plans to introduce standards and codes for regulating the natural gas. Turrently, the Tanzania Bureau of Standards (TBS) has no specific standards, and this gap allows companies to use negotiated standards. However, as EWURA participated in the formulation of the National Natural Gas Policy of 2013, See which focuses on the mid- and down-stream sectors, it would be easy to develop binding standards for the sector as the policy is in operation.

In June 2015, the Regulator is expected to develop a "Natural Gas least cost investment framework".³⁶⁵

Challenges in Regulating the Sector

1. Regulatory Framework

The challenges EWURA faced during the implementation of the second Strategic Plan (2008-11) include the absence of a natural gas

^{359 &}quot;Board of Directors" "Ewura" retrieved 2nd November 2014.

^{360 &}quot;Annual Report 2013" "Ewura" retrieved 2nd November 2014.

^{361 &}quot;Ewura Strategic Plan for 2012/13 - 2016/17" "Ewura" retrieved 2nd November 2014.

^{362 &}quot;Standards" "Ewura" retrieved 2nd November 2014.

^{363 &}quot;Annual Report 2013" "Ewura" retrieved 2nd November 2014.

^{364 &}quot;Energy" "Clyde & Co" retrieved 2nd November 2014.

^{365 &}quot;Ewura Strategic Plan for 2012/13 - 2016/17" "Ewura" retrieved 2nd November 2014.

policy (adopted in 2013), oil and gas legislation and master plan (still at the ministerial level).³⁶⁶

2. Infrastructure

Insufficient gas processing, lack of transmission infrastructure, and high industry demand currently limits the utilisation of Natural Gas. The new Mnazi-Bay-Dar-es-Salaam Pipeline is expected to take pressure off the existing infrastructure. According to the Authority, wells maintenance poses a future threat to production as no spare wells are available.³⁶⁷

3. Safety

According to EWURA, there are several safety challenges in regulating the sector. These include encroachment on the pipeline areas, conducting businesses around the pipeline area, etc. 368

5.5 Rural Energy Agency (REA) of Tanzania

The Rural Energy Agency (REA) was established by the Act of Parliament No. 8 of 2005 as an autonomous body under the Tanzanian Ministry of Energy and Minerals of the United Republic of Tanzania (URT). The main function of REA is to promote and facilitate improved access to modern energy services in the rural areas of Mainland Tanzania. REA became operational in October 2007.³⁶⁹

Functions

The majority of rural Tanzanians have no access to modern energy services (Energy Access in Tanzania). The purpose of REA is to promote and facilitate rural energy development by working in partnership and collaboration with the private sector, Non-Governmental Organisations (NGOs), Community-Based Organisations (CBOs), and government agencies. 370

^{366 &}quot;Ewura Strategic Plan for 2012/13 - 2016/17" "Ewura" retrieved 2nd November 2014.

^{367 &}quot;Annual Report 2013" "Ewura" retrieved 2nd November 2014.

^{368 &}quot;Annual Report 2013" "Ewura" retrieved 2nd November 2014.

^{369 &}quot;About us" "REA" retrieved 16 February 2015.

^{370 &}quot;About us" "REA" retrieved 16 February 2015.

REA's main functions are the following: 371

- Promoting, stimulating, facilitating and improving modern energy access for productive uses in rural areas to stimulate rural socioeconomic development
- Promoting rational and efficient production and use of energy, and facilitating the identification and development of improved energy projects and activities in rural areas
- Financing eligible rural energy projects through the Rural Energy Fund
- Preparing and reviewing application procedures, guidelines, selection criteria, standards and terms and conditions for grants allocation
- Building capacity and providing technical assistance to project developers and rural communities, and
- Facilitating the preparation of bid documents for rural energy projects.

Organisational Structure

Board

Both REA and the Rural Energy Fund are governed by the Rural Energy Board. The Board comprises representatives from the Ministry of Finance; Ministry of Energy and Minerals, Prime Minister's Office - Regional Administration and Local Governments (PMO-RALG), the Private Sector, the Tanzania Bankers Association, the Civil Society, Development Partners and Consumers.³⁷²

Management

REA is headed by the Director-General, currently Dr. Lutengano Mwakahesya, who is the chief executive officer for the Agency as well as the Rural Energy Fund. REA's management structure is composed of two directorates; one responsible for Finance and Administration and the other for Technical Services.³⁷³

^{371 &}quot;About us" "REA" retrieved 16 February 2015.

^{372 &}quot;REA Annual Report for the Financial Year ended June 30th, 2013" "REA", retrieved 16 February 2015.

Recent activities

REA, together with the Tanzania Electric Supply Company (TANESCO), is currently implementing the second phase of the Rural Electrification Project. The project is expected to end in June 2015, with 1,500 villages expected to be connected to the national grid. Under the project, citizens are only required to pay Tanzanian Shillings 27,000 compared to the normal cost of being connected to the national grid of Tsh177, 000 or more, depending on the location. The completion of the second phase will allow the Tanzania Government to embark on the implementation of the third phase from early July 2015. The primary aim of the project is to improve the people's welfare in the rural areas through a reliable supply of power.³⁷⁴

5.6 Tanzanian Ministry of Finance

Background

The Ministry of Finance (MoF) manages the overall revenue, expenditure and financing of the Government of the United Republic of Tanzania (URT). It provides the Government with advice on the country's broad financial affairs in support of economic and social objectives. ³⁷⁵ The Bank of Tanzania (BoT) and the Tanzania Revenue Authority (TRA) are some of the established institutions that work under the MoF.

The MoF was established by Act of Parliament No. 11 of 1995, and started its operations in 1996. It is regulated by law and is responsible for administering impartially various taxes of the Central Government. ³⁷⁶ The revenue authority is an executive agency under the MoF.³⁷⁷

^{374 &}quot;Tanzania: Rural Power Project II to Take Off June" All Africa", retrieved 16 February 2015.

^{375 &}quot;About the Ministry" "Ministry of Finance" retrieved 06 February 2015.

^{376 &}quot;About TRA" "Tanzania Revenue Authority" retrieved 06 February 2015.

^{377 &}quot;Roles and Functions of Ministry of Finance" "Ministry of Finance", retrieved 06 February 2015.

Roles and Functions of the MoF

Budget Preparation and Expenditure

The MoF prepares and presents the National Budget to the Parliament in June every year. The Budget contains a master plan for the Government's fiscal revenue, expenditure, financing policies and plans to be undertaken in the stipulated fiscal year. Expenditure allocations to different Government institutions are determined by the MoF.

Revenue Collection and Fiscal Developments

Certain levies and fees are collected as revenue by the Ministry of Finance itself and by other Government Ministries and institutions such as the in form of royalties from exploration and production companies and fees for geological mapping.

Policy and Legislation

The Ministry formulates and manages revenue policies and legislations that are presented to Parliament. Its other roles include developing tax policy and legislation and managing Government borrowings in financial markets, developing regulatory policy for the country's financial sector in co-operation with the BoT and representing Tanzania in international financial institutions.³⁷⁸

MoF and Natural Gas Development

According to the 2012/2013 budget, the Government of Tanzania prioritised investing in the energy infrastructure, specifically the construction of the Mtwara-Dar es Salaam Gas Pipeline.³⁷⁹ Also drawn are policies on promoting national income to mitigate the high cost of living through the development of alternative energy production using natural gas and exempting on various equipment relating to natural gas that will be used for the storage, transportation, and distribution of natural gas from Value Added Tax (VAT).³⁸⁰ On behalf of the MoF, the TRA reported that tax exemptions for multinational

^{378 &}quot;About the Ministry" "Ministry of Finance" retrieved 06 February 2015.

^{379 &}quot;Government Budget For Financial Year 2012/2013 Citizens' Budget Edition" "Government of Tanzania" retrieved 06 February 2015.

^{380 &}quot;Government Budget For Financial Year 2012/2013 Citizens' Budget Edition" "Government of Tanzania" retrieved 06 February 2015.

companies engaged in exploration of natural gas and oil —both offshore and onshore the Indian Ocean— stood at US\$ 58.82 million (Tsh100 billion) whereas projects undertaken by state-owned firms enjoyed the waiver of US\$ 86.47 million (Tsh.147 billion). ³⁸¹ The MoF, as a stakeholder in oil and gas development, is tasked with setting up a state-owned fund - the Tanzania Natural Gas Revenue Fund - now that Tanzania is set to increase its revenue by US\$ 3 billion a year from more than 50.5 trillion cubic feet of proven natural gas reserves. The fund will be established by a specific legislation. The goal is to ensure that the legislation has sound institutional and governance sections. Therefore, the law should provide a clear structure and legal form of the Gas Fund, including how it would interact with the BoT, the MoF and any public auditing body. ³⁸² ³⁸³

Moreover, there is a need for the MoF and the government to formulate legislation on Petroleum Revenue Management akin to other oil and gas producing countries. Delays in the enactment of the law will have serious repercussions for the country's income as it can result in oil and gas producing companies not paying any tax or paying very little, especially if the tax legislation is not synchronised with the Production Sharing Agreements (PSAs).³⁸⁴

Monitoring and Evaluation

The Ministry monitors fiscal developments during the year and reports to Parliament. Any deviation from the master plan is then identified by the Controller and Auditor General (CAG) who files a report on the non-conformity after the expiry of the fiscal term. ³⁸⁵ In the oil and gas sector, the main responsibility for monitoring and evaluation framework is vested in the hands of the Tanzanian Ministry of Energy and Minerals (MEM), but the MoF, as a key stakeholder, is part of a co-ordination mechanism established to foster transparency and rightful expenditure of devolved funds. ³⁸⁶

^{381 &}quot;Tanzania tax breaks anger legislators" "Business Week" retrieved 06 February 2015.

^{382 &}quot;The proposed natural gas revenue fund" "Clyde& Co" retrieved 06 February 2015.

^{383 &}quot;A Snapshot of Tanzanian natural gas: The story so far" "Norton Rose Fulbright", retrieved 06 February 2015.

^{384 &}quot;Stakeholders want petroleum revenue management law" "IPP Media" retrieved 06 February 2015.

^{386 &}quot;The National Petroleum Policy Of Tanzania (Draft 2 -2014)" TPDC" retrieved 06 February 2015.

5.7 Bank of Tanzania

Overview

In December 1965, the Tanzania National Assembly passed the Bank of Tanzania (BoT) Act that led to the establishment of the Central Bank of Tanzania—the BoT, which was launched by President Julius Nyerere in June 1966. Following the 1967 Arusha Declaration, the Banks' Policy was set to support Tanzania's national agenda regarding the control of the use of foreign exchange in the country. In 1978, the BoT Act was amended due to the occurring economic crisis, empowering the Central Bank to inspect and supervise other financial institutions.³⁸⁷

Currently, the Bank focuses on containing inflation to retain price stability. This mandate is reflected in the Bank of Tanzania Act (1995) and it is also backed up by the Bank of Tanzania Act (2006).³⁸⁸

Functions

In its Monetary Policy, the BoT considers its main functions as to:

- Steadily and in an acceptable way increase the markets' money supply
- Insure interest rates are at least above the inflation level
- Have in place foreign currency reserves that allow the Bank to smoothen out short-term fluctuations in the foreign exchange market and serve as a backup in times of crisis
- Encourage well-functioning financial markets as well as protect and develop well-managed banking institutions
- Have a relatively stable exchange rate for the national currency
- Expand domestic credit without overly pressuring production recourses and in consistency with the Banks' Money Supply objectives.³⁸⁹

^{387 &}quot;History" "Bank of Tanzania" retrieved 25 February 2015.

^{388 &}quot;History" "Bank of Tanzania" retrieved 25 February 2015.

^{389 &}quot;History" "Bank of Tanzania" retrieved 25 February 2015.

Management in Oil and Gas Industry

The involvement of the Central Bank in the oil and gas industry is stipulated in two policy documents, namely the National Natural Gas Policy of Tanzania and the Local Content Policy of Tanzania for Oil and Gas Industry. In the Gas Policy of 2013, the BoT's responsibility in the oil and gas industry is to "establish monetary conditions able to contain a potentially rising inflation fuelled by the natural gas industry". The Policy establishes three main functions that the BoT should fulfil:

- Ensuring that natural gas activities do not cause negative impacts on both monetary policy and macro-economic stability
- Advising the Government on the impact of the natural gas subsector, as it evolves, on the national economy, and
- Managing and administering the Natural Gas Revenue Fund established in the Policy. 390

The Local Content Policy identifies the BoT as one of the key institutions in the implementation of the policy. The Policy assigns two functions to the Bank of Tanzania: Monetary function and local content function. Specifically, it states that the central bank will establish monetary conditions conducive to price stability over time as the oil and gas industry may fuel inflation in the country if favourable conditions are not timely put in place; moreover, the BoT is responsible for releasing and monitoring expenditure of requested for and approved funds for the local content purpose. ³⁹¹

Different Views

The Development Partners Group (DPG) in Tanzania suggests that the management of the Natural Gas Revenue Fund should be conducted in a transparent and accountable manner, including how the money will be used to benefit local communities. The former Revenue Watch Institute (RWI)—now the Natural Resource Governance Institute (NRGI)— and the Vale Columbia Centre on Sustainable International Investment (VCC) note in their analysis of sovereign wealth funds (gas revenue funds) that the operational manager (in this case the BoT)

^{390 &}quot;National Natural Gas Policy Tanzania 2013" "Government of Tanzania" retrieved 25 February 2015.

^{391 &}quot;Local Content Policy Draft One 2014" "Ministry of Energy and Minerals" retrieved 25 February 2015.

should be subjected to strict legislation over the use and investment of the Fund's assets. They suggest that responsibilities should be clearly devided between the ultimate authority over the Fund, the Fund manager, the operational manager and different departments under the operational manager.

The RWI suggests risk limitation by putting in place a maximum percentage that the operational manager can invest in assets such as real estate and infrastructure. Investment abroad of the Fund's assets is recommended so to use the Fund itself as a saving option, and the investment returns for spending. Furthermore, it is recommended that external independent bodies, in the case of Tanzania, Parliament or the Controller and Auditor General (CAG), are given a formal role of overseeing the Fund.³⁹²

BoT's Structure

The Board of Directors is the Bank's highest decision-making body, which is responsible for determining its policies, approving its budget and allocating its operations' profits. The Board consists of a Governor (Chairperson), three Deputy Governors, four non-executive Directors, representatives of the Mininstry of Finance and Principal Secretary to the Treasury of the Revolutionary Government of Zanzibar and Secretary to the Board. The Governor determines one of the three deputies to serve as Deputy Chairperson.³⁹³

^{392 &}quot;Comments on the draft Gas Policy" "Development Partners Group Tanzania" retrieved 25 February 2015.

^{393 &}quot;Board of Directors" "Bank of Tanzania" retrieved 25 February 2015.

International Oil and Gas Companies

6.1 Corporate Social Responsibility (CSR) in Tanzania's Oil and Gas Industry

Overview

In the Oil and Gas Industry, Corporate Social Responsibility (CSR) refers to voluntary actions undertaken by oil and gas companies to either improve the living conditions of local communities or reduce the negative impacts of oil and gas projects in areas where they operate. Voluntary actions are those that go beyond legal obligations, contracts, and licence agreements. CSR programmes usually invest in social infrastructure, building social and human capital. Over the decades, CSR has been touted as a driver of sustainable development. It is widely believed that long-term economic growth in societies requires an effective implementation of the responsible business practice principles. Our process of the property of the responsible business practice principles.

CSR in Oil and Gas Tanzania

Although the concept of CSR in the oil and gas industry is relatively new in Tanzania, it has been generally practised in other sectors of the economy such as mining for years now. A number of initiatives that affirm its presence in the country have been carried out by both public and private business institutions. Significantly, the importance of CSR has been captured in the National Natural Gas Policy of Tanzania. The policy states that the government shall "ensure there is a contractual obligation to all investors and contractors in the natural gas activities to undertake locally prioritised community development programmes, and ensure that companies in the natural

^{394 &}quot;Corporate Social Responsibility and Development Cooperation" "GIZ" retrieved 10 November 2014.

^{395 &}quot;A new era of sustainability: UN Global Compact - Accenture CEO study 2010" "UN Global Compact" retrieved 10 November 2014.

^{396 &}quot;Oil, gas sector not standards - compliant: study " retrieved 10 November 2014.

gas industry submit credible Corporate Social Responsibility action plans to the appropriate authority." 397 However, studies on nine (9) oil and gas exploration companies operating in Tanzania indicate a general lack of compliance with international standards regarding the preparation of CSR policies. This, among others, includes lack of community involvement at the grassroots in the preparation of CSR as communities must be involved at every stage in the best CSR practice. 398

The government now plans to introduce a CSR Act to encourage legal businesses, including multinational corporations, to contribute to community projects. Currently, the choice is largely left up to the companies themselves.³⁹⁹

CSR Activities by Companies

PanAfrican Energy Tanzania

Since 2005, PanAfrican energy has been developing and implementing health and education programmes that have improved the health of SongoSongo islanders, provided education to the youths, trained and equipped new teachers. Additionally, the company's employees have volunteered in providing life skills training on the prevention of HIV/AIDS and the dangers of drug and alcohol abuse to local communities. 400

BG Group

BG Group has teamed up with the Tanzanian government and an international development charity to help young people in the southern regions of Mtwara and Lindi. This partnership between BG Group, the government body Vocational Education and Training Authority (VETA), and Volunteer Service Overseas (VSO) is aimed at benefiting about 840 students in both regions. ⁴⁰¹ BG also assists local communities with waste management. The Supply Base Solutions waste facility near Mtwara treats all the waste generated by the

^{397 &}quot;The National Natural Gas Policy 2013" "Government of Tanzania", retrieved 10 November 2014.

^{398 &}quot;The National Natural Gas Policy 2013" "Government of Tanzania", retrieved 02 September 2014.

^{399 &}quot;Tanzania Wants to Make CSR Compulsory" "All Africa" retrieved 10 November 2014.

 $^{400\ {\}rm ``Social\ Responsibility''\ ''Panafrican\ Energy''\ retrieved\ 10\ November\ 2014.}$

^{401 &}quot;Training young people in Tanzania" "BG" retrieved, November 10 2014.

oil and gas companies operating at the Mtwara port as well and many others. 402 BG has an office that works to establish a grievance mechanism through which the community can air concerns with the Group in a way that gives them confidence that their concerns will be addressed. 403

Statoil

In an effort aimed at strengthening capacity-building in the oil and gas sector, Statoil Tanzania is currently financing 31 Master's students and one doctorate degree student mainly in petroleum engineering, geo-science and finance in Norway and Tanzania. Statoil also provides solar lanterns in rural Tanzania, and provides malaria vaccines through the Malaria Vaccine Initiative's Vaccine Advocacy Fellowships and training of medical staff. Statoil is also conducting training for 40 youths in Mtwara in Business Management Skills.

Maurel & Prom

Maurel & Prom is involved in developing local communities through drilling of water wells and road maintenance. The company has also bought equipment for a health clinic at Mkuranga.

Afren Tanzania

Afren Tanzania has, among other things, assisted in the construction of the Mayomboni Village Water Project which will provide water to more than 2,000 people. It is also planning to construct a nurse's home at Mwandusi Village (Tanzania).⁴⁰⁶ Afren Tanzania Limited, in collaboration with the University of Dar es Salaam (UDSM), has a scholarship scheme that has benefited five (5) undergraduate and two (2) postgraduate students in the 2014/2015 academic year.⁴⁰⁷

^{402 &}quot;Training young people in Tanzania" "BG", retrieved, November 10 2014.

^{403 &}quot;Social programmes in Australia, Tanzania and Trinidad and Tobago" "BG" retrieved 10 November 2014.

^{404 &}quot;Statoil donates 125 desks to two primary schools in Mtwara Region", "Masatu Media" retrieved 10 November 2014.

^{405 &}quot;Corporate Social Responsibility Tanzania" "Exxon Mobil" retrieved 10 November 2014.

^{406 &}quot;Kenya, Tanzania, Madagascar and Seychelles" "Afren" retrieved 10 November 2014.

^{407 &}quot;UDSM & AFREN 5 Undergraduate and 2 Postgraduate Scholarships", "Wanabidii Blog" retrieved 10 November 2014.

Presidential Award on Corporate Social Responsibility and Empowerment

On 28th February 2012, President Jakaya Kikwete launched the Presidential Award on the Extractive Industry Corporate Social Responsibilities and Empowerment. In his speech, the president noted that the award "is an important milestone in the history of the extractive industry in Tanzania. It is intended to align corporate policies and practices of companies in the extractive industry with sustainable development. It is about making local communities where companies operate benefit from the operations of the companies. And, it is about the companies benefitting from the friendliness, harmony, understanding and cooperation that will ensue with the government and the people in the areas where the companies operate."

The President highlighted the need for extractive companies to outsource goods and services locally saying that "companies should make it their policy to engage local companies and local people." He also underscored the nature of relationship between large and small companies noting that by helping small companies to progress, large companies are also benefitting. The President said he was happy with the key indicators to be used to evaluate the scores for the Award and considered the following indicators very pertinent:

- 1. Community well-being and sustainability;
- 2. Human resource development and training;
- Local industry participation;
- 4. Community safety, water and environment;
- 5. Social infrastructure such as housing and health services; and
- 6. Infrastructure development such as roads, electricity etc. 409

The following companies emerged winners in various categories of the 2014 award: North Mara Gold as overall winner and scooped the large scale mining company; Small Scale Mining firm (Busorwa Mining Ltd); Oil and Gas Production (Songas Ltd); Mineral Exploration

^{408 &}quot;JK launching the Presidential Award on the Extractive Industry Corporate Social Responsibility and Empowerment Programme (CSRE)" "Global Publishers" retrieved 25 August 2015.

^{409 &}quot;JK launching the Presidential Award on the Extractive Industry Corporate Social Responsibility and Empowerment Programme (CSRE)" "Global Publishers" retrieved 25 August 2015.

(Mantra Tz); Medium Scale Mining Award (Shanta Mining (T) Ltd); Buzwagi Gold Mine (infrastructure award), Statoil Tanzania (tertiary education development) and Geita Gold Mine (GGM) (secondary education development).⁴¹⁰

6.2 Afren

Туре	Public Limited Company
Traded as	LSE: AFR
Founded	2004
Headquarters	London (UK)
Key People	Mr Osman Shahenshah (CEO)
Products	Oil and gas exploration.
Revenue	US\$ 1499 million
Employees	4857
Website	www.afren.com

Overview

Founded in 2004, London-based Afren is an international oil company engaged in Africa. It owns assets in 11 countries including Nigeria, Ghana, Cote d'Ivoire, Sao Tome & Principe and the JDZ, Congo Brazzaville, South Africa, Ethiopia, Kenya, Madagascar, the Seychelles, and Tanzania.⁴¹¹

In 2014 Afren became an EITI supporting company.⁴¹²

6.3 Afren in Tanzania

Founded in 2004, Afren is an independent Oil and Gas Company listed on the London Stock Exchange (LSE), with operations in several countries and a diversified portfolio of production, development appraisal and exploration assets. 413 Concentrating its activities in Africa, Afren is present in Congo (Brazzaville), Ivory Coast, Ethiopia,

^{410 &}quot;State issues guidelines to monitor, evaluate extractive sector", "IPPMedia" retrieved 25 May 2015.

^{411 &}quot;Afren Plc" Bloomberg, retrieved 14 February 2011

⁴¹² Afren becomes EITI supporting firm" off shore energy today, retrieved 30 April 2015

^{413 &}quot;Case Study: Afren" ISN, retrieved 17 October 2014.

Madagascar, Ghana, Kenya, South Africa, Nigeria and the Seychelle. Other operations are in the Kurdistan region of Iraq.⁴¹⁴

Africa Operations

Africa is a crucial source of oil to some of the world's most commodityhungry economies. In recent years, the continent has attracted significant investments from independents looking to capitalise on this proven resource base. 415 One of the most successful entrants in recent years has been the London-listed independent Afren which, since its founding in 2004, has established itself as one of the leading upstream oil companies, in Africa. 416 It operates in Congo Brazzaville (La Noumbi), Ivory Coast (CL-523 and CL-525), South Africa (Block-2B), Ghana (Keta Block), and Nigeria (Okoro field, Ebok field, blocks OML115, OML 26, OPL310 and OML 113). Others are in the Joint Development Zone (JDZ), owned by Nigeria and Sao Tome and Principe. 417 Being a pan-African company, Afren has a strong presence of local people on its Board and in senior management. 418 Besides having a good number of positions held by people from the continent the company has established partnerships with indigenous companies, national oil companies and governments, some of which include Eni in Ghana (Keta Block) and NPDC on the OML 26 Block in Nigeria.419

East Africa Operations

In East Africa, the company's portfolio of assets covers an expansive area in excess of 82,000 square kilometers in basins that have had proved hydrocarbons. 420 Afren made a strategic entry into East Africa in 2010 when it bought Dubai based Black Marlin Energy thus establishing a multi country East African platform including Ethiopia, Kenya, Madagascar and the Seychelles. 421 Through its regional and wholly owned firm Afren EAX Limited, Afren Plc has interests in Kenya in Block-1 on the western margin of the Mandera-Lugh Basin,

^{414 &}quot;Operations" Afren, retrieved 25 September 2014.

^{415 &}quot;A partner for global distribution" World Finance, retrieved 25 September 2014.

^{416 &}quot;A partner for global distribution" World Finance, retrieved 25 September 2014.

^{417 &}quot;Financial Reports-Afren Plc" Afren, retrieved 17 October 2017.

^{418 &}quot;Financial Reports-Afren Plc" Afren, retrieved 17 October 2017.

^{419 &}quot;Financial Reports-Afren Plc" Afren, retrieved 17 October 2017.

^{420 &}quot;Financial Reports-Afren Plc" Afren, retrieved 17 October 2017.

^{421 &}quot;Afren to Acquire Black Marlin Energy" Rigzone, 2 June 2014

Blocks-L17 and L18 in the Lamu Coastal Basin and Block-10A in the Anza Basin. Whereas other working interests include Areas A and B of the Seychelles microcontinent, Blocks 7 and 8 of the Ogaden Basin in Ethiopia and Block 1101 on the eastern flank of the Ambilobe Basin in northern Madagascar. ⁴²² Whereas its working interests in the Seychelles are in Areas A and B, at exploration stage in the microcontinent ⁴²³, Ethiopia in Blocks 7 and 8 in the Ogaden Basin, under the same PSC and Madagascar in Block 1101, in the eastern flank of Ambilobe Basin onshore, northern Madagascar.⁴²⁴

Operations in Tanzania

Afren entered the country's fast growing gas and oil sector in 2011 after it bought a 74 per cent working interest in the Tanga Block⁴²⁵, then wholly owned by Petrodel Resources which now retains a 26 per cent interest,⁴²⁶ having been awarded the block during the country's bidding round of 2005/2006.⁴²⁷ The Tanga Block lies south of, and is linked to, Afren's 100 per cent owned and operated Blocks L17 and L18 in Kenya.⁴²⁸ According to Afren Environmental Impact Assessment (EIA), surveys and drilling forecasts have been completed for both Chungwa-1 well and Mkonge-1 well (the other well on the block), which are both ready for drilling.⁴²⁹

6.4 Beach Petroleum

Beach Energy Limited was established in the early 1960s by the late Dr. Reg Sprigg, an Australian oilman, geologist, explorer and conservationist. 430

^{422 &}quot;Afren Plc: Operations: Kenya: Block L17/L18" Afren, retrieved 17 October.

^{423 &}quot;Afren Plc: Operations: Seychelles" Afren, retrieved 17 October 2014.

^{424 &}quot;Afren Plc:Operations: Madagascar" Afren, retrieved 17 October 2014.

^{425 &}quot;Afren Tangos Into Tanzania's Tanga Block" Petroleum Africa, 25 March 2011

^{426 &}quot;Tanga Most Likely to Join Gas, Oil Producers Club" Daily News, 23 June 2013

^{427 &}quot;Tanzania Extends Afren's Oil and Gas Licence" Oil Review Africa, 18 July 2013

^{428 &}quot;UK's Afren In US\$ 200 Million Exploration Deal In Dar" The East African, 4 January 2014

^{429 &}quot;Afren Plc:Operations:Tanzania: Tanga Block" Afren, retrieved 17 October 2014.

^{430 &}quot;Our Business" "Beach Energy", retrieved 29th September 2014.

Global Operations

The company has interests in more than 300 exploration and production tenements in Australia and globally. 431 An overview of its global operations shows that it operates in Australia, New Zealand, Egypt, Tanzania and Romania. 432

Africa's Operations

In 2008, the company acquired a 20 percent working interest in the North Shadwan concession through a farm in the Gulf of Suez.⁴³³

In August 2010, Beach acquired a 22 percent interest in the Abu Sennan concession in the Western Desert of Egypt and another 15 percent interest in the Mesaha Area concession in Southern Egypt.⁴³⁴

6.5 Beach Petroleum in Tanzania

In 2010, Beach Petroleum entered into a Production Sharing with the Tanzania Petroleum Development Agreement Corporation (TPDC) for the Lake Tanganyika South block. 435 In 2012, Beach Energy Limited commenced a 1,800 kilometre 2Dseismic over its Lake Tanganyika South Block.436

At the end of August of that year, it was reported that an Australian company exploring for oil on the Tanzanian side of Lake Tanganyika may target potential areas for drilling in six months. 437

^{431 &}quot;Opponents of Four Kilometre Shale Gas Wells Near Penola Tell Beach Energy to Pack and Go" "ABC.net" retrieved 30th September 2014.

^{432 &}quot;http://www.beachenergy.com.au/irm/content/overview-of-operations1. aspx?RID=258&RedirectCount=1 Overview of Operations]" "Beach Energy" retrieved 29th September 2014.

^{433 &}quot;Aussie's Beach in The Gulf of Suez" "Petroleum Africa" retrieved November 9th 2014.

^{434 &}quot;Our Business Egypt" "Beach Energy" retrieved 29th September 2014.

^{435 &}quot;Beach Petroleum Lands in Tanzania" "Petroleum Africa" retrieved November 18th 2014.

^{436 &}quot;Beach Energy Commences Seismic On Lake Tanganyika" "ABN News Wire", retrieved 29th September 2014.

^{437 &}quot;Survey Shows Lake Tanganyika's Oil 'Potential' in Tanzania" "VOA News", retrieved 29th September 2014.

Beach Energy said that the lake had the potential for large discoveries and there were clear signs of a working petroleum system on the Congolese side. ⁴³⁸ After completion of an initial survey of the block in August 2012, Beach Petroleum declared that their exploration block potentially contained 200 million barrels of oil. ⁴³⁹

Farm out of Lake Tanganyika Block

In mid-2014, Beach Energy Limited relinquished (farm-out) 70 percent of its 100 percent working interest in the Lake Tanganyika South Block to Woodside Petroleum Limited subject to the approval of the Tanzania government. 440

On its part, Woodside Petroleum Ltd declared that it had farmed-in to the 7200sq km Lake Tanganyika South Block. 441

6.6 BG Group

Туре	Public Limited Company
Traded as	LSE: BG GRP
Founded	1997 (Demerger of Centrica) 2000 (Demerger of Lattice Group from BG Group)
Headquarters	Reading, UK
Key People	Andrew Gould (Chairman), Helge Lund (Chief Executive)
Revenue	US\$ 19.289 billion (2014)
Total Operating Profit	US\$ 6.537 million (2014)
% change over previous year	-14%
Total Assets	US\$ 61.846 billion (2014)
Employees	5,200 (2015)
Website	www.bg-group.com

^{438 &}quot;Survey Shows Lake Tanganyika's Oil 'Potential' in Tanzania" "VOA News" retrieved 29th September 2014.

^{439 &}quot;http://www.beachenergy.com.au/irm/content/tanzania.aspx?RID=265 Our Business Tanzania]" "Beach Energy" retrieved 29th September 2014.

^{440 &}quot;Beach Energy Limited-Farm Out of Lake Tanganyika, Tanzania to Woodside-Announcement" "TheAge.com" retrieved 30th September 2014.

^{441 &}quot;Woodside farms-in to Lake Tanganyika South Block" "OE Digital", retrieved 29th September 2014.

Global Snapshot

BG Group is a British multinational natural gas company, which is one of the top-20 global oil and gas groups, according to Reuters. It is also the UK's third largest oil and gas producer and was listed 44th in the Global Energy Company Ranking in 2014.

