The Natural gas sector in Tanzania. Suggestions for a better framework to benefit the Country.

Kulthum J. Boma

Masters in International and Comparative Law- Transcultural Business

Faculty of Law, University of Lapland

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Author:	Kulthum J. Boma
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Abstract:

The Possession of a resource such as natural gas can be a great source of revenue for any Country. Since the discovery of natural gas in Tanzania, a lot of developmental activities have been underway with respect to this sector by foreign investors. The Country ought to be properly prepared with these interactions between its Government and the foreign investors by setting out the best framework for these activities. The proper framework will ensure that the Government remains in control of the Sector and properly benefits from the same in order to increase revenue and subsequently meet its developmental goals.

This thesis considers the history of the Tanzanian natural gas Sector in brief, considers the current legal instruments governing the rights of obligations of both the investors and the Government namely: the production sharing agreements and the licensing regime. The Author criticizes the current regime for not being able to fully protect the interest of the host Government which alternatively gives 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 and suggests factors that ought to be considered whilst negotiating natural gas contracts in order to tackle the inadequacies of the current regime.

Keyword: Natural gas in Tanzania, Production Sharing Agreements, Licensing regime, Service Contracts, Negotiation natural gas contracts, Cost Recovery, TPDC.

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Table of Contents.

Bibliography.

Books.

Talus, Kim et al, 2010, Energy Law in Finland, Kluwer Law International, pg. 91-110.

Talus, Kim et al, 2010, Vertical Natural Gas Transportation capacity, Upstream Commodity Contracts and EU Competition Law, Helsinki University Print, pg. 14 -38.

Edited books.

Humphreys, Macartan et al, Escaping the resource curse, 2007, Columbia University Press, pg. 89- 113.

Shogen, Jason, Encyclopedia of energy, natural resource, and environmental economics, 2013, volume 3.

Electronic journals.

Bahgat, Gawdat, North Africa and Europe: Energy Partnership, 2009, Volume 3, Page 155-169.

Richard, Pierce,J, Natural Gas regulation, Deregulation and Contracts, 1982, Virginia Law Review, Volume 68, Page 63.

Tavern, B, Petroleum, Industry and Governments An Introduction to Petroleum Regulation, Economics and Government Policies, Kluwer Law International, 1999, Pg. 260

Johnsn D, International Petroleum Fiscal Systems and Production Sharing Contract, 42 (Pen Well Publishing Company, 1994, Page 56.

Electronic sources.

Natural gas, Residential use, (undated), http://www.naturalgas.org/overview/uses_residential.asp, 5.09.2013 (Author unknown)

Natural gas vehicles, (undated), http://www.afdc.energy.gov/vehicles/natural_gas.html, 5.09.2013, (Author unknown)

Songo Songo Gas Development and Power-Generation Project, Tanzania (undated), http://www.offshore-technology.com/projects/songosongo/, 7.09.2013 (Author unknown).

Ministry of Energy and Minerals, Notice to the public: How Mtwara and Lindi and benefit from the natural gas, (undated) http://www.tpdc-tz.com/Lindi_mtwara_gas.pdf, 8.09.2013 (Author unknown).

Tanzania Petroleum Development Corporation, about us, (undated), http://www.tpdc-tz.com/tpdc/About_Us.php, 12.09.2013.

Bakari, Abdallah et al, “Chaos hits Mtwara after gas project confirmation”, 22 May 2013, http://www.thecitizen.co.tz/News/-/1840392/1860180/-/ewg3dez/-/index.html, 11.09.2013.

Maurel & Prom Announces Success of the Mkuranga-1 well, Tanzania, (Author unknown), 16th January, 2013, http://www.gulfoilandgas.com/webpro1/MAIN/Mainnews.asp?id=4005, 9.09. 2013.

BG-Ophir hit gas discovery offshore Tanzania, (Author unknown), 30th July 2013, http://www.ogj.com/articles/2013/07/bg-ophir-hit-gas-discovery-offshore-tanzania.html, 9.09.2013.

Abdu, Fatma, Tanzania: Natural Gas Extracting Firms Contribute Sh321 Billion in VAT, 20 July 2013, http://allafrica.com/stories/201307221400.html, 13.09. 2013.

Akinwumi, Omolade, Cost Recovery and High Oil Price: How can host Governments capture adequate Revenue? A case study of Nigeria, (undated), https://www.dundee.ac.uk%2Fcepmlp%2Fgateway%2Ffiles.php%3Ffile%3DCAR-12_25_554710128.pdf&ei=r8A5UonWONSZhQe204GgDw&usg=AFQjCNFpktMHQpWIedlcDBVIUUINyHen4Q&bvm=bv.52288139,d.bGE, Page 4, Para 3, 18.09.2013.

Kuzhimova, Aigerim, “Is it economically justified for oil producing countries to use production sharing Agreements? A case study of Khazakhstan,(undated), www.google.fi/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&ved=0CCoQFjAA&url=http%3A%2F%2Fwww.dundee.ac.uk%2Fcepmlp%2Fgateway%2Ffiles.php%3Ffile%3DCAR12_41_992884796.pdf&ei=I9VCUpaZEaTG4gSrlIHgCA&usg=AFQjCNH6Bt_1NC60bFh5SfQGL_zfYIkmKA&bvm=bv.53077864,d.bGE, 25.09.2013.

Tanzania Petroleum Development Corporation, Model Production Sharing Agreement, http://www.tpdc-tz.com/MPSA%20_2008.pdf, pg. 73, 1.08.2013.

Ghandi, Abbas, Lin C-Y Cynthia, “Oil and Gas Contracts around the World: A Review, 1 May 2013, http://www.des.ucdavis.edu/faculty/Lin/service_contracts_review_paper.pdf, 25 September 2013, Page 2, Para 1, 3.08.2013.

Palmer, B and J, Andrew, “Tanzania announce 4th Offshore Licensing Round”, 31st May 2013, http://www.lexology.com/library/detail.aspx?g=1a22517c-bee1-419a-8d1b-c433db25f055, 28.09.2013.

IIED, “How to scrutinize a Production Sharing Agreement, Putting the PSA into context, an introduction to Kazakhstan’s oil and gas industry”, http://pubs.iied.org/pdfs/16031IIED.pdf, Pg. 13-24. 5.08.2013.

Acts of Parliament.

Petroleum (Exploration and Production) Act, Cap 150, RE 2002.

The Income Tax Act 2004, Cap 332, R.E 2004.

Gas Act, 2009.

Public Corporations Act No.17.

Other Sources.

Model Production Sharing Agreement, TPDC

Abbreviations.

LNG	liquefied Natural Gas
CNG	Condensed Natural Gas
TPDC	Tanzania Petroleum Development Corporation
TANESCO	Tanzania Electricity Supply Company Limited
TDFL	Tanzania Development Finance Co. Ltd
PSA	Production Sharing Agreements
PPA	Power Purchase Agreement
SC	Service Contracts
IOC	International Oil Corporations.
NOC	National Oil Corporation.
CIT	Corporate Income Tax.
VAT	Value Added Tax.
ST	Sales Tax.
IIT	Individual Income Tax.