BG Group's origins trace to the state-run British Gas Corporation. The Corporation was privatised in 1986 and renamed British Gas plc; that company then split into BG plc and Centrica in 1997. In December 1999, BG plc completed a financial restructuring which resulted in the creation of a new parent company, BG Group plc.⁴⁴⁵

With headquarters in the United Kingdom, it operates in more than 25 countries across Africa, Asia, Australia, Europe, North and South America. BG Group produced about 680,000 barrels of oil equivalent a day (boe/d) in 2014.⁴⁴⁶ In 2014 it had total proven reserves of around 3 billion barrels of oil equivalent about half of which lie in Egypt and the United Kingdom.⁴⁴⁷

Company Report Highlights

BG Groups Full Year Results⁴⁴⁸ reveal that the company's total operating profit decreased by 14 percent to US\$ 6.5 billion in 2014, mainly due to a 4% decrease in production volumes, combined with higher operating costs and depreciation in Upstream, lower oil and liquids pices that were not fully hedged, and a higher cost of supply in LNG.⁴⁴⁹

BG Group in Gaza

BG Group is at the center of a dispute over the exploitation of a gas field offshore the Gaza Strip, in which it is the main shareholder. The Group and its partner, the Consolidated Contractors International Company (CCC), were initially granted oil and gas exploration

^{442 &}quot;BG names industry veteran Finlayson as CEO" Reuters, 13 December 2012.

^{443 &}quot;Argentina Wins Appeal in BG Group MEtrogas Bankruptcy Case" Bloomberg, 17 January 2012.

^{444 &}quot;Global Engery Company Ranking" platts Top250, retrieved 3 June 2015.

^{445 &}quot;Demerger History" BG Group, retrieved 7 March 2013.

⁴⁴⁶ Annual Report 2014" BG Group plc.

^{447 &}quot;What Shell Oil Gets From BG Group" Forbes, 6 June 2015.

^{448 &}quot;Fourth Quarter & Full Year Results 2011" BG Group plc.

^{449 &}quot;Annual Report 2014" BG Group plc.

access in 1999 through the Palestinian Authority (PA). Since the Group successfully drilled two wells with reserves of approximately 1.4 trillion cubic feet in 2000, there has been political controversy between the Israeli government, the PA, and Gaza ruling Hamas over production, consumption and revenues.⁴⁵⁰

In 2007, BG Group stopped negotiations with the Israeli government for the gas sales from the Gaza Marine field and closed its office in Israel in 2008.⁴⁵¹ According to a leaked US diplomatic cable from 2008, a senior BG Egypt official said the company didn't expect any movement in the near future on the development of the gas field "in light of Israeli intransigence on price, and political developments in Gaza".⁴⁵².

In 2013 Israeli economic daily Globes reported that BG Group is holding "secret talks" on the possible development of the Gaza-Marine offshore gas field. 453

Takeover by Shell

In April 2015 Royal Dutch Shell announced a deal to buy BG Group in a cash and stock deal worth US\$ 69.6 billion. Under the terms of the deal, BG Shareholders will receive 383 pence in cash for each BG Share and 0.4454 Shell B shares, a 50 per cent premium to BG's closing share price on the day of the agreement of 910.4 pence. Post closing, BG shareholders will hold 19 per cent of the enlarged company, while the remaining will be held by Shell shareholders.

Shell expects the merger to generate pre-tax synergies of approximately US\$ 2.5 billion per annum and has also identified further significant opportunities. According to Ben van Beurden, CEO of Shell BG will accelerate Shell's financial growth strategy, particularly in deep water and liquefied natural gas. 454

^{450 &}quot;Palestinians missing out on a £2bn energy fortune" The Week,16 February 2009

^{451 &}quot;Areas of Palestinian Authority", BG Group website.

^{452 &}quot;BG Egypt on Gaza Marine Gas Field" WikiLeaks, 1 September 2011.

^{453 &}quot;UPDATE: BG Group in 'secret' talks to develop Gaza-Marine gas field: report" platts.com,6 June 2015

^{454 &}quot;Shell to buy Britain's BG Group for US\$ 69.6 bn" domain-b, 6 June 2015.

Global Reputation

What BG Group says about its corporate citizenship

In 2010 BG Group introduced the annual Sustainability Report, in which it reports on its performance in key areas, including Ethical Conduct, Safety/Health/Security and Environment. BG Group has claimed it is especially concerned with water management, oil spill reponse, biodiversity and its emissions performance.⁴⁵⁵

External memberships and rankings

EITI Supporter Status

BG Group is a supporting company of the Extractive Industries Transparency Initiative. 456

UN Global Compact

BG Group has been an active member of the UN Global Compact initiative since 2005.⁴⁵⁷

6.7 BG Group in Tanzania

BG Group Plc engages in the exploration, development and production of natural gas and oil. Its main area of operation is through upstream and LNG shipping and marketing segments.⁴⁵⁸ Operating in more than 20 countries with a multidisciplinary workforce of more than 5000 workers from 70 nationalities, the firm has a presence on every continent of the world.⁴⁵⁹

Operations in Africa

On the African continent, BG Group operates in Tunisia at the Miskar field and Hasdrubal onshore gas processing facility, 460 while in Egypt it

^{455 &}quot;About this report" BG Group, retireved 6 March 2013.

^{456 &}quot;BG Group Company Profile" EITI, retrieved 6 March 2013.

^{457 &}quot;BG Group Company Profile" UN Global Compact, retrieved 6 March 2013.

^{458 &}quot;BG Group on the Forbes Global 2000 List" Forbes, retrieved 25 September 2014.

^{459 &}quot;BG Group-About us-BG Group at a glance" BG Group, retrieved 18 October 2014.

^{460 &}quot;BG Group-Where we work-Tunisia-Operations" BG Group, retrieved 17 October 2014.

is involved all the way from exploration, development and production to LNG at West Delta Deep Marine (WDDM) and Rosetta.⁴⁶¹

In October 2013, BG president in Tunisia, Michael Rees, noted that the country had become a more reliable place to produce natural gas than Egypt with its political challenges, because the former pays its bills on time and⁴⁶², in October 2014, Egypt paid BG US\$ 350 million to reduce what it owes the Reading based firm to around US\$ 1.2 billion.⁴⁶³

In neighboring Kenya, BG Group operates Block-L10A in partnership with PTT Exploration and Public Company Ltd (PTTEP) and Pancontinental Oil and Gas NL, with interests of 50 per cent, 31.25 per cent and 18.75, respectively and 75 per cent interest in Block L10B.464

BG Group also operates in Madagascar where it holds a 30 per cent interest in Majunga offshore Profond Exploration Block, with the other partners being ExxonMobil Exploration/Production Madagascar Majunga Ltd (50 per cent) and SK Corporation of Korea (20 per cent).⁴⁶⁵

East Africa Operations

East Africa may play host to oil production after BG Group and its partners announced in the second week of June 2014 that they had discovered the presence of the liquid gold off the Lamu basin in Block-I.10A 466

According Pancontinental CEO, Barry Rushworth, the discovery at Sunbird-1 well was the first offshore oil discovery to have ever been reported on the eastern Africa coastal area, stretching from South Africa to the northwestern tip of Somalia.⁴⁶⁷

^{461 &}quot;BG Group-Where-we-work-Egypt-Operations" BG Group, retrieved 17 October 2014.

^{462 &}quot;BG Says Tunisia more reliable than Egypt to gas producers" Bloomberg, 23 October 2013.

^{463 &}quot;Egypt pays US\$ 350 million arrears to BG Group" The National, 6 October 2014.

^{464 &}quot;BG to submit plans after Lamu Oil find" East African, 21 June 2014.

^{465 &}quot;BG Group-Where we work-Madagascar" BG Group, retrieved 18 October 2014.

^{466 &}quot;BG to submit plans after Lamu Oil find" East African, retrieved 21 June 2014.

^{467 &}quot;BG Group finds first East Africa offshore oil column" Oil and Gas Technology, 17 June 2014.

BG Operations in Tanzania

BG Group came to Tanzania in 2010 when it farmed in to Ophir Energy held assets by taking a 60 per cent working interest, and had by the third year (2013) of operations hit nine natural gas discoveries and the trend has continued.⁴⁶⁸

The firm farmed in to Blocks-1(Taachi-well, Mzia-well, Chaza-well, Jodari-1 well, Mkizi-well), Block-3(Papa-well), and Block-4 (Chewa-well, Ngisi-well and Pweza-well), all previously operated 100 per cent by Ophir Energy, since 2007. 469

The two companies have continued to operate the blocks, with the former as the operator, even though this would change for Block-3 when the latter increases its stake in the block after taking over what was held by BG Group. 470

As of September 25th 2014, BG Group has withdrawn from Block-3 stating that the block where gas was discovered in 2012 at the Papa well was not very appealing to the company to proceed to the next stage of development.⁴⁷¹

The rate at which natural gas was being discovered in Tanzania was fast, making the country become a major gas producer and candidate for the possibility of putting up an LNG processing plant in the region, with BG Group being one of the major players in these discoveries in Block-1, 3 and 4 in partnership with Ophir Energy.⁴⁷²

BG Group Tanzania with its partner Ophir Energy, have now invested over US\$ 1 billion in a fast-track exploration appraisal (E&A) programme.⁴⁷³

^{468 &}quot;Taming Tanzania" OE Digital, 1 July 2014.

^{469 &}quot;BG Group to farm in to Blocks 1, 3 and 4 offshore southern Tanzania" Offshore Energy Today, 27 May 2010.

^{470 &}quot;TPDC-Exploration Companies Operating in Tanzania" TPDC, retrieved 18 October 2014.

^{471 &}quot;BG to exit block 3 Ophir considers three train Tanzania LNG" Interfax, 2 October 2014.

^{472 &}quot;Taming Tanzania" OE Digital, 1 July 2014.

^{473 &}quot;BG Group Where we work-Tanzania" BG Group, retrieved 17 October 2014.

BG Group and Local Skills Development

Following the general lack of skilled manpower in the oil and gas sector, Tanzania has through its ministry of energy realised the importance of having the requisite human capital in the gas and oil sector by committing funding to train and educate, locally and abroad, local expertise to fully participate in running the sector.⁴⁷⁴

Minister for Energy and Minerals, Prof. Sospeter Muhongo, says the government has a Marshall plan to have a critical mass of well trained Tanzanians in the nascent gas and oil sector. 475

Taking cue from the government, BG Group says it is committed to contributing positively to the lives, communities and economy of Tanzania, with sponsorship of students being one of the initiatives.⁴⁷⁶

BG Group sponsored two students to do their MA at Newcastle and Dundee Universities, whereby their courses commenced in September 2012.⁴⁷⁷

In 2013 it signed a global partnership agreement with UK registered charity Youth Business International (YBI) to foster youth entrepreneurship, employment, and economic growth in countries where it operates. 478 Under the programme, it is estimated that businesses to be created by the first 15,000 entrepreneurs would, in turn, lead to the generation of 45,000 extra employment opportunities after five years of working together. 479

It also continued to run programmes to promote skills and build employment in Tanzania, (in collaboration with Vocational and Educational Training Authority), 480 and this year (2014) it launched a scheme for international postgraduate scholarships for geosciences

^{474 &}quot;Tanzania: Harnessing Resource Wealth for Sustainable Development" Columbia, retrieved 16 October 2014.

^{475 &}quot;Tanzania: Harnessing Resource Wealth for Sustainable Development" Columbia, retrieved 16 October 2014.

^{476 &}quot;BG Group Where we work-Tanzania" BG Group, retrieved 17 October 2014.

^{477 &}quot;BG Tanzania-Contributing to Society-the Development Partners" DPG Tanzania, retrieved 18 October 2014.

^{478 &}quot;BG Group and YBI announce US\$16 million partnership to help 15,000 young entrepreneurs around the world" ybi, 9 September 2013.

^{479 &}quot;BG Group and YBI announce US\$16 million partnership to help 15,000 young entrepreneurs around the world" ybi, 9 September 2013.

^{480 &}quot;Tanzania faces vocational skills gap in oil and gas sector" Corporate Digest, retrieved 18 October 2014.

engineering by offering 10 scholarships for graduates to study Masters of Science degrees relevant to the oil and gas industry.⁴⁸¹

Early this month (October, 2014), BG committed to continue sponsoring graduates to study for Masters of Science degrees locally at the Nelson Mandela Africa Institute of Science and Technology in Arusha.⁴⁸²

BG Tanzania LNG and Upstream Vice-President, Mr. Adam Prince, said this was the company's ongoing support to build capacity at a local level, which was complimenting BG's international scholarship programme, which affords Tanzanians to study at established UK universities. 483

6.8 Dominion Petroleum

Overview

Dominion Petroleum Limited is an independent energy company with headquarters based in Hamilton, Bermuda. It is devoted to and focuses on exploring for fresh oil and gas reserves in East and Central Africa 484

Global Operations

On February 1, 2012, Dominion Petroleum Limited started operating as a subsidiary of the London-based Ophir Energy Plc.⁴⁸⁵

Africa Operations

In 2010, the company signed a letter of intent with Oil and Gas Exploration Cracow (OGEC), subject to the approval of the Ugandan government for a rig to drill Ngaji-1 on Exploration Area Block 4B (EA4B), Dominion's first exploration well in Uganda.⁴⁸⁶ In October

⁴⁸¹ "Tanzania postgraduate scholarship scheme" BG group, retrieved 16 October 2014.

^{482 &}quot;BG Tanzania to support postgraduate scholarships" Daily News, 7 October 2014.

^{483 &}quot;BG Tanzania to support postgraduate scholarships" Daily News, 7 October 2014.

^{484 &}quot;Dominion Petroleum Limited" "Oilbarrel" retrieved 29th September 2014.

^{485 &}quot;Research Stocks Private Company Snapshot" "Business Week", retrieved 29th September 2014.

^{486 &}quot;Dominion Petroleum Limited Operations Update" "Bloomberg" retrieved 14th November 2014.

2011, the London-listed Dominion Petroleum Limited had exploration licences for oil fields in the Congo, Uganda, Kenya and Tanzania, ⁴⁸⁷ sold a 20 percent stake in deepwater Block 7 in Tanzania to Mubadala Oil & Gas, a division of Abu Dhabi's Investment Fund. 488

East Africa Operations

In 2009, Dominion Petroleum Limited signed a Production Sharing Contract with the Uganda government to explore a 510 square km area.489 Three years later in 2012 Dominion's bid to sell its entire assets in the country to Ophir Energy met stiff opposition from the Uganda government, which said it was not notified of the sale. 490 In 2011, Dominion entered into a Production Sharing Contract (PSC) with the Kenyan Ministry of Energy in Nairobi for Block L9 in the Lamu basin in offshore Kenya.⁴⁹¹ In 2010, a Presidential Decree ratified a PSC for Block 5 in the Albertine Graben area of the Democratic Republic of the Congo (DRC) operated by Dominion's and its partner, Soco International Plc. 492 The Block 5 partnership consists of Dominion Petroleum Congo SPRL with 46.75 per cent, SOCO Exploration Production DRC SPRL holding 38.25 per cent 493, and the state oil company of the DRC Congolaise des Hydrocarbures ("COHYDRO") with a 15 percent stake. 494

6.9 Dominion Petroleum in Tanzania

In 2006, Dominion Oil and Gas Limited, a 100 per cent subsidiary of Dominion Petroleum Limited was awarded an exploration permit for (part) of the Selous basin. 495 Dominion holds three Production

^{487 &}quot;Abu Dhabi Buys Stake in Tanzania Oilfield for US\$ 20million" "Arabian Business" retrieved 29th September 2014.

^{488 &}quot;Abu Dhabi Buys Stake in Tanzania Oilfield for US\$ 20million" "Arabian Business" retrieved 29th September 2014. 489 "Uganda Oil and Gas Information", "Uganda Oil and Gas" retrieved 20th

November 2014.

^{490 &}quot;Government Delays Exit of Dominion Petroleum Company" "Uganda Radio Network, retrieved 20th November 2014.

^{491 &}quot;Dominion Petroleum Mediterranean Oil& Gas-Award of Deepwater Exploration Licence in Kenya" "Reuters" retrieved 20th November 2014.

^{492 &}quot;Dominion Petroleum Limited Operations Update" "Bloomberg" retrieved 14th November 2014.

^{493 &}quot;Dominion Petroleum Limited Operations Update" "mystockybuddy" retrieved 14th November 2014.

^{494 &}quot;Dominion Petroleum Limited Operations Update" "Bloomberg" retrieved 14th November 2014.

^{495 &}quot;Dominion Oil Wins Gas Exploration Block in Tanzania" "Rigzone" retrieved 29th September 2014.

Sharing Agreements (PSAs) in onshore Tanzania, namely Mandawa, Kisangire and Selous. ⁴⁹⁶ These PSAs cover the Mandawa basin and half of the Selous basin (the Selous PSA being in the southern part of the Selous basin) and Kisangire being in the northern part of the Selous basin). Besides the PSAs, Dominion Petroleum also has four licences. ⁴⁹⁷ In 2011, the Tanzania government approved Dominion's sale of 20 per cent of its working interest in deepwater Block 7, thus opening the way for Mubadala Oil & Gas, a division of Abu Dhabi's Investment Fund, to inject US\$ 20 million into exploration activities in the block. ⁴⁹⁸

In accordance with agreed upon terms, the company was expected to spend an estimated US\$ 71 million over the licence period conducting seismic surveys and drilling exploration wells. 499 During the first four years of the first phase, the company was required to drill one well and acquire 500 line kilometres of seismic data. 500

6.10 ExxonMobil

Туре	Public Limited Company
Traded as	NYSE:XOM
Founded	1999
Headquarters	Texas, USA
Key people	Rex Tillerson (Chairman and CEO)
Revenue	US \$394.105 billion (2014)
Net income	US\$ 32.520 billion (2014)
% change on previous year	-0.01%
Total assets	US\$ 349.493 billion (end 2014)
Total equity	US\$ 174.399 billion (end 2014)
Employees	75,300 (end 2014)
Website	www.ExxonMobil.com

 $^{496\,}$ "Tanzania Oil and Gas Status and Trend" "Publish What You Pay" retrieved 29th September 2014.

^{497 &}quot;Tanzania Oil and Gas Status and Trend" "Publish What You Pay" retrieved 29th September 2014.

^{499 &}quot;Dominion Oil Wins Gas Exploration Block in Tanzania" "Rigzone" retrieved 29th September 2014.

^{500 &}quot;Dominion Oil Wins Gas Exploration Block in Tanzania" "Rigzone" retrieved 29th September 2014.

Global Snapshot

In 2014 ExxonMobil placed 2nd in the Fortune 500 list of the largest American corporations ranked by revenue. ⁵⁰¹ It began life as the Standard Oil Company in 1882 and became ExxonMobil in 1999 as an alliance of two of the direct descendants of John D. Rockefeller's Standard Oil Company, Exxon and Mobil. ⁵⁰² The company has several divisions and hundreds of affiliates with names including ExxonMobil, Exxon, Esso or Mobil. ⁵⁰³

At the end of 2014 the company held global proven reserves of 25.3 billion barrels of oil equivalent (boe) 504 and average global net production over 2014 was 3,969 million boe. 505

In 2008, on the back of soaring global oil prices, ExxonMobil became the world's most valuable firm when shares soared by over 40% in a year. ⁵⁰⁶ In 2010 they acquired XTO Energy, a leading developer of unconventional resources including shale oil and gas which requires advanced drilling techniques. ⁵⁰⁷ In August of 2011, Exxon secured a US\$ 3.2 billion joint venture with Rosneft on high risk deep-sea exploration in the Arctic and Russian Black Sea. ⁵⁰⁸

Company Report Highlights

ExxonMobil's Summary Annual Report for 2014⁵⁰⁹ shows that the company's earnings of Us\$ 32.5 billion were derived from an industry-leading 16.2 percent return on average capital employed. The company's proved oil and natural gas reserves additions of 1.5 billion oil-equivalent barrels equaled a replacement of more than 100 percent of production of the previous year, which Exxon achieved for the 21st consecutive year.

In 2014, Exxon also successfully drilled the first ExxonMobil-Rosneft Joint Venture Kara Sea exploration well in the Russian Arctic.

^{501 &}quot;ExxonMobil" Fortune 500, retrieved 20 May 2015.

^{502 &}quot;Our History" ExxonMobil, retrieved 20 May 2014.

^{503 &}quot;ExxonMobil Corporate Profile" Reuters, retrieved 20 May 2014.

^{504 &}quot;ExxonMobil 2014 Reserves Replacement Totals 104 Percent" ExxonMobil, 23 February 2015.

^{505 &}quot;2014 Summary Annual Report" ExxonMobil.

^{506 &}quot;The age of oil" The Economist, 24 February 2005.

^{508 &}quot;Exxon Mobil clinches Arctic oil deal with Rosneft" BBC News, 30 August 2011.

^{509 &}quot;Summary Annual Report 2014" ExxonMobil, Retrieved 20 May 2014.

Official Accreditations and Global Perceptions

EITI Supporter Status

As of December 2011, ExxonMobil was a supporter company of the EITI, having joined on its creation in 2002. CEO Rex Tillerson co-authored the foreword to the EITI Business Guide. 510

In addition to the company's membership of the EITI, ExxonMobil announced in 2010 that they would serve on the Iraq EITI Board after the country joined the initiative. The company has also been active in the multi-stakeholder committee working to implement the EITI process in Equatorial Guinea.⁵¹¹

UN Global Compact

On their official website, ExxonMobil state that while they were not a signatory of the UN Global Compact as of December 2011, its values regarding human rights, labour standards, the environment and anticorruption are embedded in their own Corporate Standards. 512

CSR Review

Exxon's 2010 'Corporate Citizen Report' marks the following highlights in corporate social responsibility:

- A 10% reduction in lost-time incident rate since 2009.
- 40 technical scholarships awarded and 1263 global internships and co-op assignments sponsored.
- Over 33,000 employees received anti-corruption training.
- The company received a 10/10 rating from GovernanceMetrics International and was ranked among the top 1% of companies rated.
- 2,600 hectares of protected wildlife habitats were added.
- The company managed a 20% reduction in upstream flaring.
- US\$ 1.6 billion had been invested to improve energy efficiency and reduce greenhouse gas emissions since 2006.⁵¹³

^{510 &}quot;REITI Business Guide: Extractive industries can be part of the solution" EITI, 12 May 2008.

^{511 &}quot;Corporate Citizen Report 2010" ExxonMobil, Retrieved 9 January 2012.

^{512 &}quot;Safety in our operations" ExxonMobil, retrieved 07 October 2011.

^{513 &}quot;Corporate Citizen Report 2010" ExxonMobil, Retrieved 9 January 2012.

External Coverage

- Prior to BP's Deepwater Horizon spill in the Gulf of Mexico, America's worst offshore oil leak was the Exxon Valdez spill in Alaska in March 1989, when a tanker hit a reef and spilled 11 million gallons of crude oil into the waters. The spill caused long-term environmental damage, polluting coastlines, contaminating fishing ground and killing large numbers of animals. A court ordered Exxon to pay US\$ 5 billion in damages, a figure which was later reduced to only US\$ 500 million. 514
- ExxonMobil has been criticized for its funding of climate change denial science. An analysis carried out by Carbon Brief in 2011 found that 9 out of 10 of the most prolific authors who cast doubt on climate change had some sort of connection with the company.⁵¹⁵
- In 2001 an international human rights group filed a lawsuit against Exxon, accusing it of complicity in the murder, torture and sexual abuse of the local population in the Aceh province in Indonesia, by virtue of the local army units it hired to protect its gas fields. Exxon denied the allegations.⁵¹⁶
- In 2003 James Giffen, merchant banker and consultant to the Kazakh government, was arrested after being accused of channeling bribes in Kazakhstan during the 1990s in order to buy influence in the country for ExxonMobil, as well as other majors such as BP and Phillips Petrolem. The payments were said to violate the Foreign Corrupt Practices Act. However none of the oil companies were accused of any wrongdoing.⁵¹⁷
- In 2006 gay rights groups began boycotting ExxonMobil for refusing to specifically prohibit discrimination against gays in its employment policy.⁵¹⁸

^{514 &}quot;Alaska town slowly heals after 1989 Exxon Valdez spill" BBC, 16 July 2010.

^{515 &}quot;9 out of 10 top climate change deniers linked with Exxon Mobil" AME Science, 10 May 2011.

^{516 &}quot;Exxon 'helped torture in Indonesia" BBC, 22 June 2001.

^{517 &}quot;Oil, Cash and Corruption" New York Times, 5 November 2006.

^{518 &}quot;ExxonMobil's gay problem" CNN, 11 May 2006.

6.11 ExxonMobil in Tanzania

ExxonMobil Exploration and Production Tanzania Limited (EMEPTL) is a fully owned subsidiary of ExxonMobil with a 35 per cent working interest in Block 2 deep Sea water prospect offshore Tanzania which is operated by Statoil Tanzania with a 65 per cent working interest.⁵¹⁹

Discoveries in Tanzania

EMEPTL and its partner have completed four natural gas discoveries to date with a total resource in-place of 17-20 Tcf. The discoveries are in a water depth of 2,500 metres. Statoil and ExxonMobil Corp. have announced a fifth gas discovery in Block 2 offshore Tanzania. The discovery is of between 2 and 3 trillion cubic feet (Tcf) of gas in place in the Mronge-1 well. Statoil and ExxonMobil have made another big gas discovery off Tanzania and plan a drilling campaign over the next two years, lifting Tanzania's hope of becoming a major gas exporter.

The firms found 2-3 trillion cubic feet (Tcf) of gas in place, or 360-540 million barrels of oil equivalent (boe). 523 Offshore energy reported that Statoil and ExxonMobil made another high impact gas discovery offshore Tanzania. The discovery in the Piri prospect was Statoil and co-venturer ExxonMobil's sixth discovery and the fifth high-impact discovery in Block 2 offshore Tanzania. 524 The discovery of additional 2 to 3 trillion cubic feet (Tcf) of natural gas in place in Piri-1 brought the total of in-place volumes up to approximately 20 Tcf in Block 2.525 Piri-1, drilled by the Discoverer Americas drill ship, is 2km southwest of the Lavani-1 well in 2,360m of water. Discoverer Americas is now drilling the Binzari prospect on Block 2.526

^{519 &}quot;Tanzania" ExxonMobil, retrieved 24 September 2014.

^{520 &}quot;Tanzania" ExxonMobil, retrieved 24 September 2014.

^{521 &}quot;Statoil, ExxonMobil Find 2-3 Tcf of Gas Offshore Tanzania" Rigzone, 6 December 2013

^{522 &}quot;UPDATE 2-Statoil, ExxonMobil plan aggressive Tanzania exploration" Reuters, 6 December 2013

^{523 &}quot;UPDATE 2-Statoil, ExxonMobil plan aggressive Tanzania exploration" Reuters, 6 December 2013

^{524 &}quot;Statoil, ExxonMobil strike gas offshore Tanzania" Offshore Energy Today. Com 18 June 2014

^{525 &}quot;Statoil, ExxonMobil strike gas offshore Tanzania" Offshore Energy Today. Com 18 June 2014

^{526 &}quot;Statoil, ExxonMobil make another gas discovery offshore Tanzania" Oil & Gas Journal, 18 June 2014

In 2012 and 2013, ExxonMobil and Statoil made the significant Zafarani, Lavani, Tangawizi and Mronge discoveries in Block 2, which covers an area of approximately 5,500 square km and lies in water depths of between 1,500 to 3,000 metres.⁵²⁷ The discoveries have proved 17-20Tcf of in-place volumes and mark an important step towards a possible natural gas development in Tanzania.⁵²⁸

Community Affairs and Environment

ExxonMobil in collaboration with Statoil seeks to apply both Tanzania and international best practice in anticipating, avoiding and mitigating effects on the people and environment that may be associated with the development. Since 2011, four women from Tanzania have graduated from the Global Women in Management programme, which is supported by ExxonMobil. Other programmes include kickstart and solar sister (to be introduced in the country from Uganda), grass root soccer (founded in 2002), anti-malaria, seed global programme, global health corps and ExxonMobil Global Health Scholarship.

6.12 Heritage Oil

Type	Public Limited Company
Traded as	LSE:HOIL
Founded	1992
Headquarters	Jersey
Key People	Michael Hibberd (Chairman), Tony Buckingham (CEO)
Revenue	US \$431,9 million (2013)
Net Income	(US \$106.88 million), 2013
Employees	163 (2013)
Website	www.heritageoilplc.com

^{527 &}quot;Tanzania" Statoil, retrieved 23 September 2013.

^{528 &}quot;Tanzania" Statoil, retrieved 23 September 2013.

^{529 &}quot;Tanzania" ExxonMobil, retrieved 24 September 2014.

^{530 &}quot;Tanzania" ExxonMobil, retrieved 24 September 2014.

^{531 &}quot;Tanzania" ExxonMobil, retrieved 24 September 2014.

Global Snapshot

Heritage Oil is an oil and gas exploration and production company listed on the Toronto and London stock exchanges. The company owns producing assets in Russia, exploration projects in the Kurdistan region of Iraq, the Democratic Republic of Congo, Malta, Pakistan, Tanzania and Mali, as well as an investment in Libya. 532

The company was founded in 1992 and was initially formed to hold interests in offshore Angola. In 1997 it was awarded interests in onshore Congo and went on to discover the M'Boundi Field in 2001, which brought substantial gains. San According to the UK's *Independent* newspaper, Heritage has a history of moving early into unstable, oilrich regions that pose significant personal and operational risks, such as Uganda and Kurdistan. The company was thought to be the first foreign oil company to enter Libya after the 2011 uprising when it announced it had acquired small Benghazi-based services company Sahara for US\$ 19.5 million in October 2011.

Company Report Highlights

In 2013 production from Hertiage's onshore concession OML 30 in Nigeria increased and a record gross production since acquisition, of over 50,000 bopd has been achieved. In Tanzania Heritage continued it's work programme through processing of 2D seismic data on the Rukwa licence which has identified several prospects in the retained Rukwa South licence area. Moreover a geochemical survey of the Kyela licence has been completed and interpretation of the data is proceeding to schedule. Total revenues, net to Heritage, for 2013 was US\$ 431.9 million and profit after tax from continuing operations of US\$ 100.4 million, which is an increase of 104% year-on-year. 535

Official Accreditations and Global Perceptions

EITI Supporter Status

As of June 2015, Heritage was not one of the supporting companies of ${\hbox{\footnotesize EITI}}.$

^{532 &}quot;About Heritage" Heritage Oil, retrieved 22 December 2011.

^{533 &}quot;2010 Annual Report" Heritage Oil, 2011.

^{534 &}quot;Heritage plants UK flag in Libya with takeover of Sahara Oil", Independent, 5 October 2011. Libyan authorities later denied that the sale had taken place

^{535 &}quot;Annual Report" Heritage Oil, retrieved 30 April 2015

UN Global Compact

As of June 2015, Heritage was not a member of the UN Global Compact.

CSR Review

Heritage's Annual Report 2013 highlights the following as achievements in corporate social resonsibility:

- A total of US\$ 5,3 million was spent on CSR related activities in 2012;
- Community projects implemented through health, education and social programme investments across all operating regions;
- Zero Lost Time Incidents or fatalities across all operations;
- Adhered to mandatory reporting of Greenhouse Gas emissions.⁵³⁶

External Coverage

- Prior to founding Heritage, CEO Tony Buckingham was a partner at private security firm Executive Outcomes. Buckingham transformed Heritage from a company valued at US\$15 million on the Toronto Stock Exchange in 1998 to a FTSE 250 company valued at \$1.1 billion in 2011. As of early 2011 he owned 30% of the group through his investment vehicle Albion Energy.⁵³⁷
- In September 2011 the UK-based *Petroleum Economist* reported that the Libyan National Transitional Council (NTC) had been approached by individuals linked to Heritage Oil seeking a contract to provide security at Libyan oil fields. However the request was rejected by the chairman of Libya's National Oil Corporation (NOC), who called the offer "not acceptable".

It was also reported that the firm had been lobbying UK Foreign secretary William Hague for support.⁵³⁸

 In February 2014 the shares of Heritage Oil skyrocketed after a report on massive production increases at the firm's OML 30

^{536 &}quot;Annual CSR Report 2013" Heritage Oil, 2013.

^{537 &}quot;Profile: Tony Buckingham, chief executive of Heritage Oil" Telegraph, 26 January 2011.