1. Introduction to Natural Gas.

The use of natural gas in both liquefied and condensed form has increasingly gained popularity over last century. This has unsurprisingly been due to the shortcomings that have been revealed by other sources of energy and also due to the fact that the world is in need of supplementing the available sources of energy so that it is enough to cater for the present demands.

Natural gas has numerous advantages over the conventional energy sources. This without a doubt plays a key role in increasing its popularity. Both LNG and CNG are quite affordable compared to petroleum, diesel or coal or even electricity. Statistics show that the use of natural gas for residential appliances for example is quite cheaper to Consumers compared electricity[1]. Heating and temperature controls are additional incentives for using it in homes.

There has been a similar move away from usage of oil as a source of energy towards natural gas in the commercial arena. Presently there are about 14.8 Million vehicles that use it as a means of generating power[2]. Alongside the cheaper costs of using it as fuel, natural gas usage has been commended for its characteristic of emitting about 25% less greenhouse gas compared to petroleum and diesel. Environmentally therefore, natural gas is proved to be more advantageous than other sources of energy too.

The main drive however for a country like Tanzania in looking to speed up its exploration and production and overall development of the natural gas sector is among other reasons based on the fact that it can cater for the energy gap between the demand and supply of electricity. This gap has led to electricity shortages due to the present sources of power generation being limited. This again is due to various causal factors.

It is no surprise that such a natural resource is in high demand for various reasons. Countries that are fortunate to possess such a resource are in a position of generating an awful lot amount of revenue from it. Tanzania, is one of the countries fortunate to be in possession of this resource.

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[1] Natural gas, Residential uses, (undated), http://www.naturalgas.org/overview/uses_residential.asp, 5th September, 2013 (Author unknown)

[2] Natural gas vehicles, (undated), http://www.afdc.energy.gov/vehicles/natural_gas.html, 5th September, 2013, (Author unknown)

And as one might put it, it can be quiet exciting for the Government and its people of course to be blessed with such a resource as a lot of economic challenges can be solved by it.

In this chapter, we will be assessing the brief history of how the natural gas sector has evolved in Tanzania. We will look at the different Companies that have pioneered the investment activities in this sector and were they currently stand. There will be a brief mention of electricity production related to the natural gas resource as well and this is unsurprisingly so because the natural gas sector was developed among other reason to deal with the electricity supply deficiency that the country faces.

1.1 Brief History and current position.

Tanzania has not had a very long history of Natural gas exploration. Unlike other areas as Russia and Kazakhstan were geological surveys commenced during the late period of the 19th Century, it took a few more decades for natural gas to be discovered in Tanzania. The discovery of Natural gas in Tanzania occurred in the 1970's in Songo Songo islands, following the discovery, there had not been many surveys done in relation to the discovery. Though it is speculated that various factors such as the then current political reign and also the non-readiness of the country played a significant role in the delay, it is difficult to state with certainty why there was almost a 20 year gap between the times of discovery of the natural gas to when several projects where launched in relation to it. Various projects connected to this discovery were not underway until during the 1990s.

1.2 Songo Songo Islands.

The Songo Songo islands are located 15km from the coastline on the Southern part of Tanzania near Lindi Region. Currently production processes are being carried out in the Islands in addition to the processing and subsequent transportation activities of the gas from the islands to areas where it is then used for various purposes, the main being generation of electricity.

As previously stated, the initial discoveries of natural gas took place on these islands in 1974. However geological surveys and the preliminary activities did not commence until 20 years later. The Government through TPDC had decided to venture into an agreement with Ocelot International Inc, as it was then, for the exploration and production of the natural gas. This move was triggered by the increasing demand of electricity in Tanzania at the time which could not be

catered for by the conventional hydroelectric power. It took another 10 years however for production to kickoff. Because of the inadequacies in infrastructures in the islands for production there also had to be a lot of investments by several stakeholders in the development of these infrastructures. The main sponsor of the project was AES Sirocco of the US, Pan African Energy, TANESCO, and TPDC, UK investor CDC Group plc, TDFL, the European Investment Bank and the World Bank through the Tanzania Government[3].

Ocelot International Inc commenced production activities in 2004. Shortly thereafter, it underwent ownership changes so that the gas production process was conducted by Orca Exploration Group Inc. Orca Exploration Group Inc has a wholly owned subsidiary known as Pan African Energy Tanzania. Both Companies conduct their production activities on the Island.

1.2.1 Orca Exploration Group Inc.

Orca Exploration Group Inc. operates several on shore and off shore wells for the Songo Songo Islands. Currently it is working under a license granted on behalf of TPDC for an area covering 41,630 acres. Following production activities some of the gas is subsequently marketed and sold by the Company to several users. This is the lion share of the total production amounting to 684 Bcf of the production. The remaining share is allocated for use by Songas limited which proceeds to process the gas on its plants that are located on the islands as well.

The relationship between Orca Exploration Inc and Songas Limited exists due to a PSA that exists between TPDC and Orca Exploration Group Inc. TPDC being a State Corporation is focused more on ensuring that the Country has the opportunity to retain as much natural gas as possible for solving the electricity shortage problem. Because TPDC is connected to Songas Limited, the Company and its wholly owned subsidiary, Pan African Energy are required to sell the surplus natural gas to Songas Limited, which as we shall shortly see possesses a power plant for electricity generation in Ubungo Dar es Salaam[4].

[3] Songo Songo Gas Development and Power-Generation Project, Tanzania (undated), http://www.offshore-technology.com/projects/songosongo/, 7th September 2013.
[4] ibid

1.2.2 Songas Limited.

The idea behind the formation of the Songo Songo gas project was conceived around the 1990. Following this, several steps had to be taken to bring this idea into reality including the coming into force by several stakeholders both national and international in establishing the infrastructures needed for the undertaking of this project. The formation of Songas Limited is one of those steps. Songas Limited is a hybrid owned Company that began its operational activities in 2004. The ownership of Songas Limited is both from foreign investors and domestic investors. TPDC, TANESCO and TDFL are the different state owned Companies that are part owners of Songas Limited. The majority Shareholder however is Globeleq which bought its majority shares in 2004. Songas also has additional set of international stakeholders including the World Bank and European Investment Bank through loans given to the Government of Tanzania. There are therefore different organizations, both national and international which influences how Songas Limited carries out its work. It is safe to say however that foreign investors are more in control here.