^{538 &}quot;UK Firm Lobbies Hague over Libya Security Deal" Petroleum Economist, 26 January 2011.

well in Nigeria, as well as the successful conclusion of tax rebate negotiations in the country. 539

 In April 2014 Heritage Oil agreed a \$1.6 billion takeover offer from a fund owned by the former chief executive of Qatar's sovereign wealth fund. 540

6.13 Heritage Oil in Tanzania

Heritage has two licences in Tanzania: Rukwa South and Kyela. Both licences are considered to be geologically analogous to the Lake Albert Basin in Uganda. 541

Rukwa

In November 2011, Heritage was awarded a PSA for the entire Rukwa Rift Basin, comprising Rukwa North and Rukwa South. The company operates with a 100 percent interest. First 2D seismic data of the Basin were collected in the mid-1980s. Heritage completed its first 2D seismic of an area covering 600 km in March 2013. The data collected indicate that the principal prospectivity lies in the area of the Rukwa South Licence. In consequence, Heritage abandoned the Rukwa North licence. Focused interpretation over the Rukwa South licence area has resulted in the identification of several prospects, which are believed to be geologically analogous to the Kingfisher oil discovery in Uganda. The company is currently mapping and evaluating these prospects.⁵⁴²

Kyela

The Kyela PSA was awarded to Heritage in January 2012. The PSA covers the entire northern onshore area of the Lake Nyasa Basin in Tanzania. The licence area has never previously been explored for hydrocarbon reserves. Since 2012, Heritage has conducted different surveys including a 100 km reconnaissance seismic survey and a geochemical survey. In 2013, a 100 km reconnaissance seismic survey was completed. It confirmed the presence of structures as

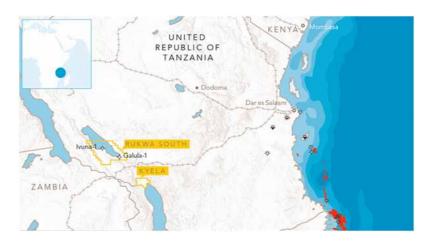
^{539 &}quot;Heritage Oil boosts hopes of a dividend as production rises" "CITYA.M.", retrieved 4 June 2015.

^{540 &}quot;Qatari fund buys Heritage Oil for \$1.6 billion" "Reuters" retrieved 4 June 2015.

^{541 &}quot;Our Operations" Heritage Oil, retrieved 05 April 2015.

^{542 &}quot;Our Operations" Heritage Oil, retrieved 05 April 2015.

indicated by gravity data that was collected earlier. A multi-well drilling programme across the two licences is planned for 2015. ⁵⁴³



6.14 Maurel and Prom Ltd

Global Snapshot

Maurel and Prom is a French public company listed on the Paris stock market, which is engaged in oil and gas exploration and production. ⁵⁴⁴ The company was founded in 1813 and was one of France's largest foreign trading companies. It undertook trading activities between Bordeaux and the French colonies. In 1986, the company shifted its focus to agribusiness before finally focusing on hydrocarbon exploration and production in 1998. ⁵⁴⁵ Today, Maurel and Prom pursues its activities in Gabon, Senegal, the Congo, Mozambique, Tanzania, Syria, Colombia, Peru, Venezuela, France and Italy. The company operates through its direct and indirect subsidiaries, Maurel & Prom Venezuela SAS, Prestoil Kouilou, Maurel & Prom Peru Holdings, Maurel & Prom Tanzanie Ltd and Panther Eureka SRL, among others. ⁵⁴⁶ According to Maurel and Prom's 2013 annual report, the total sales of the company in the year amounted to 580.3 Million €. ⁵⁴⁷

^{543 &}quot;Our Operations" Heritage Oil, retrieved 05 April 2015.

^{544 &}quot;Key Dates" "Maurel et Prom" retrieved 27th October 2014.

^{545 &}quot;Key Dates" "Maurel et Prom" retrieved 27 October 2014.

^{546 &}quot;Etablissements Maurel et Prom SA" Reuters, retrieved 27 October 2014.

^{547 &}quot;Key Figures" "Maurel et Prom" retrieved 27 October 2014.

6.15 Maurel and Prom in Tanzania

The Bigwa-Rufiji-Mafia exploration licence

Maurel and Prom entered Tanzania in July 2004 with the Bigwa-Rufiji-Mafia exploration licence, which it operates with a 60 percent interest, while PetroQuest and Hollick each hold 20 percent.

The Bigwa region is a coastal region in the south of Dar es Salaam in a geological area known as the Bigwa Embayment. To-date, no financially viable gas reserves have been found in the area but more appraisal wells are being planned.

The Mnazi Bay developing licence

In December 2009, Maurel and Prom took over the operatorship of the Mnazi Bay Production Sharing Agreement from the Artumas Group & Partners (Gas) Limited.

Maurel and Prom has a 48.06 percent production interest in the developing licence, while owns a 31.94 production stake. Staterun (TPDC) retains the remaining 20 percent production interest in the licence. The concession area lies between Aminex's Ruvuma concessions and Group's offshore concession. To-date, five wells were drilled and 667 Bcf of gas has been discovered. The first gas is expected to be delivered in early 2015. New exploration wells are planned.

The Mnazi Bay gas supply agreement

In September 2014, Maurel and Prom together with Wentworth Resources signed an agreement with the Tanzanian government to supplygasviathe Mtwara-Dares Salaampipeline. Underthe agreement, the two companies will deliver to the pipeline up to a maximum of 80 million cubic feet per day (mmcf/d) of natural gas during the first eight months, with an option to increase over time to a maximum 139 mmcf/d of gas for up to a 17-year supply period. The gas price is set at USD 3 per million metric British thermal unit (mmbtu). According to analysts, the agreement contractually binds Tanzania to purchase a fixed minimum quantity of natural gas even if it does not need it during the duration of the contract. The agreement aims to double the country's power generation capacity to 3,000 megawatts by 2016. ⁵⁴⁸

^{548 &}quot;Tanzania signs gas deal with France's Maurel & Prom and partners" Reuters, retrieved 27 October 2014.

Corporate Social Responsibility

According to the Maurel and Prom's official web-site, the company purchased equipment for a clinic in the Mkuranga area. Moreover, they drilled water wells and maintained roads in local communities.⁵⁴⁹

6.16 Ophir Energy

Туре	Public Limited Company
Traded as	LSE: OPHR
Founded	2004
Headquarters	London (UK)
Key People	Mr. Nick Cooper (CEO)
Products	Oil and gas exploration.
Revenue	\$1 million
Net Income	\$40.7 million
Website	www.ophir-energy.com

Overview

Ophir Energy is an upstream oil and gas exploration company based in London and founded in 2004. 550 Ophir is primarily focused on Africa, with assets in countries including Kenya, Tanzania, Gabon and Equatorial Guinea. 551

Although it focuses on deepwater exploration, Ophir also has onshore assets.⁵⁵² Ophir is currently the largest independent deepwater oil and gas exploration company in East Africa in terms of net acreage.⁵⁵³

Ophir Energy is not an EITI supporting company.

6.17 Ophir Energy in Tanzania

Ophir Energy is an oil and gas firm with operations in Congo, Equatorial Guinea, Senegal, Madagascar, Somaliland, Tanzania and Gabon..⁵⁵⁴ It is listed on the London Stock Exchange (LSE), even

^{549 &}quot;Commitments" "Maurel et Prom" retrieved 27 October 2014.

^{550 &}quot;Ophir Energy" Ophir, retrieved 24 October 2013

^{551 &}quot;Ophir Energy" Ophir, retrieved 24 October 2013

^{552 &}quot;Ophir Energy" Ophir, retrieved 24 October 2013

^{553 &}quot;Ophir 2012 Annual Report" Ophir, retrieved 24 October 2013

^{554 &}quot;Ophir Energy-Our Assets" Ophir Energy, retrieved 9 October 2014.

though specialist banking and asset management group Investec on August 20, 2014, downgraded its recommendation on Ophir to 'hold' from 'buy', saying the exploration attractiveness that had made its stock unique when compared to its peers, was no longer tenable. ⁵⁵⁵ On August 28, 2014, the firm announced that it would reorganize its organizational structure at the top aimed at reducing costs in line with the needs of the business, an exercise that would see it downsize top management positions ⁵⁵⁶, by having a leaner Board of two (from 3) executives and non executives also being reduced from six to five. ⁵⁵⁷

Ophir Tanzania Operations

Ophir made its first presence in Tanzania in October 2005, when it signed a PSA for Block 1 and holds an 80 per cent stake in Block 7 located to the north of areas with major gas discoveries in Blocks 1, 2, 3 and 4 in the deep offshore basin of Tanzania. The firm applied to increase its stake in Block 3 (from 20 per cent) to 80 per cent with the remaining 20 per cent being retained by Singapore based Pavillion Energy. Page 160 per cent being retained by Singapore based Pavillion Energy.

It has further interests in Block 4 (home to Chewa-1 gas discovery and Pweza-1 gas discovery) where it holds 20 per cent in partnership with Pavilion Energy with a 20 per cent stake and BG Group, who is also the operator, holding 60 per cent.⁵⁶¹ Its other interest in Tanzania is East Pande, with 70 per cent, lying between Songo Songo Gas Field, Ruvuma Basin and Chewa-1 gas discovery and Pweza-1 gas discovery wells (Block-4) where there had been significant natural gas discoveries offshore southern Tanzania.⁵⁶² At the end of 2013 Ophir disposed off 20 per cent of its stake in Blocks 1, 3 and 4

^{555 &}quot;Ophir Energy downgraded by Investec" StockMarketWire, 23 October 2014

^{556 &}quot;Restructuring of Board, Executive Team and Management Structure" Ophir Energy, retrieved 23 September 2014.

^{557 &}quot;Ophir Energy Appoints COO As CFO Steps Down Amid Restructuring" Alliance News, 28 August 2014

^{558 &}quot;Papa-1 Play Opening First Cretaceous Gas Discovery" Ophir Energ, retrieved 12 October 2014.

^{559 &}quot;BG Group Withdraws From Block-3 Offshore Tanzania" 1Derrick, 3 October 2014

^{560 &}quot;Temasek's Pavilion pays US\$1.3 bil for Tanzania gas share" The Edge, 14 November 2013

^{561 &}quot;BG Group and Ophir Energy Find Over 17 Trillion Cubic Feet of Gas Offshore Tanzania" gCaptain, 2 October 2014

^{562 &}quot;Oil and Gas Exploration Companies Operating In Tanzania" Tanzania Petroleum Development Corporation, retrieved 10 October 2014.

offshore Tanzania to one of the latest entrants in the country's gas and oil exploration operations, Singapore-based Pavilion Energy.⁵⁶³ It was awarded a 100 per cent interest in Block-1 in 2005 and in 2006, the firm took a 100 per cent control of Blocks 3 and 4, later selling a 60 per cent stake to BG Group who became the new operator.⁵⁶⁴ Divesture of the 20 per cent interest saw the Group make a net profit after tax of US\$339.1million for six months ended 30 June 2014, in contrast to a loss of US\$19.4 million made in a similar period in 2013.⁵⁶⁵

Ophir Energy and Dry Well

After having had a success rate that was almost flawless in its previous drilling operations offshore of Tanzania and in the East African region, Ophir suffered a glitch when it encountered a dry well at Mlinzi Mbali-1 some 210km from the capital city Dar es Salaam in 2013. Despite the hiccup, the southern blocks offshore Tanzania which Ophir has operated with BG Group, have produced close to 2.5 billion barrels of oil equivalent. In October 2014 the company announced its latest gas discovery in Tanzania amounting to 1.03Tcf in the Kamba-1 well, in Block-4.

Accusation in Tanzania

In late 2012, an opposition legislator, Mr. Zitto Kabwe, accused Ophir Energy of having bribed its way into the country to acquire exploration licences and that local beneficiaries of this scam had stashed this money in offshore accounts. Kabwe alleged that Ophir used a 'fixer', Mr. Moto Mabanga, a Congolese business man, to get the exploration blocks while the firm in collaboration with Mabanga threatened court action against the Member of Parliament. Mabanga took the legislator to task by demanding that he refutes the

^{563 &}quot;Temasek's Pavilion pays US\$1.3 bil for Tanzania gas share" The Edge, 14 November 2013

^{564 &}quot;BG Group Exits Block 3 Offshore Tanzania" Natural Gas Asia, 2 October 2014

^{565 &}quot;Ophir returns to profit on Tanzanian assets sale" Offshore Energy Today. Com, 14 August 2014

^{566 &}quot;Ophir Energy strikes dry well in Tanzania" Oil & Gas, 2 January 2014

^{567 &}quot;Ophir Energy strikes dry well in Tanzania" Oil & Gas, 2 January 2014

^{569 &}quot;Ophir Energy Agent Threatens Zitto Kabwe" IPP Media, retrieved 23 September 2014

^{570 &}quot;The billionaire who 'fixed' Zitto Kabwe" The Citizen, 6 December 2013

allegations he had labeled against him. The subsequent defamation case was won by the Congolese business man.⁵⁷¹

6.18 Petrobras

Туре	Partially state-owned
Founded	1953
Headquarters	Rio de Janeiro, Brazil
Key People	José Gabrielli (CEO)
Employees	80,492 (March 2011)
Website	www.petrobras.com

Company Profile

Petroleo Brasileiro (Petrobras) is a Brazilian integrated oil and gas company, operating in five segments: exploration and production; refining, commercialization and transport of oil and gas; petrochemicals; distribution of derivatives and electrical energy; biofuels and other renewable energy sources. As of December 2010 it had 132 production platforms, 16 refineries, 291 vessels,29,398 kilometers of pipelines, six biofuel plants, 16 thermoelectric plants, one pilot wind farm, 8,477 service stations and two fertilizer plants, as well as presence in 30 countries.

Outside of Brazil, the company focuses its upstream activities in the Gulf of Mexico and West Africa. Over the course of 2009 the company conducted exploration and production activities in 21 countries outside of Brazil (Angola, Argentina, Bolivia, Colombia, Ecuador, the United States, India, Iran, Libya, Mexico, Mozambique, Namibia, Nigeria, Pakistan, Peru, Portugal, Senegal, Tanzania, Turkey, Uruguay and Venezuela). As of the end of 2009, international activities accounted for 7.4% of total assets.⁵⁷²

6.19 Petrobras in Tanzania

Petrobras Tanzania was the first international oil and gas company to take up an offshore gas block in Tanzania in 2001. The block Block 5 was awarded to Petrobras at the end of the first licensing round. 573

^{571 &}quot;Case against Ophir and BG to be heard by Dar es Salaam High Court" Menas Consulting, 9 September 2014

⁵⁷²

^{573 &}quot;New Offshore Licensing Round for Tanzania" geoexpro, retrieved 05 April 2015.

However, it was not until 2004 that Petrobras actually signed an agreement with the Government of Tanzania and with the Tanzania Petroleum Development Corporation (TPDC) that formally stated its participation in the exploration of the block.⁵⁷⁴

The same year the company started its first exploration and research activities off the Tanzania coast.⁵⁷⁵

During the third licensing in 2005, a second offshore block ([Block 6]) was awarded to Petrobras and in 2008 Block 8 was directly awarded to the company.⁵⁷⁶ In April 2011, Petrobras drilled the Zeta-1 well in Block 5, which was abandoned in 2012.⁵⁷⁷

Later in 2011, Petrobras partnered with Shell. Shell acquired a 50 percent interest in Block 5 and Block 6. Under the agreement, Petrobras remained the operator.⁵⁷⁸

In the same year, the drilling ship Ocean Rig Poseidon working for Petrobras was attacked by pirates. Seven pirates in a small boat attacked the drilling ship 82 miles from the port city of Dar es Salaam. The attack was stopped by security personnel and the Tanzanian navy. The pirates were arrested. 579

In 2013, Petrobras farmed out its 12 percent stake of Block 6 to Statoil. In June 2013, Petrobras announced that its subsidiary Petrobras International Braspetro B.V. ("PIBBV"), together with the investment vehicle owned and managed by BTG Pactual ("BTG Pactual Vehicle"), entered into a joint venture (at the ratio of half each) agreement for oil and gas exploration and production in Africa, which includes Tanzania. S81

^{574 &}quot;Petrobras confirms oil exploration deal" energy-pedia, retrieved 05 April 2015.

^{575 &}quot;Global Presence" Petrobras, retrieved 05 April 2015.

^{576 &}quot;Tanzania Deep Sea Licensing History" "TPDC" retrieved 01 December 2014.

^{577 &}quot;Petrobras Tanzania begins drilling for oil at Zeta-1 block" Daily Herald, retrieved 05 April 2015.

^{578 &}quot;Petrobras-Shell enter farm-out agreement for Tanzania blocks" rigzone, retrieved 05 April 2015.

^{579 &}quot;Petrobras drillship attacked" gcaptain, retrieved 05 April 2015.

^{580 &}quot;Petrobras farms out Tanzania offshore block to Statoil" Oil Review Africa, retrieved 05 April 2015.

^{581 &}quot;Tanzania" Petrobras, retrieved 06 April 2015.

6.20 Shell

Туре	Public Limited Company
Traded as	LSE:RDSA NYSE:RDSA
Founded	1907
Headquarters	The Hague (Netherlands), London (UK)
Key People	Ben van Beurden (CEO)
Revenue	US \$421.105 billion (2014)
Net Income	US \$14.703 billion (2014)
% change over previous year	-10.1%
Total Assets	US \$353.116 billion (end 2014)
Total Equity	US \$172.786 billion (end 2014)
Employees	94,000 (end 2014)
Website	www.shell.com

Global Snapshot

Anglo-Dutch company Shell was ranked in second place on the 2014 Global Fortune 500 list of the world's most valuable companies. It engages worldwide in the upstream, downstream and corporate segments, and also has interests in chemicals and other energy-related businesses. In 2014 Shell was also ranked as the 8th largest oil company worldwide by production, with average daily production of 3.7 billion barrels of oil equivalent (boe) per day. 1844

The company name "Shell" and the corporate logo were decided upon due to founder Marcus Samuel's background in importing and exporting oriental shells. He and his brother renamed their oil transport company the Shell Transport and Trading Company in 1897. Royal Dutch was a company formed to develop oil fields in the Dutch East Indies and the two companies joined forces in order to protect themselves against competitor Standard Oil. The full merger of the two companies came in 1907. 585

After the company had started to sell its US shale gas assets throughout 2013, a new CEO, Ben van Beurden, took charge in January 2014

^{583 &}quot;Royal Dutch Shell Profile" Reuters, retrieved 20 May 2015.

^{584 &}quot;The World's 25 Biggest Oil and Gas Companies 2015" Forbes, 19 March 2015.

^{585 &}quot;The beginnings" Shell, retrieved 22 May 2015.

prior to the announcement of the company's significantly lower performance in the same year. The appointment was immediately followed by the sale of the majority of the company's Australian assets in February 2014.586

In April 2015, Shell announced it had agreed to buy smaller rival BG Group, UK's third-biggest energy company, for 47 billion pounds (\$70 billion) in the first major energy industry merger in more than a decade. As of 2014, Shell was already considered the world's leading liquefied natural gas (LNG) company. Through BG's assets in Brazil, East Africa, Australia, Kazakhstan and Egypt, however, Shell could further improve it's capacity in LNG logistics and increase its LNG output to 18 percent of the world's total. ⁵⁸⁷

Company Report Highlights

According to Shell's 2014 CEO Review⁵⁸⁸, the company had achieved 'better results despite the fall in oil prices during the second half of 2014'.

The company also reported 10 notable discoveries in the USA, Gabon and Malaysia, and new production from deep-water projects, including Gumusut-Kakap in Malaysia, which is expected to produce up to 135 thousand barrels per day of oil equivalent (boe/d) and the 40 thousand boe/d Bonga North West development off the coast of Nigeria. Due to the expiry of a licence in Abu Dhabi and the impact of asset sales, however, the company's overall production dropped by 4% compared to the previous year.

In 2014, Shell also reduced it's capital investment from \$46 billion in 2013 to \$37 billion.

Official Accreditation and Global Perceptions

EITI Supporter Status

As of April 2015, Shell is a supporting company of the EITI.

^{586 &}quot;Vitol to pay Shell A\$2.9 billion for Australian assets" Bloomberg, 21 February 2014.

^{587 &}quot;Shell challenges Exxon dominance with \$70 billion bid for BG" Reuters, 8 April 2015.

^{588 &}quot;Chief Executive review 2014" Shell, retrieved 22 May 2015.

UN Global Compact

As of April 2015, Shell is a member of the UN Global Compact, having joined in July 2000.

CSR Review

- According to company documents, Royal Dutch Shell's CSR activities include the Shell Foundation, which was established by the Shell Group in 2000 as an independent, UK registered charity operating with a global mandate. They received an initial \$250 million endowment from the Shell Group and an additional 10 year commitment of \$160 million.⁵⁸⁹ and was set up after Shell was associated in public opinion with two damaging rows in the mid-1990s the disposal of the Brent Spar oil rig and the execution of the poet and anti-oil activist Ken Saro-Wiwa in Nigeria.⁵⁹⁰
- Another initiative from Shell is LiveWIRE, a social investment programme that aims to help young people around the world explore the option of starting their own business as a real and viable career option, launched in 1982 and now working in 21 countries worldwide.⁵⁹¹

External Coverage

- In 2004 Shell was fined £17 million by the UK's Financial Services Authority (FSA) and chairman Philip Watts was ousted after the company was found to have overstated its oil reserves. In 2009 an Amsterdam court of appeal cleared the way for approximately US \$352.6 million in compensation to be paid out to non-US shareholders over the affair.⁵⁹²
- In 2008 the British Advertising Standards Authority (ASA) decided that Shell should not have used the word "sustainable" for its controversial tar sands project and a refinery scheme, ruling that one of the company's adverts breached rules on substantiation, truthfulness and environmental claims.⁵⁹³

^{589 &}quot;Home" Shell Foundation Official site, retrieved 20 May 2015

 $^{590\,}$ "Campaigners attack Shell's charity arm ", The Guardian, 28 September $2006\,$

^{591 &}quot;Shell LiveWIRE International" Shell LiveWIRE Official Site, retrieved 13 July 2010

^{592 &}quot;Royal Dutch Shell to compensate shareholders for reserves scandal" Guardian, 31 May 2009.

^{593 &}quot;Shell rebuked for 'greenwash' over ad for polluting oil project" Independent, 13 August 2008.

- Industry watchdog Platform accused Shell in 2011 of funding armed gangs and fuelling human rights abuses in Nigeria, allegations which the company denied. The organisation stated that while primary responsibility for such violations falls on the Nigerian government and others, Shell has played an "active role in fuelling conflict and violence", regularly arming militias and transferring over \$159,000 to a group credibly linked to militia violence. ⁵⁹⁴
- A 2011 report by the United Nations Environmental Programme (UNEP) criticized Shell for contributing to 50 years of pollution in the oil-rich Ogoni region in the Niger Delta, stating that it calls for the world's largest ever oil clean-up and that it would cost an initial \$1 billion and take up to 20 years.⁵⁹⁵
- In 2012 Shell's subsidiary in Nigeria was ordered by a Nigerian court to pay over \$25 million to five communities in Imo state for a 1997 oil spill.⁵⁹⁶
- On 31 December 2012, Shell's drilling rig the Kulluk ran aground in the Gulf of Alaska, sparking criticism on Shell's controversial plans to drill in the Arctic. Such criticism rose again in 2015, after the Obama administration announced that it would let the company resume its operations off the Alaskan coast, if it met certain conditions.⁵⁹⁷

6.21 SONGAS Limited in Tanzania

Overview

SONGAS Limited commenced its operations in July 2004. The company generates electricity using gas from the SongoSongo Island gas fields, off the coast of southern Tanzania. SONGAS conducts gas processing, transportation and power generation. The gas is processed on SongoSongo Island and is transported from there through a 225km pipeline to Dar es Salaam where it is used in the SONGAS Ubungo Power Plant. The 190 MW natural gas-fired plant at

^{594 &}quot;Shell fuelled human rights abuses in Nigeria - NGO", Reuters, 3 October 2011.

^{595 &}quot;U.N. slams Shell as Nigeria needs biggest ever oil clean-up" Reuters, 4 August 2011.

⁵⁹⁶ "Shell to pay \$25m to Nigerian communities over oil spill" Platform London, 21 March 2012.

^{597 &}quot;Shell's Record Adds to the Anger of Those Opposing Arctic Drilling.html" New York Times, 12 May 2015.

Ubungo consists of six open-cycle gas turbines. ⁵⁹⁸ The plant supplies electricity to the national electricity grid.

The electricity gets distributed to the end users by the Tanzania Electric Supply Company (TANESCO). In addition, SONGAS supplies gas from the SongoSongo Island directly to 30 industrial consumers for electricity generation. One of them is the Twiga Cement Plant at Wazo Hill in Dar es Salaam. ⁵⁹⁹ According to the company's website, SONGAS is currently generating approximately 30 percent of Tanzania's electricity needs and sells it to TANESCO at USD 5.5 cents per kWh. ⁶⁰⁰

History

Tanzania developed two main independent power projects: SONGAS and Independent Power Tanzania Limited (IPTL). Initially conceived within the broader context of power sector reforms in the late 1980s and early 1990s, independent power projects were intended to relieve state utilities of the burden of financing new plants, bring quick, quality power and reduce costs for end-users. ⁶⁰¹ In the early 1990s, SONGAS preceded IPTL in the planning process but due to delays in the SONGAS project IPTL emerged. In consequence, the World Bank, the largest lender to SONGAS, was instrumental in postponing the SONGAS project as IPTL appeared to render SONGAS redundant. At that time, Tanzania could not absorb the capacity of both plants.

The SONGAS project was revived in 2001 after a protracted arbitration process, a reduction in the IPTL capacity charges and ascertainment of the demand for both plants. In 2004, SONGAS finally joined the industry's operation. The SONGAS plant size has evolved extensively from the project's inception. Initially, an existing 115 MW power station (Ubungo) was converted from jet fuel to natural gas using the World Bank credit for SongoSongo Gas Development and Power Generation Project. The provision of an additional 75 MW was financed entirely by the private sector. For a sector of the songoSongo Gas Development and Power Generation Project.

600 "About us" "SONGAS", retrieved on 5th November 2014.

^{599 &}quot;Generating power and controversy: Understanding Tanzania's independent power projects" "Gratwick, Ghanadan and Eberhard" November 2006.

^{601 &}quot;Generating power and controversy: Understanding Tanzania's independent power projects" "Gratwick, Ghanadan and Eberhard", November 2006

November 2006.

November 2006.

November 2006.

November 2006.

^{603 &}quot;Generating power and controversy: Understanding Tanzania's independent power projects" "Gratwick, Ghanadan and Eberhard" November 2006.

Corporate Social Responsibility

According to the company's website, SONGAS has completed different corporate social responsibility projects on SongoSongo Island and along the 225km pipeline route. On SongoSongo these projects include the provision of fresh water supplies, access to electricity, erection of a new dispensary and provision of education services. Along the route of the pipeline, SONGAS has supported the Mohoro Secondary School by building dormitories and a water supply system. The company has also supplied books and equipment to different primary schools. Moreover, SONGAS is working with the NGOs such as Habitat for Humanity Tanzania and the Tanzania Forest Conservation Group. 604

6.22 Statoil

Type	Partially state-owned
Traded as	OSE:STL NYSE:STO
Founded	1972
Headquarters	Stavanger, Norway
Key people	Eldar Sætre (CEO), Svein Rennemo (Chairman)
Revenue	NOK 622.7 billion (2014)
Net Income	NOK 22.0 billion (2014)
% change on previous year	-178%
Total assets	NOK 986.4 billion (2014)
Total equity	NOK 381.2 billion (2014)
Employees	22,500 (2014)
Website	www.statoil.com

Global Snapshot

Statoil, formerly known as "StatoilHydro", became the largest offshore operator in the world following its merger with Norsk Hydro in 2007.⁶⁰⁵ The Norwegian government is the largest shareholder in Statoil with 67%.⁶⁰⁶ However the head of Statoil for Canada Stale

^{604 &}quot;Community Overview" "SONGAS" retrieved 05 November 2014.

^{605 &}quot;Statoil to buy the natural gas and oil operations of Norsk Hydro for \$28 billion" New York Times, 18 December 2006

^{606 &}quot;The World's 25 Biggest Oil Companies" Forbes, 7 July 2012.

Tungesvik has told press that Statoil behaves like a private company and the state has no role in its management.⁶⁰⁷ Statoil was also named the most transparent of the world's 105 publicly traded companies by pressure group Transparency International in 2012.⁶⁰⁸

In Europe Statoil is the second-largest supplier of natural gas⁶⁰⁹ and internationally, Statoil has operations in 37 countries and is listed on the New York and Oslo stock exchanges.⁶¹⁰

In 2014 Statoil had proven reserves of 5,359 billion barrels of oil equivalent (boe).⁶¹¹ As of 2014 the company was producing an estimated 1.927 million boe of gas and oil daily⁶¹² but was aiming to increase this figure to 2.5 million boe per day by 2020 by ramping up its unconventional exploration and North Sea operations.⁶¹³

Company Report Highlights

The company's Annual Report for 2014⁶¹⁴ states that Statoil was engaged in production in 10 countries: Canada, the US, Brazil, Angola, Nigeria, Algeria, Libya, the UK, Azerbaijan and Russia.

Financially, Statoil's net operating income was NOK 109.5 billion in 2014, down from NOK 155.5 billion in 2013, impacted by lower prices, impairment losses and exploration expenses. Statoil increased the annual equity production to 1.9277 million barrels of oil equivalent per day in 2014. The increase was driven by improved production efficiency and start-up of new fields, which represents a growth of 4% from a rebased 2013 level.

As a result of the European gas price development and outlook for 2014, Statoil decided to defer gas volumes to enhance value.

Helge Lund resigned as CEO in October 2014 and Eldar Sætre was appointed CEO and President.

^{607 &}quot;Norway's state-owned energy giant Statoil wants to be judged on its own actions" Financial Post, 15 October 2012.

 $^{608\,}$ "Statoil tops, Gazproms flops in transparency ranking" Barents Observer, $10\,\mathrm{July}~2012.$

^{609 &}quot;Norway's state-owned energy giant Statoil wants to be judged on its own actions" Financial Post, 15 October 2012.

^{610 &}quot;http://www.statoil.com/en/About/Worldwide/Pages/default.aspx Statoil Worldwide|" Statoil, retrieved 4 June 2015

^{611 &}quot;Annual Report 2014" Statoil', retrieved 4 June 2015'.

^{612 &}quot;Annual Report 2014" Statoil.

^{613 &}quot;Shale to spur Statoil output drive" Petroleum Economist, 28 November 2012.

^{614 &}quot;Annual Report 2014", Statoil' retrieved 4 June 2015'.

Global Snapshot

Transparency

EITI Supporter Status

As of April 2015, Statoil is a supporter country of the EITI and had been a Board member since 2009.

UN Global Compact

As of April 2015, Statoil is a member of the UN Global Compact, having joined in 2000.

CSR Review

Statoil's Sustainability Report for 2014 highlights the following CSR achievements over the year:⁶¹⁵

- Preparation of a corporate framework for country sustainability plans.
- Statoil performed significantly better than the industry average on all environmental indicators.
- A corporate framework for site-level grievance mechanisms was established, and such mechanisms were set up in Brazil, Tanzania and the USA.
- Statoil was recognised as the world's third most transparent company by Transparency International.
- Disclosure of payments to governments at project level for 2014.
- Increased transparency through reporting of indirect CO₂ emissions.

External Coverage

In 2004, Statoil suffered damage to its reputation when it was found guilty of bribery and fined 20 million Norwegian Kroner (\$2.9 million), after it was found to have paid consultant Horton Investment to influence decision makers and secure contracts in Iran. Both the Chairman and CEO at the time resigned over the affair 616

^{615 &}quot;Sustainability Report 2014" Statoil, retrieved 05 June 2015

^{616 &}quot;Statoil fined over Iranian bribes" BBC News, 29 June 2004

 In October 2007 a merger between Statoil and Norsk Hydro was implemented. The merged company StatoilHydro is traded on the Oslo and New York stock market.⁶¹⁷

6.23 Statoil in Tanzania

Statoil is an international energy company with operations in over 30 countries in the world. The company conducts at least 50 per cent of its business outside its country of origin. Staoil made its presence in Tanzania for the first time in 2007. It has a presence in almost all continents including countries such as Venezuela, the United Kingdom, United Arab Emirates, North America, Nigeria, Mozambique, Kazhakhstan, Singapore and South Korea, etc. where it engages in gas, oil and coal operations. It

Operations in Tanzania

In 2007, Statoil signed a Production Sharing Agreement (PSA) for Block 2 with Tanzania Petroleum Development Corporation (TPDC). Statoil Tanzania (AS) is the operator with 65 per cent working interest with ExxonMobil as a partner with 35 per cent interest. ⁶²⁰ In 2012 and 2013, Statoil and its partner ExxonMobil made the significant Zafarani, Lavani, Tangawizi and Mronge discoveries in Block 2, which covers an area of approximately 5,500 square kilometres and lies in water depths between 1,500 to 3,000 metres.

The discoveries have proved 17-20 Tcf of in-place volumes and mark an important step towards a possible natural gas development in Tanzania. Recent discoveries of natural gas in Tangawizi-1 during the first quarter and Mronge-1 significantly increased the total inplace volumes in Block 2. Statoil and ExxonMobil are also working to mature additional prospects in Block 2 and have completed the acquisition of additional 3D seismic data in those areas of Block 2 hitherto only covered by 2D seismic.

^{617 &}quot;Merger Implemented" Statoil, retrieved 5 June 2015

^{618 &}quot;Exploration History" Tanzania Petroleum Development Corporation, retrieved 17 September 2014.

^{619 &}quot;Tanzania" Statoil, retrieved 16 September 2014.

^{620 &}quot;Tanzania" Statoil, retrieved 16 September 2014.

^{621 &}quot;Tanzania" Statoil, retrieved 16 September 2014.

^{622 &}quot;Tanzania" Statoil, retrieved 16 September 2014.

Expansion Drive

In May 2013, Statoil acquired a 12 percent working interest in Block 6 from operator Petrobras Tanzania Ltd. Block 6 covers 5,549 square

kilometres in the Mafia basin offshore Tanzania, with a water depth of 1,800 metres. Block 6 is located approximately 170 kilometres north of the Statoil-operated Block 2, where the company made further gas discoveries in 2012 and 2013. The transaction was subject to approval by Tanzanian authorities. Statoil was now considering investing in Liquefied Natural Gas (LNG) to process natural gas for export. The company understands that with the significant gas discoveries in Tanzania, the future for the country as gas producer is promising.

Statoil at Centre of Debate

The leak of an important addendum to a Production Sharing Agreement (PSA) between Statoil and the Government of Tanzania in July 2014 ignited a debate on whether Tanzania "got a good deal" from granting these extraction rights for a block now expected to produce large amounts of commercial natural gas. The debate demonstrated a public appetite for explanations from the government on the country's management of its nascent oil and gas industry. Potentially at stake are billions of dollars of potential revenues that could boost socio-economic development in Tanzania if it becomes possible to extract these gas resources. 627

An analysis by Natural Resources Governance Institute (NRGI) indicated that it was premature to say whether the Statoil PSA and addendum represent a good deal for Tanzania. Given the limited information available, the deal does not seem out of line with international standards for a country that had no proven offshore reserves of natural gas at the time when the original contract was signed. 628 More detailed elements and explanations from the national

^{623 &}quot;Tanzania" Statoil, retrieved 16 September 2014.

^{624 &}quot;It's wrong to ignore risks of investing in gas, oil" The Guardian, 17 September 2014

^{625 &}quot;Statoil Gives Opportunities to Tanzanian Youths" Onspot Magazine, 11 September 2014

^{626 &}quot;Tanzania and Statoil: What Does The Leaked Agreement Mean For Citizens?" Natural Resource Governance Institute, August 2014.

^{627 &}quot;Tanzania and Statoil: What Does The Leaked Agreement Mean For Citizens?" Natural Resource Governance Institute, August 2014.

^{628 &}quot;Tanzania and Statoil: What Does The Leaked Agreement Mean For Citizens?" Natural Resource Governance Institute, August 2014.

oil company TPDC or the government could confirm for Tanzanian citizens that this is the case. The fact that Statoil won its rights through a competitive process should also indicate what market information was available to the government at the time, and should also help the government to explain its assessment that the deal was the best possible option at the time.⁶²⁹

However, the differences between the 2010 model PSA addendum and the leaked Statoil addendum have led to legitimate questions about the reliability of model PSAs to assess the legal environment of the emerging gas sector, and the actual content of signed PSAs. These questions underscore the need for contract transparency.⁶³⁰ Opposition legislator Zitto Kabwe raised the red flag over the Statoil/ ExxonMobil (the company's partner in Block 2) deal, claiming that it would cost the country a staggering loss of \$55 billion dollars should it go through. 631 This loss is gross value calculated without considering factors such as inflation in the 15 years of the license period.⁶³² The alleged 'bad' contract between the Government and Statoil was leaked prompting analysts and politicians alike to say that the government stood to lose one billion dollars a year. 633 TPDC as the government parastatal overseeing the sector defended the deal saying the government stands to gain under the PSA entered between the State and Statoil Company. 634

^{629 &}quot;Tanzania and Statoil: What Does The Leaked Agreement Mean For Citizens?" Natural Resource Governance Institute, August 2014.

^{630 &}quot;Tanzania and Statoil: What Does The Leaked Agreement Mean For Citizens?" Natural Resource Governance Institute, August 2014.

 $^{631\,}$ "\$55bn: What StatOil deal will cost the tax payers" The Citizen, 28 August $2014\,$

 $^{632\,}$ "\$55bn: What StatOil deal will cost the tax payers" The Citizen, 28 August $2014\,$

^{633 &}quot;TPDC defends state's stake in gas, oil deals" DailyNews, 17 July 2014

^{634 &}quot;TPDC defends state's stake in gas, oil deals" DailyNews, 17 July 2014

6.24 Swala

Туре	Public Limited Company
Traded as	ASX: SWE
Founded	2010
Headquarters	Perth (Australia)
Key People	Dr. David Mestres Ridge (CEO and Managing Director) ⁴⁷
Products	Oil and gas exploration.
Website	www.swala-energy.com

Overview

Swala is an Australian oil and gas exploration company with a focus on Africa. ⁶³⁵ First registered in the British Virgin Islands in 2010, Swala became an Australian public limited company in 2013. ⁶³⁶ Swala holds assets in Kenya, Tanzania and Zambia, with a particular interest in the East African Rift System (EARS). ⁶³⁷

Since 2013 Swala is an EITI supporting company. 638

6.25 Swala in Tanzania

Swala Oil and Gas (Tanzania) Plc ("Swala") is a Tanzanian oil and gas exploration company that is actively exploring the East African Rift System.⁶³⁹ The company is a subsidiary of Swala Energy Limited.⁶⁴⁰

The company has been listed on the Dar es Salaam Stock Exchange (DSE) since August 2014. In Tanzania, Swala has 50 percent equity in, and is operator of, the Kilosa-Kilombero and Pangani licences.⁶⁴¹

Kilosa-Kilombero licence

The Kilosa-Kilombero licence covers an area of $17,675~\rm km^2$ on the East African Rift System (EARS). The EARS extends from Uganda

^{635 &}quot;Swala: The Company" Swala, retrieved 25 October 2013

^{636 &}quot;Swala: The Company" Swala, retrieved 25 October 2013

^{637 &}quot;Swala: Assets Overview" Swala, retrieved 25 October 2013

^{638 &}quot;SWALA becomes EITI supporting company" smh.com.au, retrieved 30 April 2015

^{639 &}quot;Homepage", Swala-Energy, retrieved 13 April 2015.

^{640 &}quot;Assets-Overview", Swala-Energy, retrieved 13 April 2015.

^{641 &}quot;Homepage", Swala-Energy, retrieved 13 April 2015.

to Malawi in the west from Kenva Tanzania in the east. Oil has already been found in the Lake Albert area in Uganda that is located in the western branch of the EARS and in the Lokichar Basin in Kenya on the western branch the EARS. οf These findings suggest that the extensive presence of oil in the rift system.642 Swala's partner in the Kilosa-Kilombero licence is Otto Energy Tanzania Pty Ltd, a subsidiary wholly owned by Otto. Both partners have a 50 percent interest in the licence. Swala is the operator.643



In 2013, 2D seismic

surveys covering an area of 300-kms were carried out over the three basins in the Kilosa-Kilombero licence area with initial results indicating a possible presence of large-scale structures along the edges of the basin. The seismic surveys were carried out by Polaris. Swala awarded the contract to Polaris in May 2013. Meanwhile, the contract for carrying out further seismic surveys has been extended.⁶⁴⁴ The Company is now processing and interpreting the seismic data with a view to identifying suitable drilling targets for 2015.⁶⁴⁵

^{642 &}quot;Assets-Tanzania Kilosa Kilombero" Swala-Energy, retrieved 13 April 2015.

^{643 &}quot;Otto Energy partners complete seismic survey in Tanzania" Natural Gas Asia, retrieved 13 April 2015.

^{644 &}quot;Announcement Award Seismic Contract" Swala-Energy, retrieved 13 April 2015.

^{645 &}quot;Assets-Tanzania Kilosa Kilombero" Swala-Energy, retrieved 13 April 2015.

Pangani licence

The Pangani licence covers an area of 17,156km². It is located in the Pangani Rift on one arm of the Northern Tanzanian Diversion triple junction. The rift is part of the East African Rift System. Between mid-November and late December 2013, the company acquired 200km of 2D seismic over two basins and in 2014 a further 200km of 2D seismic. Like the Kilosa-Kilombero seismic surveys, the Pangani surveys were carried out by Polaris. The Company is now processing and interpreting the seismic data with a view to identifying suitable drilling targets for 2015.

CSR

In March 2015, Swala announced the launch of Swala Energy Trust Company Limited that owns 7.5 million shares in Swala and will invest profits from the gradual sale of these shares to support and uplift the welfare of communities in areas where it operates. According to the company, the Trust has been designed to allow for substantial increase in the livelihoods of Tanzanians under its wing who continue to face multiple challenges in health, education, sanitation and more generally in terms of poverty. The Trust is conducting a study to establish key partners in addition to carrying out a needs assessment in Swala's areas of operations. ⁶⁴⁸

6.26 Wentworth Resources

Wentworth Resources, formerly known as Artumas⁶⁴⁹, is an East African upstream and midstream oil and gas company.⁶⁵⁰ The company is publicly-traded on the London Stock Exchange and Oslo Stock Exchange. The company's two principal assets are the Mnazi Bay Concession in Tanzania and the Rovuma Onshore Block in Mozambique. Wentsworth and its partners are moreover exploring over 12,700 km² of the Rovuma Basin of Southern Tanzania and Northern Mozambique.⁶⁵¹

^{646 &}quot;Assets-Tanzania Pangani" Swala-Energy, retrieved 13 April 2015.

^{647 &}quot;Announcement Award Seismic Contract" Swala-Energy, retrieved 13 April 2015.

^{648 &}quot;Tanzania: Swala Oil, Gas firm to launch new company" AllAfrica, retrieved 13 April 2015.

^{649 &}quot;Wentworth Resources buys Cove Energy stake for \$38.8 M" "advfn.com" retrieved 22 February 2015.

^{650 &}quot;Business Description" "Wentworth Resources" retrieved 22 February 2015.

^{651 &}quot;Main Page" "Wentworth Resources" retrieved 22 February 2015.

Wentworth Resources in Tanzania

In 2004, Wentworth signed a Production-Sharing Agreement (PSA) for the Mnazi Bay Concession. The Concession is a 756 kilometre² area located in the south-eastern territory of Tanzania along its border with Mozambique. The area lies between Aminex's Ruvuma concessions and BG Group's offshore Block 1 concession. Oil was discovered in 1981 but was never extracted due to lack of demand. ⁶⁵² Wentworth Resources owns a 31.94 production stake and Maurel and Prom has a 48.06 percent production interest in the developing licence. State-run Tanzania Petroleum Development Corporation (TPDC) retains the remaining 20 percent production interest in the licence. ⁶⁵³

To-date, five wells have been drilled and 667 Bcf of gas has been discovered. Wentworth's Share of recoverable resources is 213 Bscf of contingent and 614 Bscf of recoverable resources.⁶⁵⁴

The first gas is expected to be delivered in 2015. New exploration wells are planned. $[5]^{655}$

The Mnazi Bay gas supply agreement

In September 2014, Wentworth Resources together with Maurel and Prom signed an agreement with the Tanzania Government to supply gas via the Mtwara-Dar es Salaam Gas Pipeline. Under the agreement, the two companies will deliver through the pipeline up to a maximum of 80 million cubic feet per day (mmcf/d) of natural gas during the first eight months, with an option to increase over time to a maximum of 139 mmcf/d of gas for up to a 17-year supply period. The gas price is set at US\$ 3 per million metric British thermal unit (mmbtu).

According to analysts, the agreement contractually binds Tanzania to purchase a fixed minimum quantity of natural gas even if it does not need it during the duration of the contractual period. The agreement is aimed at doubling the country's power generation

^{652 &}quot;Wentworth Resources buys Cove Energy stake for \$38.8 M" "advfn.com" retrieved 22 February 2015.

^{653 &}quot;Tanzania signs gas deal with France's Maurel & Prom and partners", "Reuters" retrieved 22 February 2015.

^{654 &}quot;Wentworth Corporate Presentation November 2014" "Wentworth Resources" retrieved 22 February 2015.

^{655 &}quot;Tanzania" "Wentworth Resources" retrieved 22 February 2015.

capacity to 3,000 megawatts by 2016.656 The delivery of gas is expected to start in 2015.657

Corporate Social Responsibility

Wentworth Africa Foundation

The Wentworth Africa Foundation (WAF) is a charitable foundation that was founded by Wentworth Resources to spearhead its corporate responsibility programme. The foundation facilitates projects that develop the skills, health and experiences of those living in the communities where Wentworth Resources is active. Wentworth Resources finances the foundation and covers all administrative expenses. 658

Current Projects in Tanzania:

- In 2013, WAF renovated and modified classrooms of the Msimbati Secondary School and electrified the school
- At Masai Girls' school, which is located 200km from Mtwara town, WAF is providing sanitation facilities
- WAF contributes to the Mtwara Cultural Festival on an annual basis
- WAF established a scholarship fund for secondary students that benefited 60 students between 2009 and 2012
- $\, \bullet \,$ WAF supplied clean water facilities to Msimbati and Mnolela secondary schools 659

^{656 &}quot;Tanzania signs gas deal with France's Maurel & Prom and partners", "Reuters" retrieved 22 February 2015.

^{657 &}quot;Wentworth Corporate Presentation November 2014" "Wentworth Resources" retrieved 22 February 2015.

^{658 &}quot;Foundation" "Wentworth Resources" retrieved 22 February 2015.

^{659 &}quot;Projects" "Wentworth Foundation" retrieved 22 February 2015.



7. Oil and Gas Fields

7.1 Overview of Gas Exploration and Production in Tanzania

By April 2014, the Tanzania Petroleum Development Corporation (TPDC) had awarded 25 exploration licences—17 on-shore and eight off-shore licences—to 17 operating oil and gas companies, according to the former Minister of Energy and Minerals Prof. Sospeter Muhongo. 660 Up to July 2014, 81 deep exploration wells had been drilled. 661 The biggest discoveries of natural gas have so far been made in deep water off-shore blocks where the BG Group in partnership with Ophir Energy, and Statoil in co-operation with ExxonMobil, have since 2010 discovered recoverable gas resources totalling 25 to 30 trillion cubic feet. 662 Natural gas production has so far been confined to two gas fields of Songo-Songo and Mnazi Bay. 663

Natural Gas Exploration

By July 2014, Tanzania's gas exploration blocks were licensed as follows (according to operators): 664 665

Exploring Companies	Block
Afren/ Petrodel	Tanga Basin
Antrim Resources	Pemba-Zanzibar
Beach Petroleum	Lake Tanganyika South
BG/Ophir	Block 1
	Block 3
	Block 4

^{660 &}quot;Investment Opportunities in the United Republic of Tanzania" "Sospeter Muhongo" retrieved 05 December 2014.

^{661 &}quot;Status of deep exploration wells up to July 2014]" "Tanzania Petroleum Development Corporation", retrieved 05 December 2014.

^{662 &}quot;Tanzania" "U.S. Energy Information Administration" retrieved 05 December 2014.

^{663 &}quot;Natural Gas" "Energy and Water Utilities Regulatory Authority" retrieved 05 December 2014.

^{664 &}quot;Exploration Activity" "Tanzania Petroleum Development Corporation" retrieved 05 December 2014.

^{665 &}quot;The Deloitte Guide to Oil and Gas in East Africa" "Deloitte", retrieved 05 December 2014.

Exploring Companies	Block
Dodsal	Ruvu Basin
Dominion Petroleum	Block 7
Heritage Oil/Petrodel	Latham
	Kimbiji
Heritage Oil	Rukwa Basin
	Kyela Basin
Hydrotanz	Mnazi Bay North
Jacka Resources	Ruhuhu Basin
Maurel et Prom	Bigwa
	Mafia
Motherland Industries	Malagarasi Basin
Ndovu Resources	Nyuni
	Mtwara
	Lindi
Ophir	East Pande
Petrobras/ Shell	Block 6
	Block 8
Statoil/ExxonMobil	Block 2
Swala	Pangani Basin
	Kilosa

Natural Gas Production

Tanzania's existing gas producing fields are small and it took decades for them to begin commercial production due to infrastructural problems, lack of a local market and the impracticability of export-related production because of limited reserves. The Songo-Songo field, which is operated by Pan African Energy, is currently run at production levels of up to 110 million cubic feet per day (mmcf/d). The field has been in production since 2004. It provides gas to generate a significant proportion of Tanzania's electricity. Its gas

^{666 &}quot;The Deloitte Guide to Oil and Gas in East Africa" "Deloitte" retrieved 05 December 2014.

^{667 &}quot;Production" "Pan African Energy" retrieved 05 December 2014.

is used by a number of industrial and commercial customers in Dar es Salaam.⁶⁶⁸ The Mnazi Bay field began delivering gas in January 2007 through a 17-mile pipeline to the 12 MW Mtwara electric power station.⁶⁶⁹ It is currently operated by Maurel et Prom in partnership with Wentworth Resources and the TPDC.⁶⁷⁰ On 12 September 2014, the partners signed a Gas Sales Agreement with the Tanzania government to deliver up to 130 mmcf/d of natural gas from the Mnazi Bay concession to a new government-owned Mtwara-Dar es Salaam Gas Pipeline that is expected to be operational by 2015.

7.2 Oil and Gas Fields in Tanzania

Introduction

The gas fields that are ready for production in Tanzania are the Songo-Songo⁶⁷¹, Mnazi Bay and Msimbati-1⁶⁷² as well as the Kiliwani North (KN-1) fields.⁶⁷³ The Songo-Songo field is operated by Orca Exploration under a Production Sharing Agreements (PSA) with the Tanzania Petroleum Development Corporation (TPDC) and is Tanzania's first natural gas development project. It covers an area of 170 km² around 15 kilometres offshore. The field is located near Songo-Songo Island and has about 879 BCF gross resources in place.⁶⁷⁴ A total of 667 BCF have been discovered so far at Mnazi Bay gas field, on- and offshore Tanzania's coastline. Discovered initially by ENI in 1981, after the company drilled an offshore well, Wentworth Resources discovered the Msimbati-1 gas field in 2005. Four wells are ready for production. The first gas is expected to be delivered by early 2015.⁶⁷⁵ At the moment, the 756 km² area⁶⁷⁶ is operated by Maurel et Prom.⁶⁷⁷ Ndovu (Aminex), the operator of the Kiliwani-

^{668 &}quot;The Deloitte Guide to Oil and Gas in East Africa" "Deloitte" retrieved 05 December 2014.

^{669 &}quot;2008 International Petroleum Encyclopedia" "Pennwell Corporation", retrieved 05 December 2014.

 $^{670\,}$ "The Deloitte Guide to Oil and Gas in East Africa" "Deloitte" retrieved 05 December 2014.

^{671 &}quot;About us" "Orca Exploration" retrieved 01 December 2014.

^{672 &}quot;Mnazi-Bay" "Wentworth Resources", retrieved 01 December 2014.

^{673 &}quot;Tanzania Kiliwani", "Aminex Operations", retrieved 01 December 2014.

^{674 &}quot;About us" "Orca Exploration" retrieved 01 December 2014.

^{675 &}quot;Tanzania" "Wentworth Resources" retrieved 01 December 2014.

^{676 &}quot;Mnazi Bay" "Wentworth Resources" retrieved 01 December 2014.

^{677 &}quot;Tanzania signs gas deal with France's Maurel & Prom and partners" "Reuters" retrieved 01 December 2014.

North field estimates 45 BCF to be in place. The field is ready to produce and is awaiting the completion of a pipeline and processing facility. 678

Offshore Exploration

Four of the eight currently operated offshore blocks received new bids in the latest biding round that ended in May 2014. First-time bidders for a Tanzanian offshore block included Russia's Gazprom and the Chinese offshore-producer CNOOC Ltd. The BG Group and its partner Ophir Energy did not submit a new bid in the round. ⁶⁷⁹ BG has been operating blocks 1, 3 and 4 since 2010 and has made ten gas discoveries in the area thus far, with 15 Tcf estimated to be in-place. ⁶⁸⁰ In 2013, Pavilion Energy acquired 20 percent interest in blocks 1, 3 and 4⁶⁸¹ and in late 2014 BG withdrew from Block 3. Its partners continue with the exploration. ⁶⁸²

Ophir Energy, with a 20 percent non-operated interest in the blocks, took over Dominion Petroleum in February 2012 and so gained the company's 80 percent asset in Block 7.683 Ophir Energy has not found any movable hydrocarbon in Block 7 thus far.684 Petrobras entered into a PSA with the TPDC for Block 5 in 2004, and in 2011 signed a farm out agreement with Shell Deepwater Tanzania BV, which acquired a 50 percent interest.685 The Zeta-1 well drilled the same year was unsuccessful.686

In 2006, Petrobras signed a PSA with the TPDC for Block 6, covering 5549 km² in the Mafia Basin.⁶⁸⁷ In 2013, Statoil acquired a 12 percent interest in the block from Petrobras. Since 2007, Statoil has

^{678 &}quot;Tanzania Kiliwani" "Aminex Operations" retrieved 01 December 2014.

^{679 &}quot;Tanzania exploration" "Reuters" retrieved 01 December 2014.

^{680 &}quot;Where We Work/ Tanzania" "BG Group" retrieved 01 December 2014.

^{681 &}quot;Temasek's Pavillion pays 1.3 billion for stake in Tanzania gas" "Bloomberg", retrieved 01 December 2014.

 $^{^{682}}$ " BG to exit Block 3 Ophir considers three train LNG plant" "Interfaxenergy. com" retrieved 01 December 2014.

^{683 &}quot;Preliminary Results" "Ophir Energy" retrieved 01 December 2014.

^{684 &}quot;Ophir Energy unsuccessful in Tanzanias East Pande Block and Block 7" "Oil News Kenya" retrieved 01 December 2014.

^{685 &}quot;Petrobras and Shell team up in Tanzania oil and gas exploration" "Nogtec.com" retrieved 01 December 2014.

^{686 &}quot;Zeta-1 Well a no show for Tanzania" "Petroleumafrica" retrieved 01 December 2014.

^{687 &}quot;Petrobras farms out Tanzanian offshore block to Statoil" "Oil Review Africa" retrieved 01 December 2014.

been operating in the 5,500 km² sized Block 2.⁶⁸⁸ The company, in partnership with ExxonMobil, ⁶⁸⁹ has made six gas discoveries so far in this block. The discoveries, four of which were made in the 2012/13 period, another two in 2014 confirmed the presence of around 21 Tcf of in-place gas.⁶⁹⁰ Furthermore, a mean of 5.7 Tcf is estimated to be located in the Nyuni licence area (1,689 km²) operated by Ndovu (Aminex) with a 70 percent stake. Aminex Operations Tanzania.⁶⁹¹

Onshore Exploration

Onshore Exploration activities in Tanzania focus on areas that form parts of, or border the East African Rift System (EARS). Two billion barrels of oil were previously discovered in the Ugandan Lake Albert Basin. Since November 2011, Heritage Oil has been carrying out explorations on the 8,745 km² Rukwa South area. Since January 2012, it also acquired the 1,934 km² Kyela licence.

Drilling operations were set to start in 2014/15 with both areas sharing geological similarities with the hydrocarbon profile of the Lake Albert Basin. 692 Both of Swala-Energies licences are part of the EARS, the Kilosa-Kilombero area (17,675 km²) which is analogous to an area where the company previously found oil, 693 and the Pangani licence, a 17,156 km² large area on the Pangani Rift. 694

At the moment, Jacka Resources awaits ministerial PSA approval⁶⁹⁵ to explore the 8,400 km² Ruhuhu Basin which borders the Lake Malawi Basin to the west, itself a part of the EARS. The company planned to drill an explanatory well in 2014.⁶⁹⁶ Lake Tanganyika lies on the western arm of the EARS. In 2010, Beach Energy and the TPDC signed a PSA for the Lake Tanganyika South Block. Data dating back to the 1980s suggest the potential for a petroleum system beneath the lake.⁶⁹⁷ Ras-Al-Kaimah submitted a bid for the Lake Tanganyika North Block (9,670.2 km²) in the latest bidding round.⁶⁹⁸

^{688 &}quot;Tanzania" "Statoil" retrieved 01 December 2014.

^{690 &}quot;Tanzania Overview" "ExxonMobil", retrieved 01 December 2014.

^{691 &}quot;Operations Tanzania" "Aminex" retrieved 01 December 2014.

^{692 &}quot;Operations" "Heritage Oil" retrieved 01 December 2014.

^{693 &}quot;Kilosa Kilombero" "Swala Energy" retrieved 01 December 2014.

^{694 &}quot;Pangani" "Swala Energy" retrieved 01 December 2014.

^{695 &}quot;Tanzania" "Jacka Resources" retrieved 01 December 2014.

^{696 &}quot;Ruhuhu Basin" "OGJ" retrieved 01 December 2014.

^{697 &}quot;Tanzania Exploration" "Beach Energy" retrieved 01 December 2014.

^{698 &}quot;Tanzania Exploration" "Reuters" retrieved 01 December 2014.

Several onshore licence areas are still open acreage, as the Lake Eyasi licence for which French Total showed interest in 2014.⁶⁹⁹

The Ntorya-1 Well drilled in the Ndovu (Aminex) operated Ruvuma licence (3,447 km²) has led to the discovery of about 1.9 Tcf. 700 Aimed at exploring the oil potential of the Ruvuma-Basin, the Likonde-1 well was a technical success but a commercial failure. 701

On- and off-shore Exploration

No movable hydrocarbon has yet been found in the East-Pande licence area operated by Ophir Energy,⁷⁰² which partners with Ras-Al-Kaimah. Ophir Energy.⁷⁰³ The Bigwa, Rufiji-Mafia concession is operated by Maurel et Prom. A seismic survey found some gas but not in commercial quantities.⁷⁰⁴

7.3 Block 1

Overview

Block 1 is located in the Mafia Deep Basin off-shore from the Rovuma and Rufiji deltas on the border with Mozambique. Water depths range from 100 to 3,000 metres. It is operated by BG Group with 60% working interest. Ophir Energy and Pavillion Energy each hold 20%. To Six discoveries have been made in Block 1 since 2010 within 100 kilometres of the shore and in water depths of 900 to 1,600 metres. Four of these are Tertiary reservoirs (Chaza, Jodari, Jodari North and Mkizi) and two are Cretaceous (Mzia and Taachui). Mzia (4.7 Tcf total gross resource) and Jodari (4 Tcf total gross resource) are both classified as giant discoveries. Four Drill Stem tests have been conducted on Jodari, Mzia (two DSTs) and Taachui.

^{699 &}quot;Tanzania talks with Total, BP on hydrocabon exploration" "Reuters" retrieved 01 December 2014.

^{700 &}quot;Tanzania Ruvuma" "Aminex" retrieved 01 December 2014.

^{701 &}quot;Aminex suffers as Likonde 1 is deemed a technical success but commercial failure" "Oilbarrel.com" retrieved 01 December 2014.

^{702 &}quot;Ophir Energy unsuccessful in Tanzanias East Pande Block and Block 7" "Oilnewskenya.com" "retrieved 01 December 2014.

^{703 &}quot;Annual Report and Accounts 2013" "Ophir Energy" retrieved 01 December 2014.

^{704 &}quot;East Africas Tanzania oil and gas" "Mergers & Acquisitions Blogspot" retrieved 01 December 2014.

^{705 &}quot;Where we work" "BG Group" retrieved 05 December 2014.

^{706 &}quot;Where we work" "BG Group" retrieved 05 December 2014.

Chronology

- At the end of the The Licensing Rounds in 2005, Block 1 was awarded to Ophir Energy.⁷⁰⁷
- In May 2010, Ophir Energy farmed down a 60% stake and operatorship in Block 1 to the BG Group.⁷⁰⁸
- In April 2011, Ophir Energy and BG announced their first gas discovery in Block 1. The discovery was made in the Chaza-1 exploration well. The well is located 18 km from the coastline 952m deep in water. The well has a high quality gas bearing reservoir.⁷⁰⁹
- In March 2012, the success registered at Jodari-1 well in Block 1 was announced. The estimated recoverable mean resource numbered 3.4 Tcf.⁷¹⁰
- In May 2012, BG and Ophir Energy first announced a gas discovery in the Mzia-1 well with mean recoverable resources estimated at 3.5 Tcf with a significant potential upside. The well is located 45km off the coast of Tanzania and 45km north of the Mozambique maritime border 711
- In September 2012, it was announced that additional seismic and petrophysical analysis has increased the expected mean in-place resources for the Mzia discovery to 6 Tcf.⁷¹²
- In February 2013, Ophir Energy and BG announced the successful results of their appraisal programme on the Mzia field and the commencement of their Block 1 flow-testing programme.⁷¹³

^{707 &}quot;Tanzania Licensing Rounds" "TPDC" retrieved 02 December 2014.

^{708 &}quot;Farm-out agreement with BG International Tanzania" "Ophir Energy" retrieved 05 December 2014.

^{710 &}quot;Result of Jodari-1 well in Block 1 offshore Tanzania" "Ophir Energy" retrieved 05 December 2014.

^{711 &}quot;Mzia-1 gas discovery Block 1 offshore Tanzania" "Ophir Energy" retrieved 05 December 2014.

^{712 &}quot;East-Africa operations Update" "Ophir Energy" retrieved 05 December 2014.

^{713 &}quot;Mzia-2 appraisal announcement" "Ophir Energy" retrieved 05 December 2014.

- In March 2013, the operating companies announced the successful completion of the Drill Stem test on the Jodari-1 well in Block 1. The test was the first deep-water, offshore production test in the Tanzania waters. The test validated the resource potential of the Jodari Field.⁷¹⁴
- In May 2013, BG and Ophir Energy announced the successful Mzia-2 Drill Stem Test. The test increased the estimated mean recoverable resources from the Mzia Field from 3.5 Tcf to 4.5 Tcf.⁷¹⁵
- In July 2013, the success of the Mkizi-1 well in Block 1 was announced. The well is located 1,301m deep in water between the Mzia and Jodari discoveries in Block 1. It is estimated that the recoverable resources from the discovery are 0.6 Tcf.⁷¹⁶
- In November 2013, Ophir and BG announced the successful appraisal of the Mzia discovery in Block 1. The Mzia-3 appraisal well was drilled 6km north of the Mzia-1 discovery well. The well has confirmed reservoir quality in line with that of Mzia-1 and Mzia-2 wells. Provisional interpretation of the Mzia-3 results has increased the overall mean contingent recoverable resource for the Mzia discovery by 0.7 Tcf to 5.3 Tcf.⁷¹⁷
- In 2013, GAIL India and Pavillion Energy bid to acquire stakes in blocks 1, 3 and 4. In December, Pavillion Energy announced having entered an agreement with Ophir Energy to purchase 20% interest in Blocks 1, 3 and 4 from the latter for a sum of USD 1.288 billion.⁷¹⁸
- In June 2014, Ophir and BG announced the success results of the Taachui-1 and subsequent Taachui-1 ST1 well in Block 1 which has resulted in a new gas discovery. The Taachui-1 well is located near the western boundary of Block 1 and was drilled to a total depth of 4,215m. Estimates for the mean recoverable resource from the discovery are at 1.0 Tcf.⁷¹⁹

^{714 &}quot;Jodari-1 Results" "Ophir Energy" retrieved 05 December 2014.

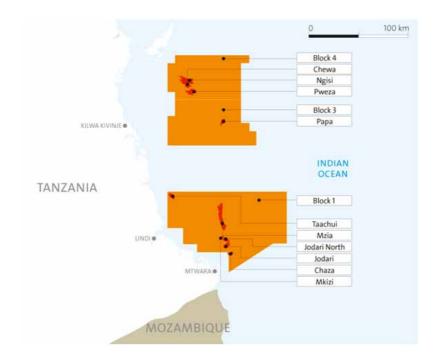
^{715 &}quot;Mzia-2 Results" "Ophir Energy", retrieved 05 December 2014.

^{716 &}quot;Tanzania Block 4 successful Ngisi drilling upgrades resources in Block 4" "Ophir Energy" retrieved 05 December 2014.

^{717 &}quot;Successful Mzia-3 appraisal well" "Ophir Energy" retrieved 05 December 2014.

^{718 &}quot;Tanzania blocks Ophir Energy gas block" "Economic Times" retrieved 05 December 2014.

^{719 &}quot;[https://www.ophir-energy.com/media-centre/press-releases/taachui-gas-discovery.aspx "Ophir Energy" retrieved 05 December 2014.



7.4 Block 2

Overview

The exploration licence on Block 2 is operated by Statoil on behalf of the Tanzania Petroleum Development Corporation (TPDC) with a 65% working interest. ExxonMobil Exploration and Production Tanzania Limited hold the remaining 35%. The block is located in the Mafia Deep Basin offshore from the Rovuma and Rufiji deltas in Mtwara region in southern Tanzania. The block covers an area of 11,099 square kilometres and has water depths of up to 3,000 metres. The total of in-place volumes is approximately 21 Tcf of natural gas.