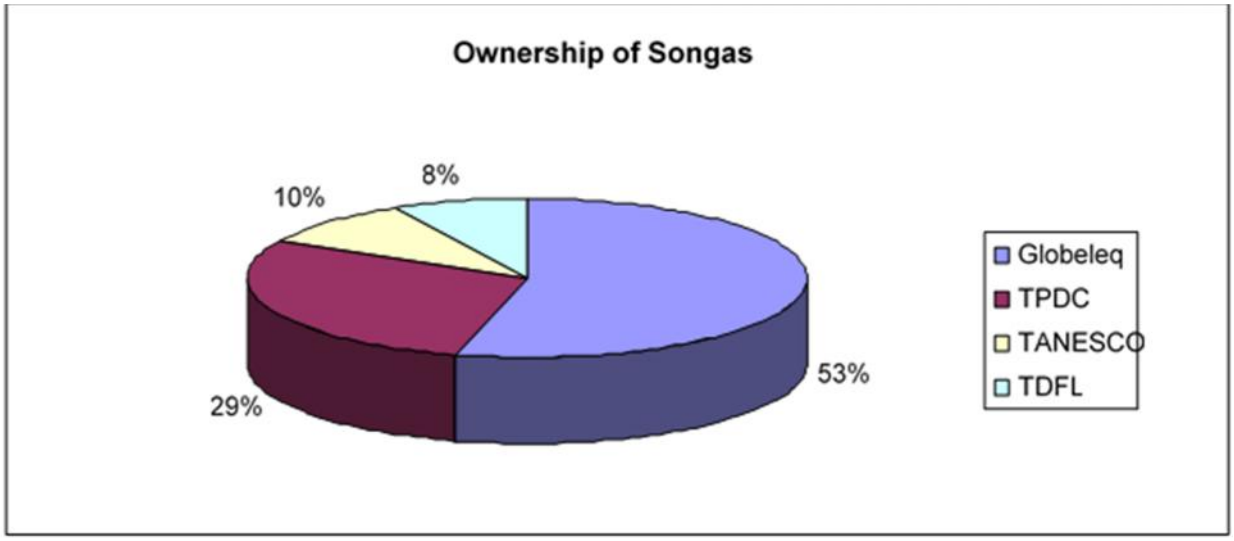

Figure 1. Songas ownership structure. Source: Songas Limited.

It is important that we study the activities ran by Songas Limited at this juncture in order to understand the starting point and the moves taken by the Government to try and develop the natural gas sector as a means of eliminating the ongoing shortages of electricity generation.

After Songas Limited was formed the gas to electricity project was conceived with it. The integrated gas to electricity project oversaw that Songas Limited is centered at transforming the available natural gas produced by Orca Exploration Group and other Companies to electricity. This is possible because in addition to owning the processing plants that are in Songo Songo Islands, it also owns a power plant located in the Capital Dar es Salaam.

As previously mentioned, the project commenced its operation in 2004 where Songas Limited had completed the construction of the processing plant in Songo Songo Islands and the power plant in Ubungo, Dar es Salaam. The plant was designed to process approximately 70 smcfd (enough for around 300 MW of power to be generated from it once the electricity generation had come to a completion at the power plant located in Dar es Salaam.

Before the gas is transported to Dar es Salaam however it is transported initially along a 25km, 12in pipeline from Songo Songo Islands to the mainland at Somanga Funga, which is still located in Lindi region. In Somanga Funga there is a TANESCO station where part of the transported natural gas is left. The station has the necessary machinery and equipment which makes use of the natural gas to generate electricity. The power plants in Sumanga Funga is relatively small compared to the ones located at Ubungo, Dar es Salaam. But the idea of constructing station at Somanga Funga was so that the residents close to the where the natural gas is explored and produced get a firsthand advantage over the other parts of Tanzania. The station is able to produce about 7.5MW of electricity where only 2.5MW is currently used[5]. In this way, the Government has managed to positively tackle the electricity shortage problem in the Southern regions of Lindi and Mtwara by a long-term solution. And rightfully so because the whole movement of the Government towards exploring the potentials brought by this new sector was to eliminate the current faced difficulties caused by electricity shortages.

From Somanga Funga another gas pipe now travels to Dar es Salaam. The 16 in pipeline is laid down 207km to Ubungo, Dar es Salaam were it meets the other power plants, this time owned by Songas Limited.

[5] Ministry of Energy and Minerals, Notice to the public: How Mtwara and Lindi and benefit from the natural gas, (undated) http://www.tpdc-tz.com/Lindi_mtwara_gas.pdf, 8th September 2013

Ubungo Power station has the capacity of producing 190MW. This makes it one of East Africa's largest power stations in electricity generation consisting of 6 aero derivative gas fired units. The consumption of Gas is said to be around 47mcfd-. - 2 ABB 4 * GE, Consumption of Gas around 47mcfd- plant efficiency in the high 30s% with an average availability of about 90% was produced in the year 2012[6].

Songas Limited has now entered into a 20 year PPA with TANESCO to solely supply it with the produced electricity. In addition to this, as earlier mentioned, the gas sold to Songas by Orca Exploration Inc. and Pan African Ltd is governed by a separate gas agreement that ensures that there is more supply of the natural gas raw material to Songas Limited for the generation of electricity. Songas Limited is able to generate more revenue through payments by its suppliers which use its infrastructure for transportation of the natural gas.

The 20 year PPA runs at a Capacity Charge of 350 USD/kW year and Energy Charge of 1.1 $c/kWh. Lifetime tariff for Songas project is about $0.56/kWh, considerably less than HFO and very close to Coal and Hydro[7].Because of the operation ran by Songas Limited and the PPA agreement, the electricity generated is able to supply about 25% of the total power needed. Compared to other suppliers, the tariff set out by Songas Limited is by far the cheapest in Tanzania.

The existing framework allows for exploration Companies to supply Songas Limited with the necessary raw material for the production of electricity. Additionally the 20 year PPA binds Songas to continue with supplying its gas to TANESCO only for the whole duration, means that again the Tanzania Government is moving towards the right direction in solving the electricity shortage problem facing the country.

1.3 Mnazi Bay.

Mnazi bay was discovered in 1982 a couple of year after Songo Songo Islands were discovered. It is located approximately 250km south of Dar es Salaam. The discovery was done by drilling Mnazi Bay 1 well at Msimbati which is located around 27km south east of Mtwara town. The feasibility

[6] Songas Limited, Who owns Songas. (2012), Power point presentation, Slide 8.
[7] Ibid

study for the use of the gas for electricity generation was however done in 1994 and developmental processes begun going underway.

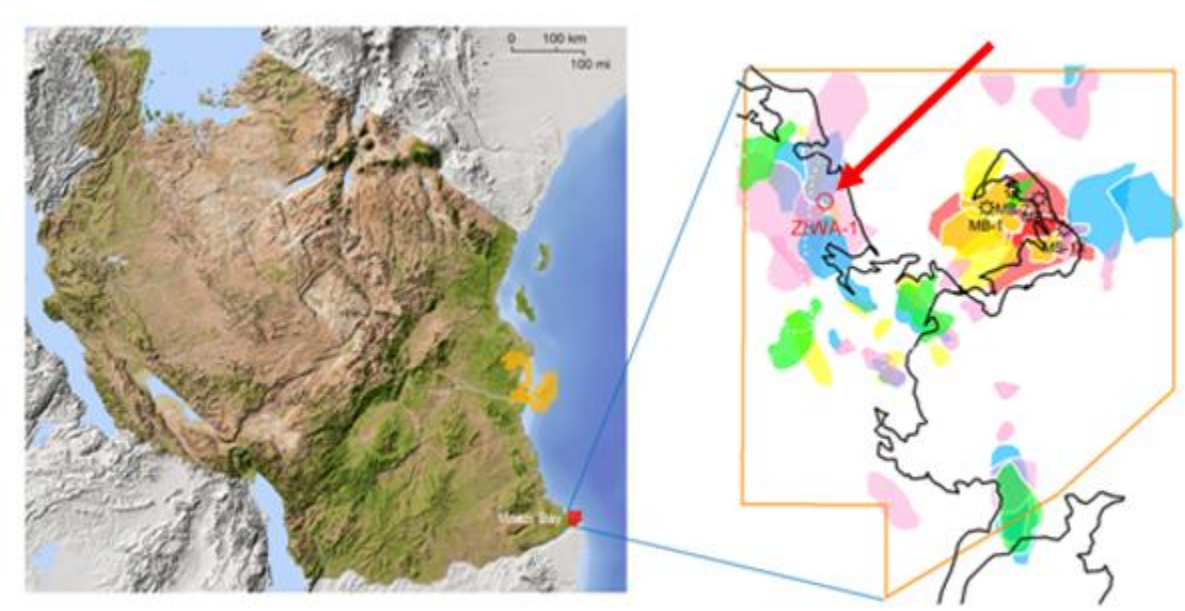

Figure 2: Mnazi bay location in the Southern part of Tanzania. Source: Wentworth Resource Limited.

Like the case of Songo Songo islands, this discovery was seen as a positive move by Government to try and deal with the electricity shortage by making use of the gas discovery.

At the time, this project was centered solely at providing electricity to Mtwara and Lindi regions. The electricity generated was therefore not connected to the national grid at all so that all the electricity resulting from the natural gas production is used by the southern regions solely for their consumption.

Before the operation of the project, the Government called out for proposals from investors. Although the drive was there, there were no resources necessary to get the project underway. Several investors brought forward their proposals and by 2004, the Contractor Artumas entered into a PSA with the TPDC on behalf of the Government. The contractor injected an initial capital sum of USD 20Million and of course continues to provide the necessary finances like all investors. Under the PSA, the contractor also agreed to develop the gas fields. This entails the development,

construction and operation of the gas treatment plant at Msimbati area. Additionally there will be power generation, power transmission and distribution.

Following the completion of the infrastructure. The pipeline was laid down from Msimbati to Mtwara mainland with 8.9km marine pipeline and 18.1km land pipeline. Furthermore there were installations of turbines at Mtwara which are able to produce 16.5MW of electricity. Commercial operations began by late 2005 where the electricity tariff is set at $8.25/kWh. This gas- electricity project seems to be fairly on quiet well with the regions in Mtwara and Lindi being guaranteed the availability of electricity.

Following this development there have been a number of new discoveries near Mnazi Bay. Various foreign investors have come in to try and make use of these upcoming opportunities. Among these is Wentworth Resource, a company which owns and operates a gas processing plant, pipeline system, and gas-to-electricity production facility in Mtwara, Tanzania. Wentworth went on to build two gas processing plants, 27km of 8 inch pipeline, and an 18MW gas-fired power plant. Wentworth Resource is now working on a partnership with Maurel et Prom both having exploration interests on the block.

These partners have now entered into a lengthier agreement with the Government to construct a gas pipeline from Mtwara to Dar es Salaam. The construction has recently began and upon completion this will also be a huge positive step towards the use of the natural gas resource to benefit Tanzania through the gas electricity project.

1.4 Other on shore and deep sea natural gas discoveries.

In 2007, the Mkuranga-1 well had revealed the presence of gas in the Ruaruke formation (Cretaceous Superior) 2030m deep. During the isochron tests, the well has shown a constant flow of 19.2 million cubic feet per day on a 48/64 inches choke with a top pressure of 1 465 psi during a 4-hour period. These parameters are currently being assessed on a longer period. The drilling site

is located 5 km from the gas pipeline to Dares-Salam, giving direct access to the Tanzanian gas market[8].

Additionally two other gas fields namely Kiliwani Gas Field and Ntorya Gas Field had been discovered. Both are located around the Southern part of Tanzania the latter being 35km west of Mtwara. The discoveries were done in 2008 and 2012 respectively. The plan by the Government is now to link up these gas fields to the currently constructed gas pipeline mentioned above so that there is maximum usage of the discovered natural gas to tackle the electricity problem in the country and also secure a much bigger supply of the natural gas from the Southern part of Tanzania to Dar es Salaam were it can supplied to more users.

There have been further discoveries in the recent years of more deep sea natural gas sources near the Sothern part of Tanzania. The first discovery was at Pweza-1 Well in Block-4. The drilling being done by Ophir. Ophir is also responsible for other drilling activities and subsequent gas discoveries.

The Mkizi-1 well was drilled by the Deepsea Metro I drillship and was located in 1,301m water depth, between the Mzia and Jodari discoveries in Block 1. The well encountered gas pay in three reservoir intervals within a Tertiary aged stacked channel complex[9]. The Deep-sea Metro I drillship will now move to drill two appraisal wells, including a drill stem test (DST), on the Pweza discovery in Block 4.

Having accessed the current natural gas sector state, it is safe to say that the industry is growing at a very rapid rate. More investors are looking to come in to try and make use of the opportunities that are present in Tanzania. Currently there are approximately 17 wells that have been drilled with successful discoveries.

[8]Maurel & Prom Announces Success of the Mkuranga-1 well, Tanzania, (Author unknown), 16th January, 2013, http://www.gulfoilandgas.com/webpro1/MAIN/Mainnews.asp?id=4005, 9th September 2013.
[9]BG-Ophir hit gas discovery offshore Tanzania, (Author unknown), 30th July 2013, http://www.ogj.com/articles/2013/07/bg-ophir-hit-gas-discovery-offshore-tanzania.html, 9th September 2013.

Table 1:

Expected Drilling for 2012/2013. Source: Minister of Energy and Minerals presentation, Chatham House, London, 26th February 2013.

Operator	**License**	**No. of Wells**
Maurel et Prom	Mnazi Bay	1
Statoil	Block 2	3 with one in progress
Ndovu	Ruvuma Licence	2
BG	Block1	3 with one in progress
Dodsal	Ruvu Block	1
Heritage	Latham	1
Dominion	Block-7	1
Afren	Tanga	1
Ophir	E. Pande	1
Petrodel	Kimbiji	1
Hydrotanz	Mnazi-Bay	1
PanAfrica	Songo Songo	1
	Approximately	17

What this means therefore for a country like Tanzania is that her Government must be very ready to make the most out of the investments coming in. There is no doubt that investors come in to develop and furnish the Government with assistance in capital, technology and the expertise required to engage in the exploration and production processes. In this way investments are a very vital for any developing country like Tanzania to assist it in making use of its resources to generate revenue and achieving the development goals it has set.

Investments usually involve negotiations between the investor and the host country that looks to gain from the investment. The investor on one hand looking to venture into a business and make profit like any other person. On the other hand the host Government which is the owner of the natural resource such as natural gas which is the subject of the investment. The host Government

has to make sure that it widely benefits from the possession of such resources and increases its revenue as much as it possibly can.