^{720 &}quot;Press Release March 2014" "Statoil" retrieved 08 December 2014.

^{721 &}quot;Awarded Exploration Arcreage In Tanzania" "Statoil" retrieved 08 December 2014.

^{722 &}quot;Press Release 14 October 2014" "Statoil" retrieved 08 December 2014.

Chronology

- At the end of the Third Licensing Round in 2005, Block 2 was awarded to Statoil.⁷²³
- On 18 April 2007, Statoil signed a Production Sharing Agreement (PSA) with the Tanzania government and the Tanzania Petroleum Development Corporation (TPDC).⁷²⁴
- In March 2010, Statoil and ExxonMobil announced that they had signed an agreement to transfer 35% of Statoil's interest in Block 2 to ExxonMobil.⁷²⁵
- In February 2012, it was announced that the partnership made a high impact discovery in the Zafarani exploration well, providing up to 5 Tcf of the gas in-place.⁷²⁶
- In June 2012, Statoil and ExxonMobil announced that they made a second high impact discovery in Block 2. The discovery was made in the Lavani well with a preliminary resource estimate of 3 Tcf of gas in-place. The Lavani well is located 16 km south of the Zafarani well.⁷²⁷
- In December 2012, the partnership announced the third discovery in the block. The discovery in Lavani-2 well successfully appraised the Lavani-1 discovery reservoir. The Lavani-2 well is located about 5 km southeast of the Lavani-1 discovery and 20 km south of the Zafarani-1 well.⁷²⁸
- In March 2013, the discovery of 4-6 Tcf of natural gas in-place in the Tangawizi-1 well was announced. This discovery brought the total in-place volumes in Block 2 to 15-17 Tcf.⁷²⁹

^{723 &}quot;Tanzania Licensing Rounds" "TPDC" retrieved 02 December 2014.

^{724 &}quot;Awarded Exploration Arcreage In Tanzania" "Statoil" retrieved 08 December 2014.

^{725 &}quot;Press Release 31 March 2010" "Statoil" retrieved 08 December 2014.

^{726 &}quot;Press Release 24 February 2012" "Statoil" retrieved 08 December 2014.

^{727 &}quot;Press Release 14 June 2012" "Statoil" retrieved 08 December 2014.

^{728 &}quot;Press Release 20 December 2012" "Statoil" retrieved 08 December 2014.

^{729 &}quot;Press Release 18 March 2013" "Statoil" retrieved 08 December 2014.

- In December 2013, the partners announced the discovery of an additional 2-3 trillion Tcf of natural gas in-place in the Mronge-1 well that brought the total of in-place volumes to 17-20 Tcf in the block.⁷³⁰
- In March 2014, Statoil and ExxonMobil announced the positive results from their first drill stem test in the block.⁷³¹
- In June 2014, the discovery of an additional 2-3 Tcf of natural gas in-place in the Piri-1 well that brought the total of in-place volumes to about 20 Tcf in the block was announced.⁷³²
- In October 2014, the partnership announced the seventh discovery in the block. The discovery of about 1.2 Tcf was made in the Giligiliani-1 well and brought the total of in-place volumes to about 21 Tcf.⁷³³
- On 30th March 2015, Statoil announced an eight discovery of an additional 1.0-1.8 tfc of natural gas in Block 2. The discovery in the Mdalasini-1 well, brings the total volumes of natural gas to 22Tcf in the block.⁷³⁴

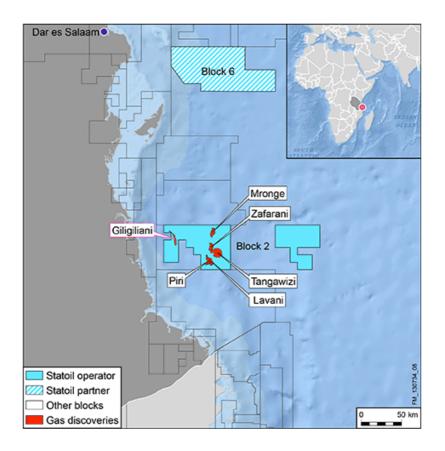
^{730 &}quot;Press Release 06 December 2013" "Statoil" retrieved 08 December 2014.

^{731 &}quot;Press Release 03 March 2014" "Statoil" retrieved 08 December 2014.

^{732 &}quot;Press Release 18 June 2014" "Statoil" retrieved 08 December 2014.

^{733 &}quot;Press Release 14 October 2014" "Statoil" retrieved 08 December 2014.

^{734 &}quot;Statoil makes its eighth discovery in Block 2 offshore" "Statoil" retrieved 10 August 2015.



7.5 Block 3

Overview

Block 3 is located in the Mafia Deep Basin offshore from the Rovuma and Rufiji Deltas with water depths ranging from 100 to 3,000 metres. Ophir Energy operates the block with 80% and Pavillion Energy holds a 20% stake. So far, only one well has been drilled on the block, the Papa-1 well, where gas was discovered in 2012.⁷³⁵

^{735 &}quot;BG Group exits Tanzania Block 3 gas license" Reuters, retrieved 05 December 2014.

Chronology

- In April 2006, Block 3 was directly awarded to Ophir Energy by the Government of Tanzania. 736
- In May 2010, BG Group acquired 60% of Ophir's interests in the Block 3 Production Sharing Agreement (PSA).⁷³⁷
- In August 2012, Ophir Energy and BG Group announced that the Papa-1 well has made the first cretaceous gas discovery in Block
 The preliminary analysis of the discovery suggest an in-place resource of 0.5 - 2.0 Tcf.⁷³⁸
- In 2013, GAIL India and Pavillion Energy bid to acquire stakes in blocks 1, 3 and 4. In December 2013, Pavillion Energy announced that it had entered an agreement to purchase 20 per cent interest in blocks 1, 3 and 4 from Ophir Energy for a consideration of USD 1.288 billion.⁷³⁹
- In October 2014, BG Group announced that it had withdrawn from the licence for Block 3 as it was not worth further exploration. In consequence, Ophir Energy applied to the Government of Tanzania to take over BG's 60% interest and operatorship of the licence, hence bringing its stake in the block to 80%.⁷⁴⁰

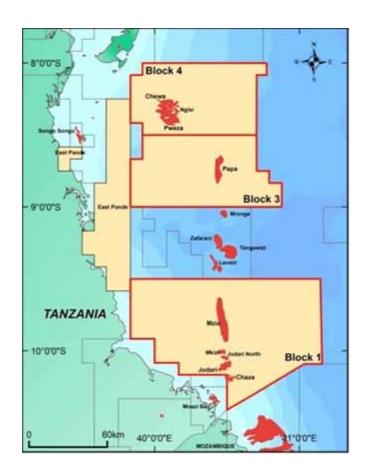
^{736 &}quot;Tanzania Licensing Rounds" "TPDC" retrieved 02 December 2014.

^{737 &}quot;Farm-out agreement with BG International Tanzania" "Ophir Energy", retrieved 05 December 2014.

^{738 &}quot;Papa-1 opening first cretaceous gas discovery outboard of the Rufiji Delta Block 3 Tanzania" "Ophir Energy" retrieved 05 December 2014.

^{739 &}quot;Tanzania blocks Ophir Energy gas block" "Economic Times" retrieved 05 December 2014.

^{740 &}quot;BG Group exits Tanzania Block 3 gas license" Reuters, retrieved 05 December 2014.



7.6 Block 4

Overview

Block 4 is located in the Mafia Deep Basin off-shore from the Rovuma and Rufiji deltas with water depths ranging from 100 to 3,000 metres. It is operated by BG Group with a 60% working interest; Ophir Energy and Pavillion Energy both hold a 20% stake each. So far, three discoveries have been made in the block: Pweza and Chewa in 2010 and Ngisi in 2013.

^{741 &}quot;Where we work", "BG Group", retrieved 05 December 2014.

Chronology

- In April 2006, Block 4 was directly awarded to Ophir Energy by the Government of Tanzania.⁷⁴²
- In May 2010, Ophir Energy farmed down a 60% stake and operatorship to the BG Group.⁷⁴³
- In October 2010, the partners announced the first discovery in the block. The discovery was made in the Pweza-1 exploration well and encountered a thick section of gas bearing sands. The well is located 85km from the coastline in 1,400m depth of water.⁷⁴⁴
- In December 2010, a second discovery was announced. The discovery was made in the Chewa-1 exploration well, which is located some 80km from the coastline in 1,315m water depth.⁷⁴⁵
- In July 2013, the partnership announced the positive results of its Ngisi drilling programme and thus upgraded the recoverable resources across the Chewa-Pweza-Ngisi hub in the block to 4.5 Tcf. The Ngisi-1 well was drilled 5km to the North East of the Chewa-1 well.⁷⁴⁶
- In August 2014, the successful completion of the Pweza-2 appraisal well was announced. The well was drilled 2km to the south of the Pweza-1 discovery well. The result firmed up the resource estimates for the Pweza field at 1.7 Tcf of the gross recoverable resource.⁷⁴⁷
- In October 2013, BG and Ophir announced the successful completion of the Pweza-3 appraisal well and flow test. The well was drilled some 2km north of the original Pweza discovery well.
 A Drill Stem Test confirmed that the Tertiary reservoirs in Block 4 have similar characteristics to those in Block 1.748

^{742 &}quot;Tanzania Licensing Rounds", "TPDC", retrieved 02 December 2014.

^{743 &}quot;Farm-out agreement with BG International" "Ophir Energy" retrieved 05 December 2014.

^{744 &}quot;Gas discovery Pweza-1 well Block 4 offshore Tanzania" "Ophir Energy" retrieved 05 December 2014.

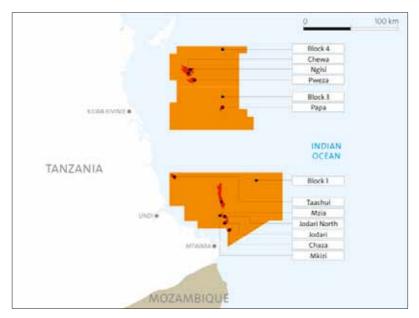
^{745 &}quot;Second gas discovery Block 4 offshore Tanzania" "Ophir Energy" retrieved 05 December 2014.

^{746 &}quot;Tanzania Block 4 successful Ngisi drilling upgrades resources in Block 4" "Ophir Energy" retrieved 05 December 2014.

^{747 &}quot;Tanzania Block 4 successful Pweza-2 drilling update" "Ophir Energy" retrieved 05 December 2014.

^{748 &}quot;Successful Pweza flow test and Mlinzi drilling update" "Ophir Energy" retrieved 05 December 2014.

In 2013, GAIL India and Pavillion Energy bid to acquire stakes in blocks 1, 3 and 4. In December, Pavillion Energy announced that it had entered an agreement to purchase 20 per cent interest in Blocks 1, 3 and 4 from Ophir Energy for a consideration of USD 1.288 billion.⁷⁴⁹



7.7 Block 5

Block 5 is located in the Indian Ocean at water depths ranging from 600 to 3,000 metres. It is operated by Petrobras with Shell holding a 50 percent interest. Block 5 was the first off-shore block awarded to an international oil and gas company. In 2001, the block was awarded to Petrobras at the end of the first licensing round. In late 2011, the energy firm farmed out a 50 percent stake in the block to Shell. In August 2011, the partners started the Zeta-1 well.

^{749 &}quot;[http://articles.economictimes.indiatimes.com/2013-12-01/ news/44619593_1_tanzania-blocks-ophir-energy-gas-block, retrieved 05 December 2014.

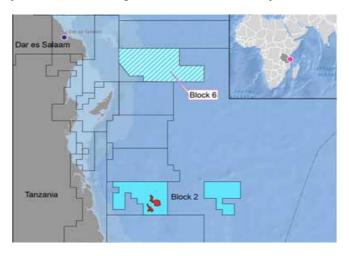
^{750 &}quot;Petrobras farms out Tanzanian offshore block to Statoil" "Oil Review Africa" retrieved 05 February 2015.

^{751 &}quot;Petrobras farms out Tanzanian offshore block to Statoil" "Oil Review Africa", retrieved 05 February 2015.

However, the well drilled by the Ocean Rig Poseidon drillship was plugged and abandoned in 2012 which forced Shell to write off about US\$ 200 million.⁷⁵² In 2012, a second well was drilled but no results have been announced in the block yet.⁷⁵³

7.8 Block 6

Block 6 covers 5,549 km² in the Mafia basin in offshore Tanzania, with a water depth of 1,800 metres. It is located approx.170 kilometres north of Block 2, where Statoil has made several high-impact gas discoveries. The block is operated by Petrobras Tanzania Ltd. which holds a 38 percent working interest, Shell Deepwater Tanzania B.V. with a 50 percent stake and Statoil with a 12 percent working interest. The block was first awarded to Petrobras during the third licensing round in 2005. In 2011, Petrobras entered into a farmout agreement by granting 50 percent of its share to Shell. Finally, Petrobras agreed to farm-out a 12 percent working interest to Statoil in May 2013. No findings have been announced yet.



^{752 &}quot;Shell to write off 200 million on Tanzania well Bernstein says" "Bloomberg" retrieved 05 February 2015.

^{753 &}quot;Tanzanian investment to continue" "OEdigtal" retrieved 05 February 2015.

^{754 &}quot;Petrobras sells 12 pct in Tanzanian offshore block to Statoil" "Offshore Energy Today" retrieved 03 February 2015.

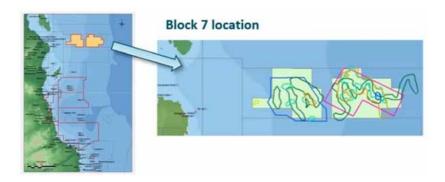
^{755 &}quot;Petrobras sells 12 pct in Tanzanian offshore block to Statoil" "Offshore Energy Today" retrieved 03 February 2015.

^{756 &}quot;Tanzania Licensing Rounds" "TPDC" retrieved 03 February 2015.

7.9 Block 7

Block 7 is located to the north of the significant gas discoveries in blocks 1, 2, 3 and 4. It was awarded to Ophir Energy's subsidiary Dominion Petroleum in January 2007. It is operated by the company with a 80 percent working interest. In November 2013, Dominion commenced drilling of the first well in Block 7. The Mlinzi Mbali-1 well is located approx. 210km east of Dar es Salaam in a water depth of approximately 2,600m. It was drilled by the Deepsea Metro I drillship. Pre-drill estimates showed that the reservoirs had a potential of containing up to 10Tcf of natural gas. In January 2014, Ophir announced that drilling operations have been concluded and that no live hydrocarbons were confirmed.

In November 2014, Ophir announced that the second well drilled in the block did not yield moveable hydrocarbons either. According to the company, gas shows were seen in the primary target at the Mkuki-1 well but moveable hydrocarbons could not be confirmed.⁷⁶⁰



^{757 &}quot;TPDC awards blocks 7 and 8 to Dominion Petroleum and Petrobras" "Mbendi" retrieved 02 February 2015.

^{758 &}quot;Tanzania: Mlinzi drilling operations commence" "London Stock Exchange" retrieved 02 February 2015.

^{759 &}quot;Tanzania: Ophir Energy's Mlinzi Mbali-1 well in Tanzania offshore Block 7 disappoints" "Energy-Pedia" retrieved 02 February 2015.

^{760 &}quot;Ophir comes up dry at Mkuki 1 well off Tanzania" 1derrick" retrieved 02 February 2015.

8. Key Infrastructure

8.1 Overview: Oil and Gas Infrastructure in Tanzania

Pipelines

SongoSongo - Somanga Funga-Dar es Salaam

In October 1995, Ocelot Tanzania Inc. and TransCanada Pipeline Limited (TCPL Tanzania Inc.), in partnership with the Government of Tanzania, the Tanzania Electric Supply Company Limited (TANESCO) and Tanzania Petroleum Development Corporation (TPDC), created SONGAS Limited. SONGAS Ltd has developed the SongoSongo gas field in Kilwa District, Lindi Region, by constructing gas processing facilities on SongoSongo Island and a pipeline to transport the natural gas to Dar es Salaam where it is used as a feedstock for five gas turbine electricity generators. 761 The two (2) processing plants at Songo Songo with a capacity of 35 million cubic feet per day (MMCFD) are owned by the Government of Tanzania.762 Processed gas is transported through a 25km, 12-inch pipeline from SongoSongo to Somanga Funga, and from Somanga Funga through a 207km 16-inch pipeline to Ubungo, Dar es Salaam.⁷⁶³ Construction of the pipeline commenced in 2003 and was completed in May 2004. The first gas supply reached Dar es Salaam in July 2004. Commercial operations of the project began in earnest in July 2004.764

Mtwara-Dar es Salaam

The \$1.225 billion⁷⁶⁵ project is being undertaken by the China National Petroleum Corporation. It is being financed through a loan from China's Exim Bank and is expected to be completed in 2015.

^{761 &}quot;Songo Songo Gas to Electricity Project" "TPDC" retrieved on 9th November 2014.

^{762 &}quot;SongoSongo Dar-es-Salaam gas pipeline construction on schedule" "Tanzania Invest" retrieved on 9th November 2014.

^{763 &}quot;SongoSongo Dar-es-Salaam gas pipeline construction on schedule" "Tanzania Invest" retrieved on 9th November 2014.

^{764 &}quot;Songo Songo Gas to Electricity Project" "TPDC" retrieved on 9th November 2014.

^{765 &}quot;Project to end Tanzania power rationing" "The East African" retrieved on 9th November 2014.

It has an initial capacity of 350 MMCFD, with the numbers doubling at optimal production to 750 MMCGD of gas. The project involves the construction of a 24 - 36 inch diameter pipeline from Mnazi Bay in Mtwara to be connected at Somanga Funga with gas from the SongoSongo in Lindi region, and then transported onto Dar es Salaam via pipeline. Two gas processing plants at Madimba and Somanga Funga are concurrently being constructed by the Tanzania Electric Supply Company (TANESCO) and the projects are expected to be commissioned by the end of 2014.

The existing 16-inch pipeline between Somanga Funga and Dar es Salaam is being expanded to 36 inches. The will have the capacity to transport 210 MMCFD, up from the current 105 MMCFD. The existing 16 inch natural gas pipeline from SongoSongo to Dar es Salaam, owned by SONGAS Ltd, has been facing capacity constraints amidst growing demand for gas and energy. Solaam, owned by SONGAS Ltd, has been facing capacity constraints amidst growing demand for gas and energy.

Potential and planned extensions

With the intention of increasing trade, the Kenyan and Tanzanian governments wish to construct a 530km long natural gas pipeline from Dar es Salaam to Tanga in Tanzania and Mombasa in Kenya. The proposed gas pipeline would include gas skid supply terminals in Tanga and Mombasa. The East African Community (EAC) commissioned COWI in partnership with Runji and Partners to undertake feasibility study of the pipeline. 770

LNG Facilities

Statoil and BG group are in preliminary discussions to set up a two-train LNG facility at an estimated cost of US\$ 14 billion. Their joint operation could become the first in the country that so far has recoverable natural gas estimates of more than 50 Tcf.⁷⁷¹

^{766 &}quot;SongoSongo Dar-es-Salaam gas pipeline construction on schedule" "Tanzania Invest" retrieved on 9th November 2014.

^{767 &}quot;Natural gas infrastructure being established for power in Tanzania" "ESI-Africa" retrieved on 9th November 2014.

^{768 &}quot;Natural gas infrastructure being established for power in Tanzania", "ESI-Africa" retrieved on 9th November 2014.

^{769 &}quot;Project to end Tanzania power rationing" "The East African" retrieved on 9th November 2014.

^{770 &}quot;Feasibility study for natural gas pipeline, Tanzania and Kenya" "Cowi-Africa" retrieved on 9th November 2014.

^{771 &}quot;Dar gas cache now at 51tr cubic feet" "The Citizen" retrieved on 9th November 2014.

Although an exact timeline and site to build the LNG facility is not yet clear, some analysts estimated a period of seven years.⁷⁷²

Power Plants

Mtwara

US-based energy company, Symbion Power, TANESCO and General Electric International struck a deal in 2013 to develop a 600MW gas-fired power plant in Mtwara to power the Southern regions of Tanzania.⁷⁷³

8.2 Kinyerezi Power Plants

Kinyerezi I and Kinyerezi II

Kinyerezi I and Kinyerezi II are gas-fired power plants that are being constructed at Kinyerezi in Dar es Salaam. They will be supplied with gas from Mtwara through the Mtwara-Dar es Salaam pipeline. Kinyerezi I will have the capacity to generate 150MW. 774 The project costs for the Kinyerezi I power plant amount to 183 million US dollars. The funds for the construction of the plant have been provided by the government through TANESCO. The project is being implemented by the Jacobsen Electro Company from Norway. The plant is expected to come online in 2015.775 In January 2015 the Chairman of TANESCO noted that Kinverezi I was scheduled for completion in March 2015 but due to financial constraints it has been forced to delay till June. 776 The Kinyerezi II plant is being financed through a partnership between the governments of Tanzania and Japan and it is being implemented by Japan's Sumitomo Corporation. Kinyerezi II will generate 240MW. It is expected to come online by December 2015.777 The Kinyerezi power plants I and II are expected to cover about 20 percent of the

^{772 &}quot;Tanzania Gas Infrastructure Plans for LNG Facility" "Ratio-Magazine" retrieved on 9th November 2014.

^{773 &}quot;Giant US firms sign pact in power production in Mtwara" "IPPMedia" retrieved on 9th November 2014.

^{774 &}quot;Ministry promised historic development plan on energy projects" "Parliament of Tanzania", retrieved 25 February 2015.

^{775 &}quot;Kinyerezi Power Plant to add 150 megawatts" "Pesatimes" retrieved 25 February 2015.

^{776 &}quot;TANESCO board promises timely completion of power projects" "Daily News", retrieved 03 May.

^{777 &}quot;Kinyerezi Power Plant to add 150 megawatts" "Pesatimes" retrieved 25 February 2015.

country's electricity demand. The project is expected to provide many residents who have been facing power problems for many years with relief.⁷⁷⁸

Kinyerezi III and Kinyerezi IV

The Kinyerezi III project is a joint venture agreement between TANESCO and the Shanghai Electric Power Company. The Kinyerezi III plant is expected to produce 300 MW. Shanghai Electric Power owns a 60 percent share in the plant, with TANESCO holding the remaining 40 percent. The joint venture agreement was signed in October 2014. Feasibility studies were concluded in January 2014. The partners predict that the first of the two 180-MW units should come online by the end of 2015. The second unit of the first stage should be connected in mid-2016.⁷⁷⁹ Following the conclusion of the project, the output will be directed to a 400-KV substation, currently being developed at Kinyerezi for onward connection to the national electricity grid.⁷⁸⁰ The Kinyerezi IV power plant is being developed by the Poly Group of China and should be contributing to the national grid by the second half of 2015. The plant will have a capacity of 450 MW.⁷⁸¹

8.3 LNG Facility in Tanzania

LNG

LNG or Liquefied Natural Gas, is a clear, colourless, non-toxic liquid, produced by cooling natural gas to -260° Fahrenheit (-160°C), at which point it becomes liquid.⁷⁸² This process occurs to allow for more efficient transport of natural gas, either by truck or by sea.⁷⁸³

LNG takes up 600 times less space than natural gas in its gaseous form. The Converting natural gas into LNG can make stranded natural

^{778 &}quot;Government outlines new power sources" "IPP Media" retrieved 25 February 2015.

^{779 &}quot;Construction at the Kinyerezi III power plant" "The oil and gas year" retrieved 25 February 2015.

^{780 &}quot;Construction at the Kinyerezi III power plant", "The oil and gas year" retrieved 25 February 2015.

^{781 &}quot;Construction at the Kinyerezi III power plant" "The oil and gas year" retrieved 25 February 2015.

^{782 &}quot;What is LNG?" "Shell" retrieved 8th November 2014.

^{783 &}quot;Overview about LNG" "Center for Liquified Natural Gas" retrieved 08 November 2014.

^{784 &}quot;Focus on LNG" "NaturalGas.org" retrieved 8th November 2014.

gas deposits more economically viable, as constructing pipelines can be expensive. In addition, LNG will not explode in an unconfined environment, so in the unlikely event of an LNG spill, the natural gas has little chance of igniting an explosion. Other benefits of LNG include the fact that the liquification process removes oxygen, carbon dioxide, sulphur and water from the natural gas, resulting in LNG which is almost pure methane. Once it reaches its destination, LNG is stored in its liquid form until it is warmed back to natural gas via the process of regasification.

Overview LNG facility Tanzania

Tanzania's natural gas deposits have attracted the attention of a number of major energy companies such as Statoil, BG, Ophir Energy, ExxonMobil and Pavillion Energy which are collaborating with the Tanzania government over constructing an LNG plant. As announced by Statoil the LNG plant will start-up at the earliest in 2021 or 2022 and investments could be from US\$ 20 billion to US\$ 30 billion. The plant will receive and treat reservoir gas from the fields in blocks 1, 2, 3 and 4.789

Location

The Government of Tanzania favours an onshore liquefied natural gas plant, as opposed to an offshore plant currently being planned by investors in neighbouring Mozambique.

However, the government has not announced where the plant will be constructed, despite the oil and gas companies submitting a proposal for the location in mid-2013.

According to Mark Todd, BGs External Communications Manger, BG and Statoil had sent a joint proposal on the suitable site for the plant and are awaiting feedback from the Tanzania government.

^{785 &}quot;Focus on LNG" "NaturalGas.org" retrieved 08 November 2014.

^{786 &}quot;Overview-About LNG" Center for Liquified Natural Gas, retrieved 08 November 2014.

^{787 &}quot;Dodoma's slow approach could limit the Tanzania LNG's success" Interfax, 20 October 2014.

^{788 &}quot;Statoil, BG to Build Tanzania LNG Plant in Lindi, Minister says" "Bloomberg", 14 February 2014.

^{789 &}quot;Lindi to host \$30b LNG plant, but land issues may provoke protests" The East African, 29 March 2014.

Statoil and BG prefer the LNG plant to be located at Likong'o-Mchinga in the southern town of Lindi. However, the decision to build the plant in Lindi might foment resentments among people in Mtwara as the government had promised Mtwara residents in June 2013 that the plant would be built in their area to foster economic growth.

According to some sources, the LNG decision is shrouded in secrecy because of concerns people would begin buying up land around the site to sell on to the developers at an inflated price.

LNG Market

In all likelihood, Asia will be the main market for LNG from Tanzania. Geographically, Tanzania is ideally placed to supply LNG to the Asian market that heavily relies on LNG imports. Asia's fast growing economies will be the main drivers of growth in global gas demand in the next decade, according to global management firm McKinsey. Forecasts from the US Energy Information Administration (EIA) suggest that demand in Asian countries that are not part of the OECD will grow by 4.5 percent between 2010 and 2035. The countries, which include China, India and Indonesia, would see demand rise from 350 billion cubic metres per year in 2012 to 870 billion cubic metres per year in 2030, accounting for more than a third of gas demand in that period. Place is in the period.

Competition

However, Tanzania faces competition from Mozambique to be the first to export gas from East Africa. Tanzania will also have to compete with Qatar and Australia, the current biggest LNG exporters. According to analysts, LNG from Tanzania will be cheaper than LNG from Australia, but such an advantage might be annihilated if Tanzania is unable to develop its potential before a glut of other new supplies depresses prices. Furthermore, a paper for Columbia University's Center on Global Energy Policy found that US natural gas exports would dim East Africa's prospects in the global LNG market. The US witnesses a strong growth in natural gas output due to the fracking revolution. 793

^{790 &}quot;East Africa must avoid LNG delays to compete with rivals" The Barrel, 18 July 2014.

^{791 &}quot;Whither Africa's LNG projects amid looming glut?" Business Day, 03 September 2014.

^{792 &}quot;Mozambique, Tanzania faces LNG competition, and their own delays" Arctigas, 21 July 2014.

^{793 &}quot;East Africa May Lose Before It Even Enters Energy Game" "Foreign Policy" 15 October 2014.

Policy challenges

The ongoing uncertainty about the Tanzania constitution is likely to delay the LNG project. Without clarity on new regulations for the natural gas sector, international companies are likely to delay final investment decisions, according to different analysts. ⁷⁹⁴ Critics state that the current uncertainty is forcing interest groups to take a stand on all the most divisive political issues concerning the country's hydrocarbon resources at once. In this climate, introducing new terms to govern the natural gas sector will be politically difficult, hence making the enactment of a new bill unlikely in 2014. ⁷⁹⁵ However, in August 2015, President Kikwete ascended the three bills into laws: the Oil and Gas Revenues Management Act 2015, the Petroleum Act 2015 and the Tanzania Extractive Industries (Transparency and Accountability) Act 2015. ⁷⁹⁶

8.4 Mtwara Port

The Tanzania Ports Authority (TPA)

The Tanzania Ports Authority (TPA) is a parastatal organisation under the Ministry of Infrastructure Development, whose responsibility is "to manage and operate" Tanzania's sea and lake ports. Established on 15th April 2005, the TPA presently owns Dar es Salaam, Tanga and Mtwara ports as well as all lake ports in Tanzania. A member of the Port Management Association of Eastern and Southern Africa, the TPA is headquartered in Dar es Salaam.⁷⁹⁷

Mtwara Port History

The Mtwara deep water port was built between 1948 and 1954 as part of the Tanganyika groundnut scheme. The development of the port was accompanied by the construction of a railway from Mtwara to Nachingwea for conveying imported heavy equipment

^{794 &}quot;Mozambique, Tanzania faces LNG competition, and their own delays" "Arctigas" 21 July 2014.

^{795 &}quot;Fast Growing Tanzania Looks To Begin LNG Production By 2020" "Oilprice.com" 30 April 2014.

^{796 &}quot;Kikwete ceremoniously signs petroleum bills" "Oilprice.com", retrieved 5th September 2015.

^{797 &}quot;About us" "Tanzania Ports Authority" retrieved 22 November 2014.

^{798 &}quot;Mtwara Port" "Tanzania Ports Authority" retrieved 22 November 2014.

and groundnuts for export.⁷⁹⁹ The port, variously dubbed as the "Cinderella" and Peanut" port was equipped with a 1,248 feet deep water quay with 32 feet alongside depths to handle the projected large tonnages. However, the collapse of the Tanganyika groundnut scheme left the port with a substantial surplus capacity.⁸⁰⁰

Recent developments

Due to the recent major off-shore natural gas findings in Southern Tanzania, the Mtwara Port has become strategic for international oil and gas companies operating in the area as they use the port as a supply base for their drilling ships. ⁸⁰¹ Over the past six years, Mtwara port has registered a 23.9 percent increase in cargo annually. Indeed, total cargo increased from 204,429 tonnes in 2012/2013 to 356,000 tonnes in 2013/2014. Data from the port authority shows that 544 calls (vessels) mainly from China, Europe and Kenya arrived at the port last year, of which 459 were oil and gas cargo. ⁸⁰²

Port Upgrade

In 2013, the Tanzanian government announced that it would invest US\$ 214 million in upgrading and expanding the harbour to international standards after signing an agreement with the Japanese government to conduct a preliminary survey. According to the port manager, this decision was made as a result of the gas drilling activities. The project will comprise the expansion and the improvement of infrastructure and working equipment such as cranes and tractors. Tsh2.95 billion (US\$ 1.7 million) will be spent on improving the port's infrastructure. Have a port currently has the capacity to handle 400,000 metric tonnes of imports and exports per annum; it is mainly designed to handle conventional cargo. This capacity is planned to

^{799 &}quot;Forestry Unbound" "Wielding the Ax: State Forestry and Social Conflict in Tanzania, 1820- 2000/ Thaddeus Sunseri", 2009.

^{800 &}quot;Regional Geography of East Africa" "Patterns of Regional Geography: World Regions/ Ram Bahadur Mandal" 1990.

^{801 &}quot;Mtwara port set for major upgrade" The East African, retrieved 22 November 2014.

⁸⁰² "Mtwara port set for major upgrade" The East African, retrieved 22 November 2014.

⁸⁰³ "Mtwara port set for major upgrade" The East African, retrieved 22 November 2014.