Russia possess almost the largest natural gas reserves in the world. It depends on the natural gas as the biggest source of revenue for the Government. And rightfully so, Russia has managed to develop its economy with the huge help of its natural gas and oil resources. Tanzania could and should aim to do the same. This however can be done only through proper legal and regulatory mechanisms set by the host government to make sure that it eliminates all loop holes that might be present in their system which could reduce the opportunities that the Government might have on gaining revenue from the investment. Similarly because most natural gas agreements are governed by contractual relations between the host government and the investors, the only means by which the State can safeguard its interests in such contractual relations is if the State sets up a proper legal framework under which these relations will be governed.

2. Current Legal Framework.

Having looked at the brief history of the Sector since it came into existence, we can appreciate that a lot of activities have taken place to date. These activities have without a doubt been regulated by certain instruments that set out the rights and obligations of each party involved in the contractual relation. In this chapter we will be analyzing the current regulatory instruments associated with the natural gas sector. In some occasions we will be accessing the extent that these instruments fulfill their task of properly regulating this sector and discussing why this is so.

To date, Tanzania lacks a legislation that is solely centered at regulating the Natural gas resource and Sector. A legislation that would be focused on regulating the exploration and production activities, mid-stream and pipelines, gas storage, trading and refining etc. This is quiet unfortunate for the Country that has commenced activities in relation to the sector almost over a decade ago, where various activities related to exploration, and production have been underway. There are other legislative frameworks that are present as we shall see shortly. But none of them were solely enacted for the natural gas sector regulation. This automatically leaves doubts in one's mind as to the extent in which the Country is able to fully protect its interests to the maximum given the absence of a detailed Act that centers on this sector alone.

2.1. The new Gas Policy.

The Government however in late 2012, taking into consideration that Tanzania was and is continuing to gain more popularity in relation to investments, (reference to table 1) through the Ministry of Energy and Minerals produced a policy draft in the route towards the creation of the natural gas legislation. The first draft was reviewed by the Parliament and several suggestion were given. In June 2013, a revised policy was submitted again by the Ministry of Energy and Minerals.

The policy is said to cover the following objectives in relation to the natural gas sector. Firstly the Government will look to promote a sustainable market for the natural gas in the domestic market. Additionally the Government will actively participate in the natural gas value chain. And thirdly the Government will set forward a conducive environment that will be able to see the natural gas sector grow and meet both national and international growth.

The current policy in our opinion seems to touch on some very key areas that if proceeds to becomes law will greatly participate in strengthening the regulations in the natural gas sector.

Although some mentioned factors are not very clear, and the wait is long overdue, this start is not a bad one.

The policy stipulates that there will be development of natural gas infrastructure by the Government. The Government will take an active role in participating actively in the establishment of these infrastructures through the National gas Company. Because the National gas Company is inexistent, and all the activities related to natural gas were coordinated by TPDC, it seems that the Government has decided that now is the right time for the establishment of the National gas Company which could properly monitor the natural gas activities. It however is not known how the purported Company will link up with TPDC. Whether the obligations bestowed on TPDC will now be completely shifted to this National gas Company or whether the two bodies will work simultaneously. This is something we have to wait to find out about.

The policy also stresses on the need for the development of the domestic market. This would give more Tanzanians the opportunity to add supplement sources of energy with the produced natural gas. This would be very advantageous to the Tanzanian community because of numerous previously discussed reasons. Natural gas is more environmental friendly and cheaper among other reasons. In developing the domestic market, the Government is going to establish an aggregator which will be a subsidiary of the established National gas Company. This national gas aggregator will facilitate the efficiency and reliable supply of natural gas in the country for users in the domestic market. This would therefore reduce the workload of the purported national gas company which will inescapably be huge. The division of the task of ensures efficiency in the supply of the gas in the domestic market. It ensures that the National gas Company is not bombarded with too much to do and run the risk of it discharging its duties undesirably. The subsidiary Company can be expected to properly regulate the domestic market as per the policy.

The policy has managed to also the touch upon the local community as well. The policy states that the local communities which are in possession of the natural gas resources are supposed to directly benefit from the revenue generated from the natural gas. This means that the revenue obtained will be directly linked to the local community to develop their social and economic necessities. This move by the Government was somewhat expected following the recent outbreak of chaos by the residents of Mtwara region who have been condemning the Government for deserting that part of Tanzania despite the huge amount of investments that have been done for several years since the

resource was discovered. Violent demonstrations erupted in Mtwara late May 2013 after Prof. Sospeter Muhongo, the minister for Energy and Minerals, announced in Parliament that construction of the Mtwara to Dar es Salaam gas pipeline would continue according to plan[10]. Perhaps the management of the natural gas revenue plan set forth in the policy will be a solution to these vehement protests by the local residents. The implementation of this policy and whether it will take place is something that will have to be seen.

The policy also touches upon the exportation issue related to the natural gas resource. It sets the necessary pointer that exportation must only be considered once the domestic market is properly catered for. The idea behind this provision is brought about by the need to make sure that the natural gas home users are attended to first before there is even a thought of considering the foreign users and exportation.

There has also been a mention about using the opportunities that come in with investments to develop the local Tanzanians. Focus should also be on capacity building so that there are more Tanzanians with the required skills in the field. Similarly, the natural gas sector through this policy will aim at paving way for the development of other related strategic industries for the benefit of the country's economy as a whole. These will include the petrochemicals, steel and other energy intensive industries.

Finally the policy mentions the aspect of corporate social responsibility. Briefly what this entails is the need for corporations in this case investors which carry out their activities in several parts of the Tanzanian community to actively take part in the development of these communities. This would mainly be on the social level. The development of social aspects of the community would be impacted for example through the educational system and the health system. This aspect of corporation social responsibility can be easily linked up with the previously mentioned need for developing the local communities so that they are direct beneficiaries of the growing natural gas projects.

The policy as previously stated, seems to be touching upon many key features that ought to be rightfully addressed in the long awaited for legislation. But like all legislations, that are usually

[10] Bakari, Abdallah et al, "Chaos hits Mtwara after gas project confirmation", 22 May 2013, http://www.thecitizen.co.tz/News/-/1840392/1860180/-/ewg3dez/-/index.html, 11 September 2013.

properly drafted, implementation of the same is the aspect that usually receives the highest level of criticism. It is best to refrain from commenting now on how well the policy once becomes law will affect the natural gas sector, however it is safe to say that the policy have properly touched upon most of the necessary areas.

With that said, it will at least take a year or two before this policy becomes law. It is best therefore to set it aside for now and focus on the current legislative instruments associated with this sector.

2.2 Legislative instruments governing the natural gas sector.

In 2009, *The Gas Act 2009* came into existence. Although the Act had touched upon some of the key areas that ought to be regulated ranging from production, transportation, storage etc., of natural gas, the Act in my opinion lacks clarity with several sections in Act either having omissions, repetitions or ambiguous phrases. Furthermore this Act did not in our opinion follow the right procedure as any legislative piece. We say this because there were not preparations of a policy by the respective ministry of Energy and Minerals, let alone being presented in the Parliament for discussions and reviews as all other Acts of Parliaments do. The application and scope of this Gas Act remains highly restricted because of its inadequate provisions and unsurprisingly so, this has paved way for the need for a new Act of Parliament that is centered on regulating this Sector. The new gas policy discussed above is expected to do just that.

Tanzania has been exploring and producing petroleum oil for over three decades now. As it can be expected, the oil sector activities is regulated by *The Petroleum (Exploration and Production) Act 1980* (herein referred to as the Act). As the name suggests the legislation is was mainly enacted for the oil industry in Tanzania, particularly petroleum. However because of similarities between the two industries i.e. the oil industry and the natural gas sector, some of the provisions in the Act have been used in several activities carried out by the Ministry of Energy and Minerals and TPDC respectively to apply to the natural gas sector as well. The Act is currently the main legislative instrument that governs investments in the natural gas sector.

The main provisions of the Act will be accessed here so that we are able to shed light on the procedural requirements set forth by the Act for investors wishing to conduct businesses in the natural gas sector.

Section 4 of the Act categorically states that the petroleum found in the land is vested on the State. This means that when an individual or corporation is given a license under the Act, the individuals or corporations are licensees of the land for a particular period of time and after the lapse of that period, the land returns back to the ownership of the State.

The Act provides for the establishment of a state owned company named TPDC. TPDC Is the Tanzanian State Corporation through which the Ministry of Energy and Minerals implements its petroleum exploration and development policies[11]. The Tanzania Petroleum Development Corporation was established under the *Public Corporations Act No.17* through the Government Notice No.140 of 30th May 1969. The Corporation began operations in 1973[12].

Licences are generally covered in Part II of the Act. Section 13 of the Act states that licences will only be granted to a Tanzanian individual and corporations that have been lawfully incorporated under the Laws of Tanzania. Investors' Companies usually therefore have to incorporate their foreign companies again in accordance to the Laws of the country before starting the application process for the attainment of the licences. This is a good strategy by the Government to favor the native Tanzanians by increasing the opportunities for them to get control over their own national resources.

Section 14 of the Act paves way for the agreements that can be entered into by the Minister of Minerals and Energy on behalf of the Government and another individual, with respect to the granted license. This section seem to be the applicable section that allows for the entering by the Government of PSAs between itself and the investors. PSAs as we shall see contain more details with respect to the investment and will be governed by the provisions of the Act

Section 15 of the Act provides that the applications must be made to the Minister of Energy and Minerals or in certain cases the Commissioner of Petroleum Affairs in a prescribed form that is approved by the Minister. The Minister is allowed under Section 16 of the Act to ask for additional information in relation to the applying Company. The Minister may additionally require that he be furnished with information that would enable him to ascertain the extent of control that the

[11] Tanzania Petroleum Development Corporation, About us, (undated), http://www.tpdc-tz.com/tpdc/About_Us.php, 12 September 2013
[12] Ibid.

controlling power whether directly or in an indirect form, a company incorporated outside of Tanzania has over this company making an application in Tanzania.

Section 19 and 20 of the Act provides for exploration licences. The Ministry will go on and produce a notice of invitation on the gazette followed by which the investors will be allowed to make applications for exploration licences. It is stated that applications can be made in respect to one block or several blocks. In case the application is for several blocks however the blocks must not exceed sixty blocks. The application for this license must be accompanied by proposals for the work and the minimum expenditure that Prospective licensee expects to spend once given the license. The applicant must also furnish the Minister with all technical and industrial qualifications that the applicant and his employees possess. Additionally the applicant must furnish the Minister with all technical and industrial resources that it plans to make use of in its operation of exploration of the petroleum and in our case natural gas. The Ministry must additionally be informed of all financial resources including capital, credit facilities and guarantees that the applicant possesses and expects to use in the exploration process. The applicant must explain by way of proposal the means by which she/ he expects to train and employ Tanzanian citizens during the carrying on of his activities.

Finally Section 20 of the Act provides for the extension of the area that the applicant can be granted. The number of blocks that can be granted have been added from 60 to 200 blocks, however the blocks can be granted only when there are special circumstances in which the Minister deems fit to do so. This two named Sections seem to have covered various important issues that are paramount in the choosing of licensee to conduct the exploration of the Petroleum and in our case natural gas. It would be important to sieve those investors that do not possess the necessary expertise or other resources and avoid the misuse of State's resource to the advantage of the investors only. It is worth noting however that the Minister is vested with powers to grant licences for blocks in addition to the named 60 blocks. The Act just states that the Minister will do so whenever there are special circumstances that warranty the granting of additional blocks. The Act is however silent on what these special circumstances may entail and leaves doubts to the criteria that maybe used to grant the additional blocks by the Minister. It would in my opinion, and based on the sensitivity that is attached to this sector be best that the criteria that would be used in granting

additional blocks be mentioned to enhance more transparency in the application and selection process.

Section 24 of the Act provides for the rights conferred to the licensee with regards to the exploration area. It proves that, the licensee is conferred exclusive right to explore the area which she/ he has license over and carryout activities necessary for the purpose of exploration. What this simply means is that during the period were the license is valid, the licensee can do all activities related to the land as though it is their own property. During this point, the ownership rights are totally vested on the licensee.

Exploration licences are granted for an initial period of four years. If need be, the applicant can make a further application for the first extension of the exploration period and be granted another four years. Finally the applicant is allowed to make the final applications for the second extension and can be granted another 3 years of conducting exploration activities. The Minister is allowed by the Act to refuse the granting of a further extension if there has been a default by the licensee in respect to the terms under the agreement. The following provision of the Act provides though that the same Minister can regardless of the default by the licensee grant a further extension to the licensee in special circumstances. These circumstances again are not specifically mentioned. The decision is therefore left solely left at the discretion of the Minister. In the case of refusal however of grant of an extension by the Minister. The Minister must give notice to the licensee of the Ministers' intention of not extending the investors' license. The Minister must of course give reasons as to why there was such refusal.

The Applicant when applying for an extension must present detailed information regarding the place that has been explored. Section 26 of the Act provides that this should include inter alia the work that had been done during the first licensing period. The expenditures used by the licensee etc. This helps the Minister to evaluate the already completed work and access during the first four years the work done by the Licensee.

Finally, the Act provides that there is a duty by the applicant to submit to the Minister an adequate program with respect to work and expenditure carried out or made in every year during the lifetime of the license. This as a general provision, again helps the Minister keep up with the ongoing activities at all times during the said period. This program must be submitted one month before the anniversary date.

The Act proceeds to state the necessary steps that ought to be taken by the applicant upon discovery of the petroleum and in this case the natural gas. The Act provides that the licensee must immediately inform the Minister of this discovery and wait for the necessary instructions that would follow thereafter. The Applicant should also ascertain the quantity of the discovered petroleum through carrying out several works related to the discovery. This would include investigational work on technical and economic feasibility. Works related to environmental impacts with respect to the discovery, labor requirements etc.