^{804 &}quot;Mtwara port set for major upgrade" The East African, retrieved 22 November 2014.

be expanded to about 28 million tonnes of traffic annually.⁸⁰⁵ TPA has acquired 263 hectares for the expansion. Consequently, the capacity of the port will increase to berth seven ships from the current four. Moreover, 100 hectares have been acquired to construct a free port zone and some 400 hectares have been earmarked for oil and gas processing activities.⁸⁰⁶ Several companies placed their bids to implement the project but the final selection is still pending.⁸⁰⁷

8.5 Mtwara Power Plant

In February 2013, the Tanzania Electric Supply Company Limited (TANESCO) signed a Public Private Partnership (PPP) with Symbion Power to build a 600 MW power plant in Mtwara: In the same year of 2013, General Electric International (GE), a technology company, joined the project to facilitate and speed up the execution of the same. The project requires US \$1 billion capital expenditure and will also cover the construction of a 650 kilometre power line from Mtwara to Songea to extend the existing national grid from Makambako in Njombe Region to Songea.

The power plant is planned to supply 30 MW to the Dangote Cement factory and 20 MW to the Mtwara Fertiliser Plant. Moreover, the Mtwara Airport needs 6 MW and the uranium mine in Namtumbo in Ruvuma Region requires 30 MW.⁸¹¹ Another expected buyer of energy from the Mtwara power plant is the urea plant of the UK listed Wentsworth Resources Company.⁸¹²

 $^{805\ {\}rm ''Mtwara}$ port set for major upgrade'' The East African, retrieved $22\ {\rm November}\ 2014$.

⁸⁰⁶ "Mtwara port set for major upgrade" The East African, retrieved 22 November 2014 .

 $^{807\ {\}rm ''Mtwara}$ port set for major upgrade" The East African, retrieved $22\ {\rm November}\ 2014$.

^{808 &}quot;Tanzania to monetize gas with power plant and downstream industries", "2b1 Consulting" retrieved 01 December 2014.

^{809 &}quot;Symbion embarks on independent 600MW power project in Tanzania", East African Business Week, retrieved 01 December 2014.

^{810 &}quot;Tanzania to monetize gas with power plant and downstream industries", "2b1 Consulting" retrieved 01 December 2014.

^{811 &}quot;Symbion Power Mtwara Power Project" "All Africa" retrieved 01 December 2014.

^{812 &}quot;Tanzania to monetize gas with power plant and downstream industries" "2b1 Consulting" retrieved 01 December 2014.

In addition, TANESCO has received requests for power supply from Mozambique for its northern regions. 813 Commercial operation of the plant is planned to start in $2017.^{814}$

8.6 Mtwara-Dar es Salaam Gas Pipeline

Background

In July 2012, the Tanzanian Government officially launched the construction of a 532 km long Mnazi Bay to Dar es Salaam natural gas pipeline project.815 816 The project involves the construction of a 24-36 inch diameter pipeline from Mnazi Bay in Mtwara, connected to Somanga Funga with an existing spur line from SongoSongo gas field in Lindi region, and then onto Kinyerezi in Dar es Salaam. A 24-inch pipeline is being constructed from Mnazi Bay to Somanga whereas the existing 16-inch pipeline between Somanga and Dar es Salaam is being expanded to 36 inches. It will have a capacity to convey 210 million cubic feet of gas a day (MMCFD), up from the current 105 MMCFD. The existing 16-inch natural gas pipeline from SongoSongo to Dar es Salaam, which is owned by a private investor— SONGAS Limited—has been facing capacity constraints amidst a soaring demand for gas and energy in Dar es Salaam.817 818 The pipeline project also includes the construction of natural gas processing plants at Madimba in Mtwara and SongoSongo Island in Lindi. Two power plants at Kinyerezi I and Kinyerezi II with power generation capacities of 150MW and 240MW, respectively, weill be fired by natural gas.819 820

^{813 &}quot;Tanesco and Symbion ink pact to build Mtwara power plant" African Review, retrieved 01 December 2014.

^{814 &}quot;Tanzania to monetize gas with power plant and downstream industries" "2b1 Consulting", retrieved 01 December 2014.

^{815 &}quot;Tanzanian pipeline construction inaugurated" "Pipelines International" retrieved 05 February 2015.

^{816 &}quot;Tanzania: Work Starts on Mnazi Bay to Dar es Salaam Gas Pipeline" "LNG World News" retrieved 04 February 2015.

^{817 &}quot;\$1.2b project to end Tanzania power rationing" "The East African" retrieved 04 February 2015.

^{818 &}quot;Tanzanian pipeline construction inaugurated" "Pipelines International" retrieved 05 February 2015.

^{819 &}quot;Tanzania: Gas Pipeline Commissioning 2014" "All Africa" retrieved 04 February 2015.

^{820 &}quot;Mtwara- Dar project at advanced stage" "IPP Media" retrieved 05 February 2015.

Energy Demand in Tanzania

On completion, the Mtwara-Dar es Salaam pipeline will have a capacity to transport 784 MMCFD of gas to be used in the production of 3,920 MW of electricity. The current installed power capacity produced at the two power plants is 1,509.85MW. Tanzania's current electricity demand is 720 MW per day.⁸²¹ Gas production at the SongoSongo field is about 100 MMCFD which is transported via pipeline to Dar es Salaam to generate 320 MW of power and to supply to 37 industrial entities. Mnazi Bay, on its part, produces only 2 MMCFD of gas that is used to generate 10 MW of electricity which is consumed in Mtwara.⁸²² The project will also allow the supply of natural gas to large-scale and industrial electricity users in addition to major population centres in Tanzania. The natural gas project is expected to help the country meet all its power needs. Currently, the country has unconstrained peak demands of up to 1,000MW with a growth demand of 10-15% per annum.⁸²³

Madimba and SongoSongo Gas plants

One of the natural gas processing plants is being constructed at Madimba in Mtwara by China Petroleum Engineers, the China Chemical Engineering Secondary Construction Corporation and Worley Parson. 824 The other gas plant was constructed on Songo Songo Island and is owned by SONGAS Ltd; a local joint venture company formed by CDC Globeleq, TANESCO, TPDC and TDFL. 825 826

Construction Agreement between China and Tanzania

In September 2012, the Ministry of Finance on behalf of Government of Tanzania and Exim Bank of China signed a US\$ 1.225 billion concessional loan agreement with a 33 year maturity at 2% interest

^{821 &}quot;Tanzania" "Ask Advocates" retrieved 06 February 2015.

^{822 &}quot;Macroeconomic Policy Framework For The Five Year Development Plan/ Budget 2014/15-2017/18" "Ministry of Finance" retrieved 05 February 2015.

^{823 &}quot;Current Status of the Energy Sector in Tanzania" "USEA" retrieved 05 February 2015.

^{824 &}quot;Off-shore gas raises Mtwara prospects" "Business Week" retrieved 28 December 2014.

^{825 &}quot;SongoSongo Gas Development and Power-Generation Project, Tanzania" "Offshore-Technology" retrieved 05 January 2015.

^{826 &}quot;SongoSongo Gas-to-Electricity Project" "TPDC" retrieved 05 February 2015.

rate to finance the construction of a natural gas pipeline linking Msimbati and Mnazi Bay gas fields to Dar es Salaam. The implementing organisations are China Petroleum Technology and Development Corporation (CPTDC) and China Petroleum Pipeline Engineering Corporation (CPPEC).827

Mtwara gas protests of 2012

Towards the end of 2012 and in the first half of 2013, Mtwara witnessed violent clashes between protesting residents and security forces as a result of plans by the government to construct the gas pipeline from the Southern Tanzania gas fields of Mnazi Bay and Msimbati to Dar es Salaam. Demonstrators demanded to see local benefits from the natural resource found in the region as earlier plans were to pipe only 16 percent of the natural gas to Dar es Salaam. Security forces have so far regained control and the construction of the pipeline is in its final stages.

Economic impacts associated with the gas pipeline

The construction of the gas pipeline is an important driver of economic activities in the region and beyond. The industry's activities generate and sustain jobs, income and output as well as contribute to state and local government revenues. ⁸²⁸ Natural gas is used to heat water with the resultant steam used to generate thermal power. It is estimated that costs per unit of thermal power generated from gas powered plants is Tsh 65 (5.5 US cents) in comparison with Tsh 96 (12 US cents) the country incurs to generate power from other sources. This lower cost will reduce power costs and the country's over-reliance on unreliable and expensive hydro and oil power generating sources. Consequently, the government will save close to US\$ 1 billion annually in heavy oil for electricity generation. ⁸²⁹ 830 From January 2013, the Tanzanian Government reduced the cost and issued new charges for service line within 30 metres and with one pole: For rural areas, the electricity connection fee dropped by about 60 percent and

^{827 &}quot;Tracking Chinese Development Finance-AidData" "Aiddata" retrieved 05 February 2015.

^{828 &}quot;Economic Impacts of the Oil and Natural Gas Industry on the US Economy in 2011" "PWC" retrieved 05 February 2015.

^{829 &}quot;Mtwara gas Project still on Course" "The East African" retrieved 05 February 2015.

^{830 &}quot;Tanzania pipeline to save \$1bn" "Business Week" retrieved 05 February 2015.

75 percent whereas for urban areas the connection fee dropped by about 29 percent and 60 percent. Special attention given to dwellers in Southern regions of Lindi and Mtwara will see them pay US\$ 62 for both single-phase and three-phases which is likely to spur growth of small businesses within the regions. The project will help Tanzania fulfill some of the goals that are stipulated in the Tanzania Development Vision 2025. These include the availability of a reliable electric power supply, expansion and increase of the industrial spectrum, cleaner environment, employment creation, extended natural gas usage, availability of clean water and the use of petrochemicals in Tanzania's industries.831 832 According to the TPDC, the project is in the final stages of construction and what is left is the testing stage that would be carried out between January and June 2015. On completion, the project will enhance the sustainability of electricity generation and, hence, improve the national economy. The outcome of the work will provide a basis for concluding an immediate Gas Sales Agreement to supply to consumers and for future development of the Mnazi Bay and Msimbati gas fields.833 834

^{831 &}quot;TPDC: Mtwara Gas Pipeline Ready by February" "Expogroup" retrieved 05 February 2015.

^{832 &}quot;SongoSongo Gas-to-Electricity Project" "TPDC" retrieved 05 February 2015.

^{833 &}quot;Mtwara-Dar gas project at advanced stage" "IPP Media" retrieved 05 February 2015.

^{834 &}quot;Key Performance Indicators for 2014/15" "TPDC" retrieved 05 February 2015.

9. Resource Transparency Opportunities

9.1 Revenue Transparency in the Extractive Industries in Tanzania

The oil, gas and mining sectors can generate huge revenues for companies involved and host governments. However, experience from different countries suggests that countries that are more dependent on revenues obtained from natural resources tend to grow with a lesser speed than countries that are resource poor. Moreover, the countries that are more dependent on such resources tend to suffer from corruption, weak accountability and weak institutions. ⁸³⁵ In the literature, this phenomenon is summed up under the concept of the "resource curse". There is a growing recognition among researchers, governments and civil society activists that one part of the solution to the resource curse and its associated problems lies in fostering transparent and accountable management of natural resource revenues to ensure that natural resource wealth is translated into economic growth and development. ⁸³⁶

Revenue Transparency in Tanzania

A lack of transparency has been the norm in Tanzania's extractive industries⁸³⁷ and the Tanzanian public has for a long time been discontented with the prevalent opacity, mediocrity and impunity, prompting perception of corruption as senior government officials regulated mineral and gas resources in the country. In February 2009, the Tanzanian Government took a significant step toward enhancing transparency by deciding to join the Extractive Industries Transparency Initiative (EITI). Before then, mining companies were the only source of information and there was nobody to ascertain the veracity of the information.⁸³⁸ However, even today, the public

^{835 &}quot;Promoting Revenue Transparency Index" "Natural Resource Governance Institute" retrieved 06 January 2015.

^{836 &}quot;Promoting Revenue Transparency Index" "Natural Resource Governance Institute" retrieved 06 January 2015.

^{837 &}quot;Tanzania Transparency Snapshot" "Natural Resource Governance Institute" retrieved 06 January 2015.

^{838 &}quot;Kikwete: There is more transparency in mineral sector" "Tanzania Minerals Audit Agency" retrieved 06 January 2015.

believes corruption and rent-seeking had significantly influenced the government to entering secretly into Mining Development Agreements (MDAs) and Gas Production Sharing Agreements (PSAs) with extractive companies.⁸³⁹

Tanzania Extractive Industries Transparency Initiative (TEITI)

The Extractive Industries Transparency Initiative (EITI) is a global coalition of governments, companies and civil society organisations working together to improve openness and accountable management of revenues from natural resources.⁸⁴⁰

Tanzania joined EITI in February 2009. Today, Tanzania is a full member of EITI, one of only 21 countries that the EITI Board has declared in full compliance with EITI Standards, meaning that the country has an effective process for annual disclosure and reconciliation of all revenues from its extractive sector. To-date, four annual EITI reports have been published. They cover the period from 1 July 2008 to 30 June 2012.841

Open Government Partnership

The Open Government Partnership (OGP) is an initiative aimed at enhancing government performance in providing up-to-date official data to the public. Launched in 2011, the OGP provides an international platform for domestic reformers committed to making their governments more open, accountable and responsive to citizens. Representational plane of the OGP in 2011 and has to-date prepared two action plans to enhance its commitment to global initiatives. Representational plane of the OGP covers the July 2014 to June 2016 period. It consists of commitments in five key areas:

1. Freedom of Information

2. Open Data

^{839 &}quot;EITI Myths and Reality: The Case of Tanzania" "ecdpm" retrieved 06 January 2015.

^{840 &}quot;What is the EITI?" "EITI", retrieved 06 January 2015.

^{841 &}quot;TEITI- Reconciliation 2011- 2012, Final report" "TEITI" retrieved 06 January 2015.

^{842 &}quot;What is the Open Government Partnership?" "Open Government Partnership" retrieved 06 January 2015.

^{843 &}quot;Country Profile Tanzania" "Transparency International" retrieved 06 January 2015.

- 3. Budget Transparency
- 4. Land Transparency
- 5. Extractive Industries Transparency

Although the country's commitment to enacting a Freedom to Information Act by December 2014 attracted major media attention nothing tangible has materialised out of this commitment thus far.⁸⁴⁴

Transparency International in Tanzania

Transparency International (TI) is a global civil society organisation fighting corruption. The Tanzania Chapter of TI was formed in May 2009. The Tanzania Chapter of TI was formed in May 2009. The Since then, TI has published different surveys on the state of corruption in the country. According to TI's 2013 Global Corruption Barometer, Tanzania is one of the 14 most corrupt countries in the world. About 56 percent of the survey's respondents admitted to having given a bribe to one or more government and non-government institutions, including political parties, religious organisations and the media. The survey of the survey

Publish What You Pay in Tanzania

Publish What You Pay (PWYP) is a global network of civil society organisations calling for an open and accountable extractive sector. State The National Coalition of PWYP - Tanzania was established in 2010. PWYP - Tanzania is a resource transparency campaign focusing on oil, gas, minerals, forestry and fisheries. State Currently, the PWYP - Tanzania coalition is being revamped. The process is due to be completed by the summer of 2015.

^{844 &}quot;Tanzania's second Open Government Partnership (OGP) Action Plan published" "Twaweza" retrieved 06 January 2015.

^{845 &}quot;Home" "Transparency International" retrieved 06 January 2015.

^{846 &}quot;Tanzania: The facts" "Soko - Tanzania", retrieved 06 January 2015.

^{847 &}quot;Tanzania among 14 most corrupt countries - report" The Citizen, retrieved 06 January 2015.

^{848 &}quot;About us" "Publish What You Pay" retrieved 06 January 2015.

^{849 &}quot;Tanzania: Publish What You Pay Coalition and Campaign" "Africa Files" retrieved 06 January 2015.

^{850 &}quot;Coalitions - Tanzania" "Publish What You Pay" retrieved 06 January 2015.

9.2 Research in Oil and Gas in Tanzania

Although gas is currently being produced only on small-scale in Tanzania and major gas findings have only been discovered recently and are not being exploited yet, there is already a growing body of literature—though not exhaustive—on Tanzania's gas sector and related issues. Below is an overview on the existing literature.

Regulatory Framework

Boma Kulthum's (2013) paper "The natural gas sector in Tanzania: Suggestions for a better framework to benefit the country" discusses the history of Tanzania's natural gas sector in brief, the legal instruments governing the right and obligations of both the investors and the government, namely the production-sharing agreements (PSAs) and the licensing regime. The author criticizes the current regime for failing to fully safeguard the interests of the host government by giving the investor an added advantage over the resources belonging to the country.

The author proposes the usage of the service contract regime in some of the natural gas contracts in addition to suggesting factors that ought to be considered during natural gas contract negotiations to forestall inadequacies found in the current regime.

The discussion paper "Challenges ahead for Tanzania to build new capacities for gas industry development" by the former Regional Commissioner for Mtwara, Joseph Simbakalia (2013), examines the preparedness of Tanzania in handling the new gas economy. The author observes that getting ready for the new gas regime entails preparing and implementing an action plan which will systematically create an enabling policy and regulatory environment, as well as supply the requisite physical infrastructure and human resources.

Political, Social and Environmental Impacts

"Great Expectations: Citizens' views about the gas sector" 2015 is a study by Twaweza East Africa. The data for this study comes from the same source as the 2014 study "Managing natural resources: What do citizens say?": the Sauti za Wananachi phone survey.

The key findings are:

1. Most Tanzanians feel uninformed about the gas discoveries and would like to receive more information;

- 2. More than 50% of the participants believe that the country is already receiving gas revenues, one in six participants expects to find a job in the gas sector and the average expected revenue per person from the gas findings is almost TZS 7,5000,000 (this is about three times larger than the most optimistic professional projections);
- 3. The majority of Tanzanians is optimistic that the gas findings will improve their lives. However corruption is a major concern and participants worry that government employees will benefit most from the gas revenues.

"Managing natural resources: What do citizens say?" is a study jointly conducted by Twaweza and the World Bank (2014). Deploying a mobile phone survey, they collected data from 1,562 Tanzanian households to better understand the citizens' expectations, hopes and concerns with regard to the gas discoveries. The findings of the study are as follows:

- 64 percent of Tanzanian citizens have heard about the discoveries of natural gas, but almost the same number wish to be provided with more information;
- 2. Most people are optimistic about the prospects of natural gas;
- 3. 38 percent of Tanzanians want a substantial proportion of the revenues to be given directly to citizens in cash whereas 43 percent believe the revenues should be used by the government to develop social services such as education, health and security;
- 4. 26 percent expect that government officials will benefit the most from resource revenues and an additional 11 percent believe that the benefits will go predominately to rich people.

The IMF report "United Republic of Tanzania: Selected Issues" (2014) discusses the fiscal implications of the offshore natural gas for Tanzania. It moreover analyses the existing fiscal regime for natural gas in Tanzania. The report notes that, once infrastructure is in place and production is underway, annual revenue collections for the Tanzania Government could range between US \$3 billion and \$6 billion.

A study entitled "Natural gas conflict in Tanzania and the impacts to the population of Mtwara municipality" by Marcelin Raphael Ndimbwa (2014) explores the problem of natural gas conflict and its impact on the Tanzanian society using Mtwara Municipality as a case study. The study findings shows that the conflict over natural gas resulted from unfulfilled promises by the government, gas transfer from Mtwara to Dar es Salaam, an inconsiderate and exclusive political agenda and lack of information and education on the natural gas project.

Humphrey Moshi's (2013) paper "Opportunities and challenges for the extraction of natural gas in Tanzania: The imperative of adequate preparedness" identifies areas which need adequate preparation to ensure that the extraction of natural gas becomes the main driver for inclusive and sustainable growth and development in Tanzania. The article notes that preparedness package includes an appropriate fiscal regime to capture rent, the availability and development of human resources, investments in the domestic economy and transparent and consultative contract negotiations.

"We'd rather be exploited than ignored. Is nostalgia for the colonial groundnut scheme reflected in contemporary perceptions of natural gas extraction in southern Tanzania?" by Robert Ahearne (2013) argues that the groundnut scheme had a significant impact on the perceptions of development held by older people in the coastal areas. It compares this historical understanding of development with the arrival of multinational gas companies. The paper seeks to address the extent to which nostalgia for past interventions, now understood as development, is reflected in contemporary perceptions of outsiders exploiting natural gas deposits.

Oil and gas fields

The "Feasibility study of the Songo Songo gas field capacity increasing in terms of wells heads pressures behaving trend" by Morice Richard (2014) analyses whether it is feasible to increase gas capacity in the SongoSongo gas field from 101 MMsctf/d to 200 MMsctf/d as planned.

Ghati Mwita's (2014) paper "Field Development Evaluation Study using Integrated Modelling: Case Study: Mnazi Bay Gas Field in Tanzania" determines the field development plan for the Mnazi Bay gas field. The analysis shows that the best field development plan is sensitive to separator pressure, the type of well completion, the size of production tubing, the perforation spacing interval, gas price and discount rates.

Resource Transparency

Razack Lokina and Anthony Leiman's (2014) paper "Managing natural resources for sustainable growth and human development in Tanzania-the case of extractive industry" recommends the Government of Tanzania to maintain a flexible exchange rate policy, save abnormal inflows and sterilise them, identify the abnormal flows by using a simple and transparent rule based on long-term projections and save and sterilise abnormal inflows when mineral markets boom.

In their paper "Hydrocarbon resources in Tanzania: Achieving benefits with robust protection", Sufian H. Bukurura and Donald E. Mmari (2014) discuss the measures Tanzania should take to safeguard its national interest and maximise long-term benefits from its natural gas resources for the common good. They recommend robust public scrutiny of investments and investors at the national as well as the international levels and direct local participation in upstream activities mainly through exploration and production.

"Tanzania and the quest for sustainable utilisation of oil and natural gas" is a research paper by Ian Shanghvi and John A.K. Jingu (2013) that recommends what it sees as best management practices for the Tanzania Government and other stakeholders to transform the gas resources into a factor of stability in socio-economic and geo-political terms. These recommended best practices include increased state participation in the sector, transparency and accountability, capacity-building to improve negotiation powers and a fair distribution of natural gas revenues.

Employment and Local Content

"Human resource development in Tanzania: Reflections on its role and challenges in the gas and oil sector" is a paper by F.J. Mateng'e (2014) that argues that unless a comprehensive and gestalt national human resource development system is adopted, capacity-building interventions will remain reactive, fragmented and unlikely to produce meaningful long-term benefits.

The NORAD's (2013) study "Mapping and analysis of the needs for petroleum related education in Tanzania" systematises the needs required for petroleum-related education at a detailed skills level, indicating gaps in demand and supply. The study finds that several initiatives for petroleum-related education are already in place.

It moreover maps and analyses gaps at the professional and technical level and gives recommendations on the types of education needed to overcome these gaps.

In his report "Local Content Policy in the Petroleum Sector in Tanzania: Core Issues, Expenditure Categories and Road Map", Michael Warner (2013) identifies principles and issues relevant for the formulation of a Local Content policy for the petroleum sector in Tanzania.

The paper "Making natural gas guarantee sustainable development: Plans and progress by VETA to prepare Tanzanians to engage in the natural gas value chain process" by Enock Kibendela (2013) looks at the skills requirements for developing Tanzania's gas industry and discusses the preparedness of VETA [the Vocational Education and Training Authority] to support the development of the gas industry in Tanzania.

Regional Overview

"Harnessing African Natural Gas: A New Opportunity for Africa's Energy Agenda?" by David Santley, Robert Schlotterer and Anton Eberhard (2014) examines the economic conditions facing policy-makers, planners, and commercial actors with a stake in gasto-power development in Sub-Saharan Africa. It examines the upstream, midstream, and downstream segments of the gas value chain to identify where the economics align in favour of gas-to-power development and where they do not.

The paper "Potential for regional use of East Africa's natural gas" by Jonathan Demierre, Morgan Bazilian, Jonathan Carbajal, Shaky Sherpa and Vijai Modi (2014) provides a preliminary analysis of the economic viability of a new regional gas pipeline network in East Africa considering the potential future demand for natural gas Zongying Zhou, Ye Tao, Shujun Li and Wenlong Ding's (2013) research paper "Hydrocarbon potential in the key basins in the East Coast of Africa" analyses the evolution and sedimentary filling characteristic of regional structures in the sedimentary basins in the east coast of Africa and discusses the different geological conditions of hydrocarbon accumulations and their exploration potential.

Anthony Ross's (2012) report "China's role in the East African oil and gas sector: A new model of engagement" analyses Chinese

engagements in the oil and gas sector in East Africa and Chinese-Euro-American ventures in the region. It discusses the role of China and its partners' financial stakes in infrastructure projects and future implications with regard to security and national sovereignty within the region.

The report "Natural Gas in East Africa" by Maris Berg, Marit Agasøster and Erling Grammeltvedt (2012) provides an overview of the oil and gas sector developments in Tanzania, Mozambique, Kenya and Madagascar. It discusses the state of explorations, reserves, the local markets and export potentials in these countries.

9.3 Transparency of Contracts

The drawing up of contracts is necessary in the extractive industries in order to give precise detail and legal specificity to the obligations of a state and company or consortium of companies involved in a project. Many contracts establish important tax, environment and investment provisions with major implications for a producing country.⁸⁵¹

The 2009 "Contracts Confidential" report from Revenue Watch Institute notes that in recent years there has been a growing movement calling for greater contract transparency, within and beyond the extractive sector. International jurisprudence on the right to information, which increasingly supports the disclosure of agreements, as well as domestic freedom of information (FOI) laws across the world, are trends which offer important tools of argument and procedure in breaking the barrier to disclosure while balancing other legitimate interests.⁸⁵²

Benefits

According to Ingilab Ahmadov of the Public Finance Monitoring Center in Azerbaijan, it is widely known that a transparent "company-state" relationship is a key factor for resource-rich countries seeking efficient management of their natural resources to benefit current and future generations. He argues that contract transparency is necessary because an outside observer who wishes to compare similar contracts across or within countries needs a way to determine

^{851 &}quot;Contracts Confidential: Ending Secret Deals in the Extractives Industries" Revenue Watch 2009.

^{852 &}quot;Contracts Confidential: Ending Secret Deals in the Extractives Industries" Revenue Watch Institute 2009.

the extent to which it takes society's interests into account. To judge the fairness of these contracts, one must first have access to them.⁸⁵³

Proponents of contract transparency argue that the publishing and scrutiny of contracts allows the government to be held accountable for all contracts they enter. In their report on the issue, Revenue Watch argue that "contract transparency is critical to addressing better resource management and bringing contract stability to an industry that sees its contracts renegotiated more than any other."

Opposition and counter-arguments

One of the most commonly aired arguments against transparency of contracts is that this openness impairs a company's commercial interests and weakens its competitive position. Confidentiality clauses are a common and legitimate feature in contracts between private parties and are used to prevent information from coming into the hands of public groups.⁸⁵⁵

This assertion is contradicted by proponents of transparency such as Ingilab Ahmadov, who argues that industry specialists in any case are aware of all or almost all contracts. Given the high level of information technology and close cooperation on joint projects in today's oil industry, it is unrealistic to maintain "trade secrets" as they existed in the 1980s and 1990s. According to Ahmadov, practice has shown that the commercial interests of parties involved in oil and gas contracts do not suffer negatively from the exposure, but on the contrary are able to benefit from a badly needed enhancement of their public image.⁸⁵⁶

Susan Maples, in her report for Revenue Watch Institute, suggests that one reason why companies are not eager to embrace contract transparency is that the information asymmetry between different parties resulting from secrecy arrangements allows certain companies an advantage, enabling them to negotiate more favourable commercial deals. Maples admits that the arguments in support of contract secrecy are not negligible arguments, but they overlook

^{853 &}quot;Why is oil contract transparency necessary?" Public Finance Monitoring Centre, retrieved 15 March 2012.

^{854 &}quot;Contracts Confidential: Ending Secret Deals in the Extractives Industries" Revenue Watch, 2009.

^{855 &}quot;Contracts Confidential: Ending Secret Deals in the Extractives Industries" Revenue Watch Institute, 2009.

^{856 &}quot;Why is oil contract transparency necessary?" Public Finance Monitoring Centre, retrieved 15 March 2012.

the special obligations of governments and the democratic right to information.⁹⁵⁷

The EITI and Contract Transparency

As of 2011, the Extractive Industries Transparency Initiative (EITI) did not make demands on participating countries regarding contract transparency. There have been calls from transparency activists for the initiative to widen its remit to include contract transparency.⁸⁵⁸ However EITI representatives argue that it is important that the EITI retains precisely this tight focus in order to foster wider change and provoke debate on broader governance issues.⁸⁵⁹

9.4 Transparency of Oil and Gas Contracts in Tanzania

Background

Transparency can help improve the quality of government contracting. It lowers barriers to entry for firms to bid and provide those bidders with greater assurance that the process will be fair. Governments benefit from increased competition and learn from similar contract models from other jurisdictions. Civil society can also use contract information to ensure that the delivery of services or the supply of revenue is in accordance with the agreement.⁸⁶⁰

Tanzania's Perspective

In November 2008, the Tanzania government took a significant step toward enhancing transparency by deciding to join the Extractive Industries Transparency Initiative (EITI).⁸⁶¹ There are concerns that the country's inexperience in the gas sector has allowed investors to

^{857 &}quot;Contracts Confidential: Ending Secret Deals in the Extractives Industries" Revenue Watch Institute, 2009.

^{858 &}quot;What needs to change for the EITI remains relevant? "Publish What You Pay Africa, October 2011.

^{859 &}quot;What needs to change for the EITI remains relevant?" EITI, 2 October 2009.

^{860 &}quot;Government Contracts Tanzania" "Al Jazeera" retrieved on 27th December 2014.

^{861 &}quot;Tanzania Transparency Snapshot" "Natural Resource Governance Institute" retrieved on 27th December 2014.

secure overly generous contract terms.⁸⁶² As a result, civil society groups are pressing for open contracts in the extractive industry as a means of heightening government accountability over natural resource wealth and to promote more public discussions over how revenues are invested.⁸⁶³

Transparency of contracts is fundamental in ensuring proper management of natural resources. As "Without transparency, no accountability," the intention is to make all the contracts known to the people and not just the Parliament. After all, gas wealth belongs to the people of Tanzania and the people have the right to know the contents of the contracts entered into by the government on their behalf.⁸⁶⁴

In 2014, a leaked contract between Norway's Statoil and the Tanzania Petroleum Development Corporation (TPDC) covering an agreement to share natural gas production suggests that more generous terms were given to the company than had been signalled by the "model agreements" previously made public.

The leak created considerable public discussion and outcry in the country despite outside experts cautioning that the deal may not be out of line with international precedents. Because most of those precedent agreements remain confidential, it is difficult for the Tanzanian civil society to evaluate and validate that claim.⁸⁶⁵ ⁸⁶⁶

The Natural Resource Governance Institute (NRGI) endorsed recommendations from the Civil Society Extractive Industry Working Group's regarding the importance of transparency and accountability as a major objective of the petroleum policy, as well as the need for a formal consultative process of all stakeholders involved to cultivate a

^{862 &}quot;Tanzania energy officials arrested in gas contract fight" "Petroglobalnews" retrieved on 27th December 2014.

^{863 &}quot;Tanzanian CSOs have released a statement" "GOXI" retrieved on 27th December 2014.

^{864 &}quot;Tanzanian officials arrested for failure to publish details of natural gas contract with Statoil, BG Group and ExxonMobil" "Global Research" retrieved on 27th December 2014.

^{865 &}quot;Publishing Government Contracts addressing Concerns and easing Implementation" "Centre for Global Development" retrieved on 27th December 2014.

^{866 &}quot;Tanzanian officials arrested for failure to publish details of natural gas contract with Statoil, BG Group and ExxonMobil" "Global Research" retrieved on 27th December 2014.

critical mass of understanding and support from Tanzanian citizens. ⁸⁶⁷ ⁸⁶⁸ ⁸⁶⁹ Tanzania's case illustrates that even contracts negotiated with probity and efficiency can appear suspect if they are kept secret. In this regard, experts suggest that Tanzania's Production Sharing Agreements (PSAs) may not be out of line with similar deals from the rest of the world. But without access to the actual agreement, and because most of those agreements still remain confidential, it is difficult for the civil society, media or public to evaluate that claim. ⁸⁷⁰ Tanzania has not been publishing its natural resources' contracts it entered with foreign companies. In fact, the Parliamentary Accounts Committee (PAC) was denied access to the contracts by the Ministry of Energy and Minerals. ⁸⁷¹ ⁸⁷²

Legislative and Freedom of Information

Despite these developments, contracts signed in the extractive industries so far remain top secret. As a matter of fact, even the Freedom of Information Bill being drafted by the Parliament does not address this gap and may even reinforce the criminal nature of public disclosure of contracts.³⁷³

Currently, Tanzania does not have a freedom of information law, which would represent a key step toward meaningful transparency and accountability in the extractive industry. Not surprisingly, the civil society's advocacy for the right to information has been heavy. Also, legislative oversight is playing a growing role in Tanzanian governance; debate within Tanzania's Parliament has by all accounts increased lately, and in the meantime the Tanzania government has undertaken a review of mining contracts.⁸⁷⁴

^{867 &}quot;Tanzania Gas Contract Appears Reasonable, Though Questions Remain – Natural Resource Group Says" "All Africa" retrieved on 27th December 2014.