Development licences are also touched on by the Act under Section 35. The section provides that the licence can be applied for during the term of the exploration period. The Act provides that the applicant will not be granted developmental licences unless the applicant will ensure that there will be the most efficient and timely use of the petroleum found so that maximum profit can be realized from the developmental process. The licence will also not be granted to the applicant with no adequate financial resources. Furthermore, the applicant who has not complied with the necessary conditions which the previous exploration license were granted under, and has not for example, carried out the respective proposal that was submitted to the Ministry with respect to the employment and training of Tanzanians shall be restricted for applying for the said development licence.

When granted a development licence, the licensee will have exclusive rights to carry on exploration operations and development operations. The applicant will also have the right to sell or otherwise dispose of the petroleum recovered. It is further stated that the applicant is allowed to carry on any incidental activities that come in line with the development process.

The development licence is initially given for a duration of 25years. This period can be further extended for another 25years upon the request of the licencee. The licencee will be granted an extension in this development period only if the Minister is satisfied with the proof of work that has already been carried on. These attachments must be sent together with the applicant's application for extension just as it was in the exploration licensing extension.

Finally the Act provides that applicant's rights and obligations are generally not transferable to any third part. The licensee therefore remains the bearer of all rights and obligations during the course of the licensing period. Any transfer is deemed void ab initio.

Generally and theoretically the Act seems to touch on all significant areas related to the exploration and development licences given to investors who participating in the natural gas sector in Tanzania. Apart from the few questions that we raised in relation to clarity of some of the provisions, the Act provides a great framework that allows the Government through the Minister to scrutinize the investing Companies and make sure that the activities are carried on well for not only the benefit of the Investors but importantly for the benefit of the country.

The natural gas sector is also regulated by the Income Tax Act, 2004 when it comes to the taxation and royalty that has to be paid up the investors carrying out the activities under this sector. Over 321bn/- in value added tax (VAT) has been collected by the government in the past seven years from natural gas extracting companies and manufacturers using the resource[13]. The natural gas sector like the mining and petroleum sector under the Income Tax Act 2004 are covered under the natural resource category which is taxed for under its own respective category. The VAT, income tax and stamp duties are the most common form of tax charged. Some additional taxations are provided for under separate agreements that the Companies enter into with the Government. An example of such a tax will be seen shortly.

Apart from the above mentioned Act of Parliament that regulate the natural gas sector, the Government has adopted another form of regulatory mechanism under the Gas Sector which like the Acts of Parliament plays a regulatory role as well. This mechanism is what is known as the production sharing Agreements.

2.3 The Production Sharing Agreements.

The PSA is the agreement that is entered between the Government of Tanzania represented by TPDC and the investor's Company on the other. As referenced in the Act, it is TPDC that is granted the license by the Government under the Ministry of Energy and Minerals. After being granted the licence, TPDC will now hold the licence of behalf of the investor's Company which will proceed with the respective activities of exploration and development.

In the course of our discussion, we shall assess how PSAs are meant to work generally. We shall assess both the positive and negative aspects related to them whilst at the same time juxtaposing

[13] Abdu, Fatma, Tanzania: Natural Gas Extracting Firms Contribute Sh321 Billion in VAT, 20 July 2013, http://allafrica.com/stories/201307221400.html, 13th September 2013.

this form of agreement with other forms. For now however, let us analyze the Model production sharing agreement released in 2008, (Herein after referred to as the MPSA 2008) by TPDC as it represents the PSAs signed by the Government and respective Investors in the natural gas with respect to Tanzania.

The MPSA 2008 covers both oil and natural gas dealings in Tanzania. It stipulates the right and obligations of both parties to the agreement and once executed has the binding effect as any other contract. Breaching the provisions under the MPSA by either party of would result to legal actions as agreed by both parties.

Once an investor has met, negotiated and agreed with TPDC of its intentions to carry out the necessary exploration or development activities in Tanzania, the PSA comes into force immediately. TPDC is required within 30 days of the agreement entering into force to apply to the Government for the exploration or development licence which will be granted by the Government according to the Act. The MPSA requires that the investor furnishes TPDC with the necessary particulars regarding the investment activity it wishes to carryout similarly to the provisions under the Act (as previously discussed under Section 20) of the Act). This is so that TPDC can be able to meet the necessary requirements as stipulated under the Act. Because as already stated, it is TPDC that is granted the license under the Act, therefore as a licensee it is required to comply with the provision of the Act. Additionally the MPSA provides that where the investor has asked TPDC to request for an extension of the exploration licences, they must furnish TPDC with details of selected blocks that they wish to carry out their activities and how they propose to do the same.

The MPSA goes on to provide details entailed in the exploration program. The investor after signing the agreement with TPDC must commence activities within 90 days of the agreement being signed. During the initial exploration period the MPSA stipulates the activities that must be carried out by the investor. During the first two year sub period, geological and geophysical activities must take place. After this, the following second two year sub period will involve the drilling activities. The MPSA explains in details what must be done by the time the investors seek out the first extension period and the second extension period through TPDC from the Ministry of Energy and Minerals.

It is also provided under the subsequent Articles in the MPSA that there is a duty by the investor to submit an annual work program budget to TPDC of the activities they plan to carryout in the

calendar year at a given time frame before the commencement of the activities. The program will be subject to the advisory committee of TPDC which will access the program and ask that it be rectified or grant approval of it. TPDC will subsequently submit it to the Ministry of Energy and Minerals. In case of any errors in technicalities or other errors committed by TPDC during the course of the licensing period, no suspension or cancellation of the license can be permitted so that the rights of the investor are affected in the process. This provision properly protects the rights of investors in case there is any type of negligence by TPDC. The investor's Company should not be made accountable for the negligence done by another.

In relation to operations being carried out, the MPSA highlights three options that maybe applicable depending on the agreement entered between the parties. The first case could be that all costs are borne by the investor during the exploration stage and the costs can be recovered by the investor later during the development stage. The second case is when TPDC actively participates in the expenses of the project by 25%. This however can only be during the development stage and not during the exploration stage. This is a smart move by TPDC and the Government because during the exploration stage there is still a risk that the natural gas might not be discovered. Subsequently TPDC would not be able to recover from the expenses incurred. TPDC alternatively can enter into joint operations with the investor. Again TPDC will only contribute in the expenses other than the exploration expenses. However the investor remains the sole operator of the activities, under properly definite rights and obligations. The investor will carry out all operations which must be approved by a Joint Operating Committee. Both investor and TPDC will have equal representation in this committee. Very few Joint operations of this nature have however been entered in Tanzania to date.

The MPSA also sets provisions that describe the annual charges that are supposed to be paid by the investor in the exploration and development licensed period respectively. During the initial exploration period the amount payable by the investor is USD 4 per square km. In the first extension period, the amount payable is USD 8 per square km and USD 16 per square km in the second extension period. During the development license stage, the annual charges are at a rate of USD 200 per square km.