^{868 &}quot;NRGI supports CSO Extractive Industries Working Group position" "GOXI", retrieved on 27th December 2014.

^{869 &}quot;What leaked gas agreement means" "The Citizen" retrieved on 27th December 2014.

^{870 &}quot;Government Contracts Tanzania" "Al Jazeera" retrieved on 27th December 2014.

^{871 &}quot;Give us a break- Muhongo" "The Citizen" retrieved on 27th December 2014.

^{872 &}quot;Scandal in Tanzania: A little context and 3 lessons" "Oxfam" retrieved on 27th December 2014.

^{873 &}quot;Tanzania Transparency Snapshot" "Natural Resource Governance Institute" retrieved on 27th December 2014.

^{874 &}quot;Tanzania Transparency Snapshot" "Natural Resource Governance Institute" retrieved on 27th December 2014.

Proactively, the release of government contracts is now being adopted by a growing number of countries around the world and will undoubtedly improve the quality of contracting and promote trust in government. Therefore, the draft Freedom of Information Bill being prepared by government should mandate this proactive publication.⁸⁷⁵

Countries endowed with natural resources could be prosperous if they practised good governance, transparency in their dealings with mining, oil and gas companies, stronger disclosure, anti-corruption rules and economic policies that promote diversified economies to discourage dependence on resource rents. Under this setup, transnational companies could be compelled to play a more important role too by enforcing and strengthening the existing transparency rules 876

Taking the step from transparency to actual accountability requires a civil society with the skills and training for effective monitoring. In this regard, bilateral donors, the multilateral banks and the private sector should support programmes to educate citizens in auditing, accounting and tracking of revenues and expenditures. If citizens do not have these analytical and technical skills, then they are unlikely to hold public officials accountable for spending resource revenues badly or mismanaging them.⁸⁷⁷

9.5 Extractive Industries Transparency Initiative (EITI)

EITI Compliance

Countries seeking to achieve EITI Candidate status must meet five sign-up requirements, and for a country to achieve EITI Compliance, it has two and a half years to be validated as a Compliant country. Once a country is Compliant, the country must undergo Validation at least every 5 years, or upon the request from the EITI International Board.⁸⁷⁸

^{875 &}quot;Government Contracts Tanzania" "Al Jazeera" retrieved on 27th December 2014.

^{876 &}quot;Beating the Resource Curse in Africa: A Global Effort" "Council on Foreign Relations" retrieved on 27th December 2014.

^{877 &}quot;Beating the Resource Curse in Africa: A Global Effort" "Council on Foreign Relations" retrieved on 27th December 2014.

^{878 &}quot;EITI Implementation" EITI, retrieved 27 October 2011.

As of January 2013 18 countries were "EITI compliant", namely: Azerbaijan, Ghana, Iraq, Kyrgyz Republic, Mauritania, Mozambique, Nigeria, Peru, Timor-Leste, Zambia, Central African Republic, Liberia, Mali, Mongolia, Niger, Norway, Tanzania and Yemen. There were a further 18 "Candidate Countries": Afghanistan, Cameroon, Chad, the Democratice Republic of Congo, Guineau, Sao Tome and Principe, the Solomon Islands, Trinidad and Tobago, Albania, Burkhina Faso, Cote d'Ivoire, Gabon, Guatemala, Indonesia, Kazakhstan, Congo, Sierra Leone and Togo. Madagascar was temporarily suspended at the time.⁸⁷⁹

Validation Requirements

Sign-Up

The EITI rules state that a country applying for Candidate status must meet the following sign-up requirements:

- 1. The government is required to issue an unequivocal public statement of its intention to implement the EITI.
- 2. The government is required to commit to work with civil society and companies on the implementation of the EITI.
- 3. The government is required to appoint a senior individual to lead on the implementation of the EITI.
- 4. The government is required to establish a multi-stakeholder group to oversee the implementation of the EITI.
- 5. The multi-stakeholder group, in consultation with key EITI stakeholders, should agree and publish a fully costed work plan, containing measurable targets, and a timetable for implementation and incorporating an assessment of capacity constraints.⁸⁸⁰

Preparation

The government is required to: ensure the engagement of civil society in the process; engage companies; and remove legal and regulatory obstacles to the implementation of the EITI. The multi-stakeholder group is required to agree a definition of materiality and the reporting templates, which define what revenue streams are included in company and government disclosures. The organisation appointed

^{879 &}quot;EITI Countries" EITI, retrieved 15 January 2013.

^{880 &}quot;Sign Up" EITI retrieved 27 October 2011.

to produce the EITI reconciliation report must be perceived as credible, trustworthy and technically competent. The government is then required to ensure that all relevant companies and government entities report and that both company and government reports are based on accounts audited to international standards.⁸⁸¹

Disclosure

Companies must comprehensively disclose all material payments in accordance with the agreed reporting templates, and government agencies must comprehensively disclose all material revenues. The multi-stakeholder group must also be content that the organisation contracted to reconcile the company and government figures did so satisfactorily, and the reconciler must ensure that that the EITI Report is comprehensive, identifies all discrepancies, where possible explains those discrepancies, and where necessary makes recommendations for remedial actions to be taken.⁸⁸²

Dissemination

The government and multi-stakeholder group must ensure that the EITI Report is comprehensible and publicly accessible to encourage that its findings contribute to public debate.⁸⁸³

Review and Validation

Oil, gas and mining companies must support EITI implementation, and the government and multi-stakeholder group are encouraged to take steps to act on lessons learned, address discrepancies and ensure that EITI implementation is sustainable. Implementing countries are required to submit Validation reports in accordance with the deadlines established by the Board.⁸⁸⁴

Retaining Compliant Status

Compliant countries must maintain adherence to all the requirements listed above in order to retain Compliant status. 885

^{881 &}quot;EITI Rules" EITI, retrieved 27 October 2011.

^{882 &}quot;EITI Rules" EITI, retrieved 27 October 2011.

^{883 &}quot;EITI Rules" EITI website Retrieved 27 October 2011.

^{884 &}quot;EITI Rules" EITI, retrieved 27 October 2011.

^{885 &}quot;EITI Rules" EITI, retrieved 27 October 2011.

EITI Criteria

- 1. Publication: Regular publication of all material oil, gas and mining payments by companies to governments ("payments") and all material revenues received by governments from oil, gas and mining companies ("revenues") to a wide audience in a publicly accessible, comprehensive and comprehensible manner.
- 2. Audit: Where such audits do not already exist, payments and revenues are the subject of a credible, independent audit, applying international auditing standards.
- 3. Reconciliation: Payments and revenues are reconciled by a credible, independent administrator, applying international auditing standards and with publication of the administrator's opinion regarding that reconciliation including discrepancies, should any be identified.
- **4. Scope:** This approach is extended to all companies including state-owned enterprises.
- **5. Civil Society:** Civil society is actively engaged as a participant in the design, monitoring and evaluation of this process and contributes towards public debate.
- **6. Work Plan:** A public, financially sustainable work plan for all the above is developed by the host government, with assistance from the international financial institutions where required, including measurable targets, a timetable for implementation, and an assessment of potential capacity constraints.⁸⁸⁶

9.6 Natural Resource Governance Institute (NRGI) in Tanzania

Overview

The Natural Resource Governance Institute (NRGI), formerly the Revenue Watch Institute (RWI), is an independent, non-profit organisation which provides research-based policy advice to countries endowed with natural resources (oil, gas and mineral ore) to help these countries reap the maximum benefits from these resources.

^{886 &}quot;EITI Rules" EITI, retrieved 27 October 2011.

Specifically, the NRGI offers technical advice, and is engaged in advocacy, applied research, policy analysis and capacity-building (training). The NRGI works with key players such as government ministries, the civil society, the mass media, parliaments, the private sector, and international institutions. It is funded by philanthropic organisations and governments.⁸⁸⁷ The NRGI has offices in New York, Accra, Beirut, Lima and London. Additionally, the institute has staff presence in 10 countries: Cameroon, Guinea, Iraq, Indonesia, Libya, Myanmar, Nigeria, Uganda, Tanzania and Tunisia. At the country level, the NRGI provides training, technical assistance, capacity-building on how to deliver transparency and accountability through the implementation of the Extractive Industries Transparency Initiative (EITI), strengthening of financial systems; reform of state-owned enterprises; and improvements in the management of resource revenues.⁹⁸⁸

Activities in Tanzania

In Tanzania, the NRGI has been involved in capacity-building, policy advocacy, improving local awareness on transparency and accountability, and training of journalists. In these ventures, the NRGI has been working closely with local organisations such as the Policy Forum, Agency for Co-operation in Research and Development (ACORD) and the Journalists' Environmental Association of Tanzania (IET). The activities are as follows:

Strengthening Civil Society's Role in Natural Resource Governance

The NRGI and the Policy Forum implemented a programme to support the capacity of civil society organisations, Members of Parliament (MPs), and the media in the area of resource transparency and accountability. By then, the government was finalising a new legal and policy framework for the oil and gas sectors, and the Policy Forum—a network of about 80 organisations—produced a technical analysis of the draft bill, and engaged civil society groups, media and MPs.⁸⁸⁹

^{887 &}quot;About NRGI" "Natural Resource Governance Institute" retrieved 27 January 2014.

^{888 &}quot;About NRGI" "Natural Resource Governance Institute" retrieved 27 January 2014.

^{889 &}quot;Strengthening Tanzanian Civil Society's Role in Natural Resource Governance" "Natural Resource Governance Institute" retrieved 27 January 2014.

Building Awareness of EITI

The Agency for Co-operation in Research and Development (ACORD), with assistance from the NRGI, enhanced stakeholder collaboration in the country through the Extractive Industries Transparency Initiative (EITI) and developed dissemination strategies for EITI-related information to facilitate greater public awareness on the importance of good governance in natural resources. Tanzania signed up to EITI in February 2009. Two years later in February 2011, Tanzania published its first EITI report and commenced the EITI validation process. ⁸⁹⁰

NRGI's views on Statoil's Leaked Agreement

In July 2014, a significant addendum to a Production Sharing Agreement (PSA) between Statoil and the Tanzania Petroleum Development Corporation (TPDC) leaked and ignited a public debate on whether the government "got a good deal" from granting extraction rights to Statoil for a block now expected to produce commercially viable large amounts of natural gas. According to the NRGI financial analysis, the deal "is not out of line with international standards for a country that had no proven offshore reserves of natural gas at the time when the original contract was signed. Thus claims that the addendum is on its face grossly unfair to Tanzania appear to be premature."

Strengthening Media Oversight of the Extractive Sectors

The NRGI offers training to journalists in several countries, Tanzania included. Other countries include Ghana, Republic of Guinea, and Uganda. This training is mainly aimed at improving the media's capacity to report on oil, gas and minerals. Journalists in these countries need training primarily because many resource-rich countries lack a significant presence of journalists with requisite knowledge and skills to report in depth on oil, gas and mineral issues. The research, "There will be ink", commissioned by the NRGI and implemented by Columbia University's School of Journalism and School of International and Public Affairs, studies the environment for journalism in Nigeria, Ghana and Uganda and concludes that "most journalism training was short-term with little follow-up or monitoring. Existing training programs had a broad focus on

^{890 &}quot;Building Comprehensive Local Awareness of EITI" "Natural Resource Governance Institute", retrieved 27 January 2014.

^{891 &}quot;Tanzania and Statoil: What does the leaked agreement mean?" "Natural Resource Governance Institute", retrieved 27 January 2014.

business and economics and failed to address issues about prudent and responsible management of the extractive industries and the revenues they generated."892

In Tanzania, the NRGI works with JET. The first training was conducted in Dar es Salaam, and the second one was held in Kampala in June 2014. The Kampala training was attended by 29 journalists from Ghana, Uganda and Tanzania. Tanzanian journalists came from KwanzaJamii, The Guardian, East African Business Week, Zanzibar Leo, Pambazuko FM, Nipashe, Channel 10, Zanzibar Broadcasting Corporation, and the Daily News.⁸⁹³

Publications

The NRGI publishes research papers, books and other publications on issues relating to oil, gas and mining. The publications include: Tanzania and Statoil: What Does the Leaked Agreement Mean for Citizens?; Natural Resource Charter; Big Spenders: Swiss Trading Companies, African Oil and the Risks of Opacity; Reforming National Oil Companies: Nine Recommendations; National Hydrocarbon Accounting: A New Methodology for Oil-Rich Countries; How Can Ugandans Benefit from an Oil Windfall? Policy Options to Manage Petroleum Revenues; Azerbaijan: Assessment of Economic and Export Diversification; Assessing Mineral Licensing in a Decentralized Context: The Case of Indonesia; Forecasting Ghana's Oil Revenues for the 2015 Budget Using a Fiscal Model of the Jubilee Field; and Oil, Gas and Minerals for the Public Good: The Revenue Watch 2013 Resource Governance Index.⁸⁹⁴

9.7 Publish What You Pay (PWYP)

Publish What You Pay (PWYP) is a global network of civil society organisations calling for oil, gas and mining revenues to form the basis for development and improve the lives of ordinary citizens in resource-rich countries.

From a few, mostly UK-based groups at the time of its launch, as of early 2015, PWYP had created a global network made up of more

^{892 &}quot;Strengthening Media Oversight of the Extractive Sectors" "Natural Resource Governance Institute" retrieved 27 January 2014.

^{893 &}quot;Strengthening Media Oversight of the Extractive Sectors" "Natural Resource Governance Institute" retrieved 27 January 2014.

^{894 &}quot;All Publications" "Natural Resource Governance Institute" retrieved 27 January 2014.

than 800 member organisations across the world, including human rights, development, environmental and faith-based organisations. In more than 35 countries, network members joined to create national coalitions. Many also collaborate on a regional level.⁸⁹⁵

According to Jonas Moberg of the Extractive Industries Transparency Initiative (EITI), PWYP has created a "light touch global network". ⁸⁹⁶ PWYP has often been seen to be the flagbearer of a strategy which says transparency efforts should be led by legal and regulatory requirement, and made obligatory on companies, in contrast to the approach adopted by the EITI, which is consensual. ⁸⁹⁷

History

The call to 'publish what you pay' first appeared in a 1999 report by Global Witness on the oil and banking industries in Angola.

On the back of this, in June 2002 Global Witness, along with fellow founding members CAFOD, Open Society Institute (OSI), Oxfam GB, Save the Children UK and Transparency International UK, launched the worldwide PWYP campaign. The small founding coalition of NGOs was soon joined by others such as Catholic Relief Services, Human Rights Watch, Partnership Africa Canada, Pax Christi Netherlands and Secours Catholique/CARITAS France, along with an increasing number of groups from developing countries.

Activities

PWYP undertakes public campaigns and policy advocacy to achieve disclosure of information about extractive industry revenues and contracts. 899

The organisation's call for companies to 'publish what you pay' and for governments to 'publish what you earn' form the basis of their activities. However the coalition also calls for transparency and accountable management and expenditure of public funds, as well as the public disclosure of extractive industry contracts and for licensing procedures to be carried out transparently and in line with best international practice.

⁸⁹⁵ About Us" Publish What You Pay retrieved 14 May 2015.

⁸⁹⁶ Without PWYP, no EITI" EITI Blog 16 September 2012.

⁸⁹⁷ Extractive Industries Transparency Initiative (EITI)" PWYP, retrieved 15 January 2013.

⁸⁹⁸ About Us" Publish What You Pay retrieved 14 December 2011.

⁸⁹⁹ About Us" Publish What You Pay retrieved 14 December 2011.

PWYP's activities consist primarily of advocacy efforts and capacity building of civil society groups. The growing desire to monitor the payments, revenues and expenditures within the extractives sector has also generated an increasing need for technical training around issues such; contracting and taxation regimes; auditing and accounting processes; EITI processes, rules and policies. PWYP collaborates with local and international actors to organize training workshops, conferences and seminars to help meet these needs. 900

Governance

In 2006 a Strategic Advisory Group (SAG) was established to oversee strategic planning. The SAG is comprised of 12 representatives from a broad spectrum of PWYP members from around the world.

PWYP has an International Coordinator (IC) based in London as well as one full-time regional coordinator for Africa, and coordinators for all national affiliated coalitions. These coordinators are supported and overseen by management committees.

Representatives from the entire coalition meet every two years for an international strategy meeting. 901

9.8 Tanzania Extractive Industry Transparency Initiatives (TEITI)

Background

Natural resources—oil, gas and mining—belong to a country's current citizens and posterity. Extraction and utilisation of these valuable resources can lead to economic growth, prosperity and social development. However, for that to happen, these resources have to be harnessed and managed in a proper manner that guarantees transparency and accountability on the part of the government and companies. 902 To ensure this becomes a reality and does not remain a pipe-dream in resource-rich countries, the Extractive Industries Transparency Initiative (EITI) was officially established on 17th June

⁹⁰⁰ About Us" Publish What You Pay retrieved 14 December 2011.

⁹⁰¹ How We Are Governed" Publish What You Pay retrieved 14 December 2011.

^{902 &}quot;What is the EITI?" "EITI" retrieved 10th October 2014.

2003 in London, UK.⁹⁰³ The EITI is a global coalition of governments, extractive companies and civil society organisations working jointly to enhance openness and accountability in the management of revenues stemming from natural resources.⁹⁰⁴

EITI in Tanzania

Tanzania became a member of the EITI on 16th February 2009. The Tanzania Extractive Industry Transparency Initiatives (TEITI), a local replica of EITI, is a local multi-stakeholder initiative whose primary objective is to oversee the implementation of EITI in the country. TEITI has 16 representatives drawn from the government, companies and the civil society. 905

How TEITI Works

TEITI works in a co-ordinated way. Oil, gas and mining companies disclose payments made by them to the government, and then the government discloses receipts of revenues. Afterwards, an independent consultant is hired to reconcile payments and revenues using a specific EITI reporting standard guideline, which leads to the publication of TEITI Report. 906

Reconciliatory Reports

The main objective of TEITI's reconciliatory report is to perform a reconciliation of material payments and receipts provided by relevant extractive companies and governmental agencies. Since 2011, Tanzania has published four reconciliatory reports.

First Reconciliatory Report

The first report was published in February 2011. The report was prepared by Hart Nurse Limited in association with BDO East Africa. These were appointed by the Ministry of Energy and Minerals to prepare the 1st EITI Reconciliation Report for Tanzania for the 1st July 2008 to 30th June 2009 period in the mineral and gas sector. The report covers reconciliation from nine (9) mining operations: Bulyanhulu Gold Mine Limited (Bulyanhulu), Pangea Minerals

^{903 &}quot;EITI: Statement of Principles and Agreed Actions" "DFID" retrieved 11th October 2014.

^{904 &}quot;What is the EITI?" "EITI" retrieved 10th October 2014.

^{905 &}quot;What is the EITI?" "EITI" retrieved 10th October 2014.

^{906 &}quot;Working Group" "TEITI" retrieved 10th October 2014.

Limited (Buzwagi), Pangea Minerals Limited (Tuluwaka), North Mara Gold Mine Limited (North Mara), Geita Gold Mine (Geita), Resolute Tanzania Limited (Golden Pride), Williamson Diamonds Limited (Mwadui), El-Hillal Minerals Limited (Mwadui), and Tanzanite One Mining Limited (Mererani). Only three gas companies—Pan African Energy Tanzania Ltd, Artumas Group & Partners (Gas) Ltd, and Songas (including the TPDC)—were involved in this exercise. The report indicates that the reconciliation did not include all the payments, such as import duties. Later amends were made by including the capture of such data in the data collection instrument. Generally, the report highlighted unresolved differences of Tsh 23.4 billion and USD 18 million. Consequently, the TEITI Multi-Stakeholder Group (MSG) resolved to engage the Controller and Auditor General (CAG) to investigate the above discrepancies. By May 2012, the MSG was implementing recommendations from the CAG's report which resulted in final unresolved differences of Tsh 2.1 billion and USD 328,865, respectively. The report provides several recommendations ranging from improving data collection; training TEITI and government staff on technical issues, objectives and requirements of EITI; inclusion of more mining, gas and oil companies in the reconciliation exercise.

Second Reconciliation Report

The second report covered the 1st July 2009 to 30th June 2010 period. It was carried out by BDO East Africa, Tanzania in collaboration with Paulsam Geo-Engineering Limited. Unlike the first report, which surveyed nine mining companies and three oil and gas companies, the second report covered 23 companies made up of 15 mining companies and eight oil and gas companies (including the TPDC). The oil and gas companies surveyed are Maurel et Prom. Tanzania Limited, Pan African Energy Tanzania Limited, Petrobras Tanzania Limited, Songas, Statoil Tanzania, Tullow Tanzania, B.V. Wentworth Gas Limited and the TPDC. The report indicates that the 23 companies represented more than 99% of the total revenue collected by Tanzania Revenue Authority (TRA), the Ministry of Energy and Minerals (MEM) and the Tanzania Petroleum Development Corporation (TPDC) during the period under review. Generally, the report indentifies a net difference of Tsh 5.0 billion with the government reporting less than the companies had reported to have paid. The government reported to have received total revenue of Tsh 419 billion (USD 305.36 million).907

^{907 &}quot;Second Reconciliation Report for Tanzania Extractive Industries Transparency Initiative (TEITI) for the year ending June 30, 2010" "TEITI" retrieved 10th October 2014.

Third Reconciliation Report

The third report covered the period from 1st July 2010 to 30th June 2011, and was carried out by BDO East Africa, Tanzania in collaboration with Paulsam Geo-Engineering Limited. This third report involved 30 companies made up of 18 mining and 12 oil and gas companies, an increase of 30% over the coverage of the second report. On the revenue collected by the government, the report indicates that the government received a total of Tsh 497 billion (USD 329.64 million), an increase of 19% from the figure of Tsh 419 billion (USD 305.36 million) reported in the previous year. Generally, a net difference of Tsh 11 billion remained unresolved at the end of the reconciliation as the government reported to have received less than what the companies had reported to have paid. 908

Fourth Reconciliation Report

The fourth report covered 26 mining companies and 20 oil and gas companies. The report indicates a net difference of Tsh 2 billion declared by the government. This means that the Tanzania Government reported receipts of Tsh 2 billion less than the companies had reported to have paid. The net difference in the mineral sector was Tsh 3 billion, whereas in the oil and gas sector it was pegged at Tsh 1 Billion.⁹⁰⁹

Gap Assessment

In May 2013, the International EITI board approved new reporting guidelines by EITI implementing countries. The guidelines which move beyond disclosure of revenue data, demands that EITI reports also include critical information such as disclosure of data on the value and volume of production and export of commodities; allocation of licences and beneficial ownership; social expenditures; revenue collection; revenue management; government transfers by state-owned enterprises (SOEs); sub-national payments; social impact and revenue management. In June 2014, NRGI published a report titled "Implementing the 2013 EITI Standard in Tanzania: Gap analysis and recommendations for mining and petroleum sectors", which stresses

^{908 &}quot;Third TEITI Reconciliation Report" "TEITI" retrieved 10th October 2014.
909 "[http://www.teiti.or.tz/fourth-teiti-reconciliation-report/ Fourth TEITI Reconciliation Report]", "TEITI", retrieved 10th October 2014.

the need for TEITI's reports to adhere to the new standard. The report, among others, recommends the following:⁹¹⁰

- MSG decides on a definition of beneficial ownership which would then be included in the Terms of Reference (ToR) for the consultant. The information to be captured, according to the report, include "company's full name; legal form and status; year of incorporation; a full list of directors and senior officers; all individuals or entities holding more than 5 percent of total shares in the company, including their full names, addresses, numbers and categories of shares held.";
- The TEITI report should also document the nation's policy on disclosure of contracts;
- The report should capture information on the economic contribution of the extractive industries divided by region/area where relevant;
- The report should include export figures for the reporting year and at least a year ago;
- The report should ensure a better understanding of the relationship between production and revenue, and should include information on production volumes and value of different commodities at various stages of production;
- The report should include the methodology and prices used to compute the value of volumes of commodities produced and exported;
- The report should include reforms or proposed reforms which featured in the reporting year;
- The report should collect data on the contribution of the gas sector to the national economy;
- The report should disclose revenue accrued from bonuses from each extractive industry, company and project; and
- Local content information should be included in the TEITI report.

^{910 &}quot;Implementing the 2013 EITI Standard in Tanzania: Gap analysis and recommendations for mining and petroleum sectors June 2014" "TEITI" retrieved 10th October 2014.

Multi-stakeholders Group

A Multi-Stakeholder Group (MSG), which has three-year tenure, is currently composed of the following members:911

- Hon. Mark Bomani Chairperson
- Mr. Paul Masanja Commissioner for Minerals (MEM-Government)
- Mr. Alfred Missana MFEA (Government)
- Mr. Alfred Mregi Commissioner for Taxpayers (TRA)
- Mr. Yona Killagane Managing Director (TPDC)
- Mr. Kharist M. Luanda Ass. Director (Local Government)
- Rev. Dr. Steven Munga Faith Based Organisations (Civil Society)
- Arch. Mbaraka H. Igangula Trade Unions (Civil Society)
- Mr. Amani Mhinda HakiMadini (Civil Society)
- Ms. Blandina Sembu Disabled (Civil Society)
- Mr. Bubelwa Kaiza Research and Development Centre (ForDIA -Civil Society)
- Mr. Alfred Mwaswenya Small Scale Mines (Companies)
- Ms. Kate Methley OGAT (Companies)
- Mr. Gerald Mturi Tanzania Chamber of Minerals and Energy -TCME (Companies)
- Mr. Godvictor Lyimo Tanzania Chamber of Minerals and Energy -TCME (Companies)
- Eng. Emmanuel Jengo Tanzania Chamber of Minerals and Energy - TCME (Companies)

9.9 Extractive Inter-Stakeholders Forum (EISF)

The Extractive Inter-Stakeholders Forum (EISF), originally known as the Mining Inter-Stakeholders' Forum (MISF), is a non-profit company registered in February 2008 under the Companies Act of 2002. The forum was established to open a dialogue between stakeholders in

^{911 &}quot;Working Group" "TEITI" retrieved 10th October 2014.

the extractive industry with the view to facilitating the emergence of a win-win situation in the industry.⁹¹²

Functions

The Forum collaborates with the Ministry of Energy and Minerals to ensure a harmonious relationship among key stakeholders, namely the extractive industry companies, the Tanzanian Government and the local communities. The forum coordinates two main activities in the extractive industry. The first activity is to ensure that the extractive process is done in a proper and sustainable manner by spearheading the Presidential Corporate Social Responsibility and Empowerment Award in Extractive Industries, which was officially launched in 2012. The second focus is the co-ordination of all activities that are expected to transform the lives and livelihoods of local communities through promoting local content participation in the Extractive Industry supply chain. 913

Vision and Mission

The Forum's envisions to "have an Extractive Sector in Tanzania where extractive companies, local communities and the Government of Tanzania work together as partners in order to fuel business success, social and economic development and poverty eliminated altogether" with a mission to "co-ordinate and partner up with the Government, local community and Investors in ensuring Extractive Industry's Corporate Social Responsibility and Empowerment programs are tailored to the stakeholders' needs and promote local community and investor participation in the Extractive Industry supply chain." ⁹¹⁴

9.10 HakiMadini

Overview

Haki (Rights) Madini (Minerals) is a non-profit organisation focusing on advocacy for socio-economic rights for small-scale miners and communities in areas that contain natural resources.⁹¹⁵

^{912 &}quot;Extractive Inter-Stakeholders' Forum" "EISF Blog" retrieved 20th August 2015.

^{913 &}quot;Extractive Inter-Stakeholders' Forum" "EISF Blog" retrieved 20th August 2015.

^{914 &}quot;Extractive Inter-Stakeholders' Forum" "EISF Blog" retrieved 20th August 2015.

^{915 &}quot;Home" "HakiMadini" retrieved 02 December 2014.

The organisation agitates for a more equitable distribution of natural resource wealth, with transactions carried out in a transparent and accountable sector. Since 2008⁹¹⁶, HakiMadini's main office is located in Arusha.⁹¹⁷ Its activities include policy lobbying, hosting community forums, organising media campaigns and exchanging knowledge and experience with other like-minded organisations active in the sector.⁹¹⁸

Background

HakiMadini began its operations as a grassroots movement in the late 1990s in the wake of Human Rights abuses committed in Tanzania's Mineral Sector. Initially, the movement engaged concentrated on resolving disputes between small-scale miners and parties involved in the Tanzanite One Mine and the rights of service providers to conduct business. To cope with the challenges imposed by increased Foreign Direct Investments (FDIs), ground issues such as HIV prevalence, family violence and loss of livelihoods in the affected communities as well as the impact of the mining policies, HakiMadini started to network with local and international organisations. 919

Oil and Natural Gas related Activities

HakiMadini co-hosts and participates in various resource forums aimed at fostering dialogue with the Oil, Gas and Minerals Sector. In collaboration with Policy Forum and the Interfaith Committee on Economic Justice and Integrity, HakiMadini held the second Tanzania Mining, Oil & Gas Forum in Dar es Salaam in September 2012.

In November 2014, HakiMadini in collaboration with the Natural Resource Alliance of Kenya (KeNRA) held the Natural Resource Forum at the Zinduka Festival, Arusha. The topics discussed include the impacts of oil and gas on governance and the livelihoods of affected communities. 920

^{916 &}quot;Background" "HakiMadini" retrieved 02 December 2014.

^{917 &}quot;Contract" "HakiMadini" retrieved 02 December 2014.

^{918 &}quot;Background" "HakiMadini" retrieved 02 December 2014.

^{920 &}quot;Zinduka Natural Resource Forum Programme" "Static" retrieved 02 December 2014.

9.11 Tanzania Natural Resource Forum

Founded in 2001, the Tanzania Natural Resource Forum (TNRF) is a membership-based organisation that focuses on improving natural resource governance in Tanzania. TNRF aims to bridge the gap between local natural resource management needs and practices, on the one hand, and national natural resource management priorities, policies, law and programmes, on the other hand. It seeks to improve governance and accountability in Tanzania's natural resource sector to achieve more sustainable rural livelihoods and better conversation outcomes by bringing together a diverse range of stakeholders and interests to share information, collaborate and pool resources together towards realising common goals. TNRF has a membership of more than 3,800 people and organisations, supporting professional staff, and a steering committee drawn from the membership.

Gas related activities

TNRF facilitates multi-stakeholder dialogues on land and investment in Tanzania to address potential areas for natural resource conflict, including land conflicts resulting from gas and oil exploration and production. 925

TNRF is a member of the Extractive Industry Working Group that advises the Tanzania Government and comments on draft policies governing the oil and gas sector in the country. 926

A joint statement of the group found shortcoming in the draft natural gas policy in 2013 for failing to contain several important specific provisions on the private sector as well as on gender issues. With regard to the private sector, the group emphasised the importance of explicitly detailing how the private sector would be involved in

^{921 &}quot;Tanzania Natural Resource Forum" "Policy Forum", retrieved 23 May 2015.

^{922 &}quot;Tanzania Natural Resource Forum" "International Relations and Security Network", retrieved 23 May 2015.

^{923 &}quot;Tanzania Natural Resource Forum" "Poverty and Conversation", retrieved 23 May 2015.

^{924 &}quot;About" "Tanzania Natural Resource Forum" retrieved 23 May 2015.

^{925 &}quot;Approach" "Tanzania Natural Resource Forum" retrieved 23 May 2015.

^{926 &}quot;Tanzania offshore and north Lake Tanganyika licensing round government must act strategically" Policy Forum, retrieved 23 May 2015.

various areas the policy addresses. This is not the case under the present policy.⁹²⁷

9.12 The Interfaith Standing Committee on Economic Justice and the Integrity of Creation (ISCJIC)

The Interfaith Standing Committee on Economic Justice and the Integrity of Creation (ISCJIC) is a faith-based committee comprising religious leaders from the Christian Council of Tanzania (CCT), Tanzania Episcopal Conference (TEC), and the National Muslim Council of Tanzania (BAKWATA). The committee was founded in 2008 to facilitate the religious leaders' role in advocating effectively for social and economic justice. 928

Members

Christian Council of Tanzania (CCT)

The Christian Council of Tanzania (CCT) was established in January 1934 as a fellowship of Church and non-Church Christian organisations. It was then named the Tanganyika Missionary Council until 1964 when it adopted its current name. The CCT is an Ecumenical Church Organisation formed by twelve Protestant Churches and twelve Para-Churches Organisation/ministries. Its mission is to foster unity and enhance capacities of members to witness for Christ and foster holistic development. 929

Tanzania Episcopal Conference (TEC)

The Tanzania Episcopal Conference (TEC) is the assembly of the Bishops of Tanzania. It was founded in 1957 and officially recognised by the Tanzania Government in 1958. It is headquartered in Dar es Salaam and includes all Roman Catholic bishops in the country. The TEC consists of the following institutions: the Plenary Assembly, the Permanent Council, the Secretary-General, eight departments, three research units, eight commissions. The authority and responsibility

^{927 &}quot;Group faults draft national gas plan", "The Citizen", retrieved 23 May 2015.

^{928 &}quot;The one billion dollar question: How can Tanzania stop losing so much tax revenue", "ISCJIC", retrieved 25 February 2015.

^{929 &}quot;About CCT", "CCT", retrieved 25 February 2015.

for managing the activities of TEC are granted to the Plenary Assembly, which is composed of all members and meets once a year. It is chaired by the President of the Conference.⁹³⁰

National Muslim Council of Tanzania (BAKWATA)

The National Muslim Council of Tanzania, known as BAKWATA by its Kiswahili acronym (Baraza Kuu la Waislam Tanzania) is a faith-based Islamic organisation registered since 1968. The Council has branches all over Tanzania with a network from the national to the grassroots level with 22 regional and 113 district offices served by over 700 sheikhs. Around 2,800 mosques are run under its co-ordination.⁹³¹

Natural Gas related activities

Review of the National Petroleum Policy Draft

The ISCJIC in collaboration with HakiMadini, Policy Forum and Oil and Natural Gas Environment Alliance (ONGEA) reviewed the draft of the National Petroleum Policy of Tanzania. In a joint statement, they advised the government Tanzanian Ministry of Energy and Minerals to start the consultation process with national stakeholders and the general public. Moreover, they urged the Ministry to do two things: Firstly, to establish effective financing options for the National Oil Company and its subsidiaries and, secondly, to ensure transparency and accountability in the management of the natural gas resources in the country. 932

Comments on Leaked Statoil PSA addendum

ISCJIC, HakiMadini, Policy Forum and Oil and Natural Gas Environment Alliance (ONGEA) teamed up and issued a statement on the controversy surrounding the leaked addendum to Production-Sharing Agreement (PSA) between Statoil and the government. They asked the Tanzania Government to refrain from endorsing confidentiality clauses in future contracts and to review the existing clauses. They also criticised the Tanzania Petroleum Development Corporation (TPDC) for failing to provide information on the

^{930 &}quot;About us" "TEC" retrieved 25 February 2015.

^{931 &}quot;Tanzania BAKWATA Summary" "ARC World" retrieved 25 February 2015.

^{932 &}quot;Stakeholders: Petroleum policy must enhance poverty reduction, boost industries" "IPP Media", retrieved 25 February 2015.

underlying economic rationale and assumptions applied to justify either deviation from the model addendum or the actual terms of the signed PSA.

9.13 The Oil, Natural Gas and Environmental Alliance (ONGEA)

The Oil, Natural Gas and Environmental Alliance (ONGEA) is the largest national coalition of civil societies involved in natural gas and environmental advocacy in Tanzania. It consists of at least 40 civil society organisations. The alliance draws its membership from local communities from all over Tanzania, especially in and around oil and gas-rich areas such as Kilwa, Mnazi Bay, Mafia and Mkuranga where huge deposits of gas have been discovered.

Natural Gas related activities

Review of the National Petroleum Policy Draft

ONGEA together with the civil society organisations—HakiMadini, Policy Forum and the Interfaith Standing Committee on Economic Justice and the Integrity of Creation (ISCJIC)— reviewed the draft of the National Petroleum Policy of Tanzania. In a joint statement, they urged the Ministry of Energy and Minerals to begin the consultation process with domestic stakeholders and the public. Moreover, they urged the Ministry to establish effective financing options for the National Oil Company and its subsidiaries and to ensure transparency and accountability in the management of the country's natural gas resources.⁹³⁷

⁹³³ "Pressure mounts over Statoil agreement" "The Citizen" retrieved 25 February 2015.

^{934 &}quot;Tanzania: Library On Oil, Gas Now in Pipeline" "All Africa" retrieved 22 February 2015.

^{935 &}quot;Lawyers poke holes draft natural gas policy" "Trade Mark SA" retrieved 22 February 2015.

^{936 &}quot;Tanzania: Library On Oil, Gas Now in Pipeline" "All Africa" retrieved 22 February 2015.

^{937 &}quot;Stakeholders: Petroleum policy must enhance poverty reduction, boost industries", "IPP Media", retrieved 22 February 2015.

Statement on Statoil leaked PSA addendum

ISCJIC, HakiMadini, Policy Forum and ONGEA teamed up and issued a statement on the controversy surrounding the leaked addendum to a Production Sharing Agreement (PSA) between Statoil and the government. In the statement, they ask the government to refrain from endorsing confidentiality provisions in any future contracts and review the existing provisions. Moreover, they criticise the Tanzania Petroleum Development Corporation (TPDC) for not providing information on the underlying economic rationale and assumptions applied to justify neither deviation from the model addendum nor the actual terms of the PSA signed. 938

Specialised Library

ONGEA is working on establishing a specialised library exclusively for Oil and Gas information. The alliance has also made efforts to translate the Petroleum (Exploration & Production) Act of 1980 into Kiswahili, the language that would make it universally accessible to Tanzanians. ⁹³⁹

^{938 &}quot;Pressure mounts over Statoil agreement", "The Citizen", retrieved 22 February 2015.

^{939 &}quot;Tanzania: Library On Oil, Gas Now in Pipeline", "All Africa", retrieved 22 February 2015.

10. Employment and Local Content

10.1 Employment Outlook in Tanzania

The ongoing natural gas discoveries in the country offers promising job prospects for Tanzanians and could provide an impetus for future development and even greater job generation. Different analysts agree that if resources are managed wisely and used to develop other job-intensive sectors, the gas findings will have a very positive impact on the job market and improve Tanzania's employment outlook.940 However, publicly available assessments suggest that there is a short supply of Tanzanians who currently possess market-ready skills or job experience related to the industry. Indeed, not many Tanzanians possess the requisite skills to work in the gas exploration, gas extraction, gas processing, and gas transportation sub-sectors. And yet, the direct jobs presently available in the gas industry are very limited and highly competitive.941 Nevertheless, this does not mean no Tanzanians will be employed in the gas sector, but that inflated expectations should be avoided, including starting to count the chicks before they are hatched.

Employment in Numbers

As the gas development in Tanzania remains in the early stage, it is extremely difficult to make reliable predictions of how many jobs might be created in the sector. In fact, a preliminary assessment commissioned by BG Tanzania and shared with the Tanzania Government compiled information on the potential direct demand for a typical LNG development and came up with the key result: 942 Tanzanians could benefit from the expanding employment opportunities that the extraction of the natural gas would offer, particularly during the construction phase of a LNG plant. Generally, labour demands differ in different phases of development:

^{940 &}quot;Tanzania" African Economic Outlook, retrieved 09 April 2015.

^{941 &}quot;Making Natural Gas Guarantee Sustainable Development" The Economic and Social Research Foundation (ESRF), 2013.

^{942 &}quot;Pathway to vocational employment in the emerging Tanzanian gas sector", VSO, November 2014.

Exploration Phase

To support BG Tanzania's exploration activities from 2012 to 2013, 33 Tanzanians were employed as BG staff in Dar es Salaam, 355 by contractors based in Dar es Salaam, 72 were employed offshore on the drilling rig and 500 in Mtwara at the supply base. These labour requirements resulted largely from the construction activities at the Mtwara Port as well as the need of drivers and security guards. Additional jobs have been generated in the supply chain to support the direct and indirect roles. Although Tanzanians with different skills were recruited, the bulk of recruited staff was at the craftsman (semi-skilled) and labourer (unskilled) levels. 943

LNG Development

The planned LNG development is associated with different types of employment opportunities. (1) An LNG development creates direct employment. This refers to staff directly hired by gas companies holding block licences and their first-tier sub-contractors. (2) Indirect employment is labour demand created through gas sector-related activities supply chain as a result of the demand for goods and services that a LNG development consumes. (3) Induced employment, on the other hand, refers to labour demand resulting from the economic stimulus created by the incomes spent by those directly or indirectly employed by an LNG development. 944

The actual labour development associated with an LNG development varies across the development phases, with each phase requiring a different mix of skills.⁹⁴⁵

The labour demand will build up and peak during the construction of the LNG plant. During the operational phase, the labour demand would drop and would be maintained throughout that phase until the plant is decommissioned. 946

^{943 &}quot;Pathway to vocational employment in the emerging Tanzanian gas sector" VSO, November 2014.

^{944 &}quot;Pathway to vocational employment in the emerging Tanzanian gas sector" VSO, November 2014.

^{945 &}quot;Pathway to vocational employment in the emerging Tanzanian gas sector" VSO, November 2014.

^{946 &}quot;Pathway to vocational employment in the emerging Tanzanian gas sector" VSO, November 2014.

Addressing the skills gap

In 2014, Tanzania's Minister for Energy and Minerals announced a target of training 300 Tanzanians by 2020 to work in the natural gas and oil sector. These workers shall include lawyers, accountants, auditors and engineers specialising in the sector.⁹⁴⁷

The Vocational Education and Training Authority (VETA) centre at Mtwara is preparing prospective employees in eight key areas that are related to the oil and gas industry: food preparation, plumbing, welding, carpentry, motor vehicle mechanics, electrical installation and maintenance, laboratory assistantship and English language skills. Security is another sector that offers employment opportunities to Tanzanians. As offshore exploration activities progressed, Somali pirate activity picked up, hence forcing exploration companies to invest heavily in security. 949

10.2 Supply Chains of the Oil and Gas Industry in Tanzania

Definition Supply Chain

A supply chain refers to the network created amongst different companies producing, handling and/or distributing a specific product. Specifically, the supply chain encompasses the steps necessary to get a good or service from the supplier to the customer. Supply chains include every company that comes into contact with a particular product. For example, the supply chain for most products will encompass all the companies manufacturing parts for the product, assembling it, delivering it and selling it.

Oil and Natural Gas Supply Chains

The oil and gas industry has very long supply chains. Many companies are involved in supplying the materials, components and services at different stages and various extracting, refining and distributing

^{947 &}quot;Does Tanzania's natural gas boom mean jobs, electricity" AFK Insider, retrieved 09 April 2015.

^{948 &}quot;Does Tanzania's natural gas boom mean jobs, electricity" AFK Insider, retrieved 09 April 2015.

^{949 &}quot;Does Tanzania's natural gas boom mean jobs, electricity" AFK Insider, retrieved 09 April 2015.

processes for oil and gas. Oil and gas companies source services and supplies from many different countries. These include mechanical and electrical parts, professional services such as project management and legal expertise for drawing up contracts.

Local Oil and Natural Gas Supply Chains in Tanzania

Policy

Natural Gas Policy - 2013

The National Natural Gas Policy states that the natural gas industry in Tanzania should invest to maximise the supply of Tanzanian goods and services. It further recognises that achieving the objective of maximising local content requires the implementation of sound policies, strategies, action plans, continuous consultation amongst key stakeholders and strengthening of the capacity of various institutions such as Local Government Authorities (LGAs) and Community-Based Organisations (CBOs). In this regard, the policy calls on international oil and gas companies to create opportunities for maximising local content. 950

Local Content Policy of Tanzania for Oil and Gas Industry-2014

In April 2014, the Ministry of Energy and Minerals published a first draft of the Local Content Policy of Tanzania for Oil and Gas Industry. The policy, once finalised, is to serve as a precursor to a local content bill that will later on become local content legislation. The draft policy opens with the statement: "Natural gas resource found in Tanzania belongs to the people of the United Republic of Tanzania, and must be managed in a way that benefits the entire Tanzanian society. Two of the five focus areas as outlined in the draft policy address local supply chains: 1. Procurements and usage of locally produced goods and services: The government will (i) ensure there is a compulsory local content requirement in every invitation to bid

^{950 &}quot;The National Natural Gas Policy of Tanzania - 2013" "Government United Republic of Tanzania" October 2013.

^{951 &}quot;Tanzania Publishes First Draft of a Long-Awaited Local Content Policy", "King & Spalding", July 2014.

^{952 &}quot;Draft One Local Content Policy of Tanzania for Oil and Gas Industry – 2014", "Government United Republic of Tanzania, April 2014.

for the provisions of goods and services; (ii) ensure that contractors and lead sub-contractors manage risks of local businesses to allow for their participation; and (iii) ensure transparency, value for money and competitiveness in every procurement process undertaken by contractors and sub-contractors. 2. Fabrication and manufacturing in-country: To increase and maximise manufacturing in Tanzania, the government shall (i) ensure the availability of equity financing to local businesses engaged in fabrication and manufacturing; (ii) ensure that Tanzanians with required skills are available to participate in fabrication and manufacturing; (iii) encourage multinationals to bring their global oilfield services and equipment to Tanzania; and (iv) ensure the development of a consolidated domestic fabrication industry.953 Furthermore, the draft policy defines a "Local Business" as the one that is incorporated in Tanzania and is wholly owned by Tanzanians or at least 51 percent of the shares are owned by Tanzanians. An interest held by a Tanzanian entity can only be transferred to another Tanzanian entity. Ownership structures of businesses are to be carefully scrutinised to determine the authenticity of Tanzanianowned shares, taking lessons from other countries that have faced the challenge of "shadow shareholders." 954

Opportunities

Various analysts have described different opportunities for Tanzanian companies to participate in the country's gas sector. According to the Governor of the Bank of Tanzania (BoT), the country's central bank, Professor Benno Ndulu, local companies have an opportunity to harness the availability of foreign firms and ensure that they partner with them to create win-win situations to bid for tenders in the gas sector. International companies in the gas sector need quality work. For a local company to gain access in the supply chain they need such assurance to quality of their products and this can only be realised by partnering with foreign firms," he said. The Bot Governor sees the main opportunities for local companies in participating in the downstream activities where food processing companies and construction, hospitality and even transportation will

^{953 &}quot;Draft One Local Content Policy of Tanzania for Oil and Gas Industry – 2014" "Government United Republic of Tanzania, April 2014.

^{954 &}quot;Draft One Local Content Policy of Tanzania for Oil and Gas Industry - 2014" "Government United Republic of Tanzania, April 2014.

^{955 &}quot;Supply chain to offer more jobs in Tanzania gas" East African Business Week, 21 June 2014.

^{956 &}quot;Supply chain to offer more jobs in Tanzania gas" East African Business Week, 21 June 2014.

be needed at the most.⁹⁵⁷ Sir John Hicks, Professor of Economics at the London School of Economics, asserts that global companies should source their needs locally and provide institutional support to local firms to help them grow. According to him, it is necessary to build local capabilities using global practices. The focus should be on generating a maximum number of good jobs by integrating local firms into the supply chain of the gas multinationals.⁹⁵⁸ A knowledge programme by the World Bank Group identified 15 industry clusters which could benefit most from developing linkages with the gas industry and in particular the construction of the LNG plant. However, the World Bank Group cautions against inflated expectations.⁹⁵⁹

Challenges

The current local supplier base in Tanzania is yet to meet the standards of the oil and gas industry despite its being a new industry in the country.960 Experience shows that the value of petroleum exploration and production is rarely translated into economic and social benefits for indigenous workers and supply industries, even in the most resource-rich African countries. This is particularly the case in emerging frontiers such as Tanzania.961 International service providers have existing, well-established relationships with international oil and gas companies which makes it easy for them to displace small local firms from the value chain of the oil and gas industry.962 Local content goals address these challenges but are inherently aspirational. In recognition of the need for substantial capacity-building in many African countries, local content obligations are typically qualified by caveats. For example, international oil and gas companies are required to prioritise the procurement of local goods and services and the hiring of local service providers, but only to the extent that no better alternatives in terms of price or quality are internationally available. The reality is that local capacity is often lacking, and international oil and gas companies who are

^{957 &}quot;Supply chain to offer more jobs in Tanzania gas" East African Business Week, 21 June 2014.

^{958 &}quot;Tanzania: Forum Demands for More Local Content in Gas Industry" All Africa, 12 June 2014.

^{959 &}quot;Developing local industries connected to the gas value chain: What can Tanzania learn from Malaysia", "Cecile Fruman", 29 September 2014.

^{960 &}quot;Tanzania: In the Gas Industry, Locals Can Get Involved in Supply Chain" All Africa, 25 August 2013.

^{961 &}quot;Understanding Local Content Policies on Africa's Petroleum Sector" "Andrews Kurth" October 2014.

^{962 &}quot;Understanding Local Content Policies on Africa's Petroleum Sector" "Andrews Kurth" October 2014.

(understandably) unwilling to procure sub-standard materials or hire unqualified personnel can easily opt out of their local content obligations. 963

10.3 University Training in Oil and Gas in Tanzania

Overview

Currently, petroleum-related university education is offered at the University of Dar es Salaam (UDSM), the University of Dodoma (UDOM) and the Mineral Resource Institute (MRI). 964

Petroleum-related education in Tanzania receives considerable assistance such as laboratory equipment, guest lecturers and scholarships for students as well as co-operative programmes. Currently, four B.Sc. programmes, including a technical degree and a M.Sc., are being offered at various institutions of higher learning in the country. 965

Existing Undergraduate Programmes

In October 2013, the UDSM started offering three petroleum-related undergraduate programmes. The College of Natural and Applied Sciences (CONAS) offers a B.Sc. in Petroleum Geology and the College of Engineering and Technology (CoET) offers a B.Sc. in Petroleum Engineering whose curriculum was co-developed with the Norwegian Technical University in Trondheim (NTNU). A B.Sc. in Petroleum Chemistry is offered in the Chemistry Department of the same UDSM. 966

The University of Dodoma (UDOM) started offering a B.Sc. in Petroleum Engineering in the College of Earth Sciences in the 2012/2013 academic year. The degree was benchmarked by similar overseas programmes offered in the United States, Norway, Saudi Arabia and India.[1] The Mineral Resource Institute (MRI) started

^{963 &}quot;Understanding Local Content Policies on Africa's Petroleum Sector" "Andrews Kurth" October 2014.

^{964 &}quot;Analysis of Petroleum related Education Needs in Tanzania" "NORAD" retrieved 9th of November 2014.

^{965 &}quot;Analysis of Petroleum related Education Needs in Tanzania" "NORAD" retrieved 9th of November 2014.

^{966 &}quot;Analysis of Petroleum related Education Needs in Tanzania" "NORAD" retrieved 9th of November 2014.

offering an Ordinary Diploma in Petroleum Geo-science 967 also in 2012/13. 968

Existing Postgraduate Programmes

In collaboration with NTNU, the UDSM's CoET offers a M.Sc. in Petroleum Geo-science and Engineering. The degree programme is part of the Norwegian ANTHEI (Angola Norway Tanzania Higher Education Initiative) programme for B.Sc., M.Sc. and PhD. Since mid-2013, the programme has been financed by Statoil which allocated US\$ 2.3 million to the project until 2017. The postgraduate degree is a two-year programme that allows a student to spend one year in Norway and the second year in Tanzania. 969

Enrolment

By October 2013, 72 students were enrolled in petroleum-related degrees at the UDSM. Each year, 10 students are expected to take part in the ANTHEI Masters programme. At UDOM, 115 students are enrolled, and 110 students are enrolled at the MRI. 970

Future Plans

UDSM

The University of Dar es Salaam Business School (UDBS) with support from Statoil is developing a programme on Petroleum Finance and Economics; the ANTHEI programme is expected to be fully transferred to the UDSM; and the Department of Chemical and Mining Engineering plans to launch an M.Sc. in Oil and Gas.⁹⁷¹

Nelson Mandela and MRI

The Nelson Mandela African Institute of Science and Technology in Arusha (NM-AIST) engages BG Tanzania to offer students potential apprenticeships in the future.

^{967 &}quot;Prospectus 2013" "Mineral Resource Institute", retrieved 9th of November 2014.

^{968 &}quot;Analysis of Petroleum related Education Needs in Tanzania" "NORAD" retrieved 9th of November 2014.

^{969 &}quot;Analysis of Petroleum related Education Needs in Tanzania" "NORAD" retrieved 9th of November 2014.

^{970 &}quot;Analysis of Petroleum related Education Needs in Tanzania", "NORAD" retrieved 9th of November 2014.

^{971 &}quot;Analysis of Petroleum related Education Needs in Tanzania", "NORAD" retrieved 9th of November 2014.

The Institute is also planning for a Petroleum-related post-graduate degree. The MRI intends to include programmes such as Oil and Gas Management and Petroleum Geology in its curriculum. ⁹⁷²

UDOM

The College of Earth Sciences plans to offer further degrees including a B.Sc. in Petroleum Geology, M.Sc. programmes in Petroleum Geology, Petroleum Reservoir Engineering and Petroleum Production Engineering.⁹⁷³

Training Challenges

The Norwegian Agency for Development Co-operation (NORAD)'s needs assessment established that university training in oil and gas in Tanzania is faced by the following challenges: concentration on upstream activities, excluding down- and mid-stream fields such as storage and transportation, lack of qualified teaching staff, lack of laboratories and equipment, and preponderance of theoretical orientation.⁹⁷⁴

10.4 Vocational Training in Oil and Gas in Tanzania

Introduction

Tanzania has been exploring oil and gas for more than sixty years now.⁹⁷⁵ It has yet to strike oil gold, but it has experienced gas discoveries aplenty, hence making the country a significant hunting ground for foreign investors.⁹⁷⁶ Despite this huge potential and prospects, the skills gap in the oil and gas industry remains yawning.⁹⁷⁷

^{972 &}quot;Analysis of Petroleum related Education Needs in Tanzania" "NORAD" retrieved 9th of November 2014.

^{973 &}quot;Academic-Programmes" "University of Dodoma" retrieved 12th of November 2014.

^{974 &}quot;Analysis of Petroleum related Education Needs in Tanzania" "NORAD" retrieved 9th of November 2014.

^{975 &}quot;The National Natural Gas Policy of Tanzania - 2013" "Government of Tanzania" retrieved 26 February 2015.

^{976 &}quot;The Oil and Gas Law Review" "Mkono" retrieved 26 February 2015.

^{977 &}quot;Tanzania faces vocational skills gap in oil and gas sector" "Corporate Digest" retrieved 26 February 2015.

Thus there is a pressing need for vocational training—which emphasises particular skills and knowledge required for a particular job function—in the country.

The Vocational Education and Training Authority (VETA) under the Ministry of Education and Vocational Training (MoEVT) came into being by a Vocational Educational and Training Act of 1994. VETA is charged with broad tasks of co-ordinating, regulating, financing, promoting and providing vocational education and training in Tanzania. According to Article 4(c), VETA is to satisfy the demands of the labour market for employees with trade skills to improve production and productivity of the country's economy.

VETA Training in Oil and Gas

The discovery of oil and gas in the country has inevitably ignited debate on the availability of a necessary and essential skilled labour force to serve the industry. Indeed, the sector requires a number of personnel in gas exploration, gas extraction, gas processing, and gas transportation. This list also includes cross-cutting activities in Safety Health and Environment (SHE), which also require qualified personnel that are not commonly and readily available in the country. As a matter of fact, the discovery of natural gas reserve in Mtwara and Lindi regions avails great opportunities for VETA to prepare locals well equipped with skills required in the oil and gas industry, thereby facilitating their ability to seize the resultant employment opportunities in the sector.980 As it is legally entrusted with the responsibility of regulating, providing, financing, and co-ordinating vocational education and training (VET) in Tanzania, VETA is best positioned to train and nurture skilled workforce among youths in oil and gas as it is has:981

 Vocational Education Training (VET) facilities in Mtwara and Lindi regions where natural gas has been discovered

^{978 &}quot;VETA profile" "VETA", retrieved 26 February 2015.

^{979 &}quot;The Vocational Education and Training Act" "Ministry of Finance" retrieved 26 February 2015.

^{980 &}quot;Making natural gas guarantee sustainable development: Plans and progress by VETA to prepare Tanzanians to engage in the natural gas value chain process" "ESRF" retrieved 26 February 2015.

^{981 &}quot;Making natural gas guarantee sustainable development: Plans and progress by VETA to prepare Tanzanians to engage in the natural gas value chain process" "ESRF" retrieved 26 February 2015.

- Strong support from both the central and local governments
- Established networks with stakeholders in almost all the regions in the country, and
- Experience in running and offering demand-driven skills training for different sectors and industries in the country

Due to its legal mandate and training capacity, VETA has recently launched a project, Enhancing Employability through Vocational Training (EEVT) in Mtwara region in partnership with BG Group and Volunteer Service Organisation (VSO). The three-year project, which received a financial boost of one million USD from BG Group, is aimed at improving the employability of the local population in Mtwara and Lindi regions as well as in Tanzania by elevating the training standards at Mtwara's VETA centre. The training focuses on the needs of oil and gas companies and related services. The project's immediate outputs:

- 24 VETA teachers with enhanced capacity in their fields and teaching methodology
- 24 vocational teachers with Level 2 International English Language certificate
- 7 VETA teachers from selected trades with a degree qualification
- 280 VETA students with internationally-accepted certificates in their trades and more than 50 percent of them engaged in the oil and gas industry and related services
- 5 members of the administration staff from Mtwara Regional Vocational Training Service Centre (RVTSC) trained in administrative and project management skills.⁹⁸²

The project's outcomes include:

 Raised local standards for craftsmanship skills to international level in eight areas: Carpentry, Plumbing, Welding, Motor Vehicle Mechanics, Electrical Installation and Maintenance, Food Production, Laboratory Assistant, and English Language

^{982 &}quot;Making natural gas guarantee sustainable development: Plans and progress by VETA to prepare Tanzanians to engage in the natural gas value chain process" "ESRF" retrieved 26 February 2015.

- Mtwara RVTSC becoming a centre of excellence for providing vocational training in disciplines relevant to the oil and gas industry and related services
- VETA graduates are employed by oil and gas companies and other related service companies
- Mtwara residents and Tanzanians at large are expected to benefit from increased employability, hence increased income
- The project will also be replicated in other regions through VETA's networks to ensure that other Tanzanians also benefit.⁹⁸³

Challenges

VETA's initiatives to develop the necessary skilled workforce for the oil and gas industry notwithstanding, a number of challenges remain considering the newness of the oil and gas activities in the country. Inevitably, VETA faces challenges such as inadequate capacity to provide world class competitive skills in oil and gas, which some experts attribute to "lack of a national strategy for developing local content for the gas industry." Other challenges include lack of requisite capacity among VETA's training staff; mismatch between the skills provided by VETA such as welding, masonry, carpentry, plumbing, etc., and the actual needs in the gas industry. 984

On the other hand, the Regional Director of South East Zone has defended VETA courses, insisting that they are compatible with international standards. But the VETA training director candidly and explicitly pointed out that Tanzania has yet to develop the capacity to provide modern technology training in the field and, therefore, vocational training centres should work in line with renowned international colleges to bridge the technological gap. Aware of the daunting training challenges the country faces in this sector, the Tanzania Petroleum Development Corporation (TPDC) Director

^{983 &}quot;Making natural gas guarantee sustainable development: Plans and progress by VETA to prepare Tanzanians to engage in the natural gas value chain process" "ESRF" retrieved 26 February 2015.

^{984 &}quot;Making natural gas guarantee sustainable development: Plans and progress by VETA to prepare Tanzanians to engage in the natural gas value chain process" "ESRF" retrieved 26 February 2015.

^{985 &}quot;VETA Mtwara trains future oil experts" "Daily News" retrieved 26 February 2015.

^{986 &}quot;VETA calls for collaboration with international institutes" "IPP Media" retrieved 26 February 2015.

of Exploration, Production and Technical Services, Dr Emma Msaky, advised the government to establish colleges for a special training in oil and gas to produce a good number of experts in the field: "[Tanzania] has massive oil and gas deposits and yet there are very limited experts to manage the various positions. It is therefore important that the government sets up special colleges for the oil and gas fields." ⁹⁸⁷

^{987 &}quot;Government urged to establish oil and gas varsities and colleges" "IPP Media" retrieved 26 February 2015.

11. Regional Overview

11.1 Oil and Gas Investment in East Africa

The recent discoveries of oil and gas in commercially-viable quantities in East Africa have attracted international attention and are expected to contribute greatly to the growth of the economies of these countries.

Uganda

Uganda is one of the new hotspots for the international oil and gas industry. Currently, the country's proven crude oil reserves stand at 2.5 billion barrels.988 The first commercially-viable oil discovery in Uganda was made in the Lake Albert Rift Valley in 2006. The valley is about 500 kilometres long and up to 45 kilometres wide. It forms Uganda's western border with the Democratic Republic of the Congo (DRC) and stretches from Lake Edward in the south to the border with South Sudan in the north. 989 It is not likely that all of Uganda's two billion barrels of proven oil reserves will be extracted because, as an oil well, empties it becomes harder and, therefore, uneconomic to extract the remaining reserves. Recently the government announced that from the currently discovered resources 1 billion barrels can be extracted, adding that it was possible for more hydrocarbons to be discovered in future. At the moment, Uganda does not produce any hydrocarbons. 990 Setting Uganda's oil reserves in a global context, one or two billion barrels represent a big find for Uganda—enough, to supply domestic needs for at least 20 years while selling a significant surplus overseas—but it is not a really big find for the world beyond. Saudi Arabia, for example, currently has 263 billion of proven reserves.991 The United Kingdom-based Tullow, Paris-based Total, and the China National Offshore Oil Corporation (CNOOC) are leading exploration and development activities in the country. Small-scale

^{988 &}quot;International Energy Statistics" "US Energy Information Administration" retrieved 09 September 2015.

^{989 &}quot;How much oil and gas does Uganda have and where is it" "oilinuganda. org" retrieved 09 September 2015.

^{990 &}quot;Uganda Oil Facts" "oilinuganda.org" retrieved 09 September 2015.

^{991 &}quot;Uganda Oil Facts" "oilinuganda.org" retrieved 09 September 2015.

oil production may begin within the next few years to power local electricity plants. However, since Uganda does not have a refinery or an export crude oil pipeline, full-scale oil production will depend on when the infrastructure would be put in place.⁹⁹²

Kenya

Following the oil discoveries in Uganda and recent gas discoveries in offshore East Africa the interest in the Kenya upstream oil and gas sector has intensified significantly. In March 2012, Tullow Oil and its partners announced the discovery of oil in Kenya's Tertiary Rift Basin. In January 2014. Tullow made two more significant discoveries of oil in Kenya, which doubled its Kenyan resource estimate. 993 Tullow Oil's 2014 annual report states that the company planned to make a final investment decision on the development of its findings in Kenya by late 2016. However, the drop of the oil prices led to a reduction of Tullow's activities in the country. The drop also forced other countries to withdraw completely from oil exploratory activities in Kenya. 994 Kenya plays a critical role, as a transit country, for its neighbouring countries depend on the crude oil and petroleum products imported through Kenya's Mombasa Port. In addition, the Mombasa refinery is one of the largest crude oil refineries in East Africa with a capacity of 90,000 barrels per day.995 In August 2015, Kenya and Uganda agreed on the construction of a crude oil export pipeline. The pipeline will convey oil from Uganda and Kenya to Kenya's northern Lamu Port. The pipeline construction project is estimated to cost between \$2.5 billion and \$5 billion. It will have a minimum capacity of conveying 300,000 barrels per day (b/d).996

^{992 &}quot;Overview Uganda" "US Energy Information Administration", retrieved 09 September 2015.

^{993 &}quot;Tullow finds more Kenyan oil boosting East Africa Export Plans" "Bloomberg News" retrieved 09 September 2015.

^{994 &}quot;Overview Kenya" "US Energy Information Administration" retrieved 09 September 2015.

^{995 &}quot;Overview Kenya" "US Energy Information Administration" retrieved 09 September 2015.

^{996 &}quot;Overview Kenya" "US Energy Information Administration" retrieved 09 September 2015.

Tanzania

Tanzania does not produce or have any proven oil reserves but in recent years major findings of natural gas have been made in offshore Tanzania. The exploration of oil and gas in Tanzania started in 1952, but the first discovery of natural gas was not made until 1974 at Songo Songo. In 1982, the second discovery was made in Mtwara region at Mnazi Bay. Since 2010 the country witnessed a series of offshore natural gas discoveries that have boosted Tanzania's potential of becoming a natural gas exporter in future. Moreover, the country expects to increase natural gas production in the coming years from the Mnazi Bay Concession. In mid-2015 the construction of a pipeline from Mnazi Bay to Dar es Salaam was completed. The gas is being used to fire new gas plants in the area that are supposed to decrease the cost of energy in the country and increase the reliability of power supply.

^{997 &}quot;National Natural Gas Policy of Tanzania - 2013" United Republic of Tanzania, Ministry of Energy and Minerals, retrieved 2 September 2014.

^{998 &}quot;Overview Tanzania" "US Energy Information Administration, retrieved 2 September 2015.