The MPSA also provides for the cost recovery issue. Perhaps this is one of the focal issues in these sort of agreements. Cost recovery include costs and expenses that are entitled to be recovered by

the investor after production of the natural gas has commenced. These costs are inclusive of those that were incurred even during the exploration phase. It is logic of course for the Government to set that the investor is entitled to cost recovery only when the investor has reached the development phase because allowing the investor to recover from the Host Government despite the non-assurance that the natural gas would even be discovered is rather risky for the Government. If the Government allows the investor's Company to recover Costs before production activities commence, the Government and lifts all risk burden from the investing Company and places them on the Government instead something which might not be very desirable to the Government from the business point of view and rightfully so, the Government has been able to protect its interest on this aspect.

Examples of costs that have been set under the MPSA as being recoverable are the following: Surface rights costs, labour and associated cost, transportation costs, charges for service, material and equipment, legal expenses, training costs, warranty of material and rentals and other taxes paid by the investor. These taxes however do not include income taxes, withholding taxes or additional profit taxes.

Cost recovery is collected from the petroleum revenue that is generated in the development period. After the total revenue is collected, royalty payable to the Government is first deducted from the total amount. After deduction of royalty, the investor is now entitled to recovery costs as mentioned earlier. The amount cannot however be recovered in full. The MPSA provides that the recovery can only be for up to 50% of the total recovered oil. The unrecovered costs must be carried forward into the following calendar year where the investor can recover them. The MPSA additionally provides that there shall be no cost recovery for some activities that the maybe be undertaken by the investor during the course of the development period. These activities include costs incurred before the effective date when the PSA was signed between parties, cost incurred due to penalties and fines due to the investor's negligence, costs that arise from donations and contributions that were given by the investor and any other costs that can be said to be excessive with reference to the general oil industry practices.

Following the deductions, the remaining amount is the profit. This is what remains after the royalties and cost recovery expenses have already been deducted. The unique feature about PSAs is that the investor and the Government end up sharing the profit between each other depending

on what has been agreed by the two parties. The MPSA as shown is the following diagram portrays the agreed division between the two parties

Table 2: Profit sharing percentage: Source: MPSA- TPDC

Tranches of daily total Production. (MMSCFGPD) rates in the Contract Area	**TPDC Share of Profit Gas.**	**Investor's share of Profit Gas.**
0 - 19.99	**60%**	**40%**
20 - 39.99	**65%**	**35%**
40 - 59.99	**70%**	**30%**
60 - 79.99	**75%**	**25%**
80 99.99	**80%**	**20%**
100 and above	**85%**	**15%**

It can be gathered therefore from table 2 above that the amount of profit that becomes due to the Government increases with the increase in daily production. This is advantageous to the Government because it can generate more revenue and retain more profit with more production.

The subsequent issue covered under the MPSA is the reporting, inspection and confidentiality matters. The investor is required to maintain all current and accurate records of the activities carried out in both the exploration and development period. In addition to this the investor must also keep portion of samples of the extracted gas for the purpose of investigation by the Government whenever the need to do so arises. The investor can however freely export samples for investigation purposes when necessary.

With all the privileges given to the investors under the MPSA, TPDC at any point shall be entitled to monitor the petroleum operations conducted by the contractor. This could be assets, records, books of accounts and other data. TPDC is entitled to this right at any reasonable time during the course of the licensing period. TPDC is also entitled to copies of data from the investor whenever the need arises for TPDC to get ahold of the information. TPDC at all times shall have the right to audit the account details of the investor upon giving the investor reasonable notice of its intention

to do so. The investor is entitled under the confidentiality clause to not disclose any information attained during the course of the activities to any third party unless prior consent is sought from the Government through TPDC. This seems to cement the overriding rights that TPDC and the Government still possess in light of the investment activities.

MPSA further provides that the investor is bound by the agreement to give preference to Tanzanian goods, services and materials if the materials are of acceptable quality. The investor must make maximum use of Tanzanian Companies whenever there is a need to subcontract with other company. This provision must also be stipulated in the contracts between the investor and the subcontractors so that there is maximum advantage placed for Tanzania companies that meet the requirements to benefit from the investment. With regards to the tender activities, the local companies must be afforded equal treatment and be given access to all tender invitations like the non-local companies.

The MPSA also highlight the issues related to employment of Tanzanian as per the Act. The investor is required to employ maximum Tanzanian citizen as long as they meet the requirements for the position. In light of the employment, the investor must also provide training for the natives through various means. These would include universities, conferences and seminars, through giving employees access to books, scientific instruments, professional publications etc.

Last but not least, the MPSA provides for the issue regarding assets. Fixed assets under the agreement will become the property of TPDC following the completion of the licensing period. Other movable assets will be assessed depending on whether or not they have been recovered for under cost recovery. If they have been duly recovered for. They too will remain the property of TPDC. Site cleaning remains the duty of the investor upon the completion of the licensing period. The investor might choose to pay for this to be taken care of by TPDC through a reserve fund.

In relation to the environment, and on recognizing the importance of the conversation of the environment, the investor is expected to carry out its activities in acceptable practices so as to conserve the environment. If there are affected parties or areas that have been polluted due to the activities carried out by the investor, the investor shall be required to compensate the said people and make good the harm caused by the pollution. If it is proved that the pollution was caused by the negligence on the part of the investor, these costs will not be recoverable by the investor. Similarly the investor will undertake at its expense which shall be recoverable, comprehensive

Environmental Impact Assessment studies prior to, during and after the exploration and development activities. This is so that the Government is satisfied at all times that the activities are carried out whilst being conscious of the environment.

On the final point. The MPSA provides for no right of assignment by the investor to any other third party to the agreement.

Also in case any disputes arises between TPDC and the investor, the primary route taken shall be the one that focuses on alternative dispute resolution. If such route fails, the matter shall be referred to the International Chamber of Commerce rules of Conciliation and Arbitration.

The MPSA has been able to exhaust most of the important features that would need to be addressed in most contractual agreement, whist PSAs are characterized by a unique feature of profit sharing, common clauses such as dispute resolution clause, force majeure clauses are also found in the PSA. These provisions are always very useful and tend to protect the interest of both parties regardless of the rights and obligations imposed on parties to the agreement.

At this juncture the reader can able to have an idea of the current legal position in Tanzania in relation to the current governing law and practices in relation to the natural gas sector. We have been able to access the rights and liabilities of both the investors and the Government especially under the PSAs. This is a good starting point to look at how best the Government can improve its current practices so as to achieve the best possible returns in this investment agreements under. To do so, we will have to access the loopholes that are present in the current system which might be a source of lack of revenue generation by the Government.

The following Chapter will centered on evaluating the best and worst features set forth by both the licensing and PSA regimes in the context of Tanzania. Our main focus however will be on the worst features linked to these regimes which will pave way for our proposals in the chapter after the next. Before we look at these challenges in the case of PSAs however, it would be best to first understand what PSAs are, why they came into existence and how they operate. Only after doing so we will able to appreciate why PSAs do not seem to offer the best solution to host Governments like Tanzania in safeguarding her interests.

3. Licencing Regime in Tanzania and related problems.

The Act discussed in the previous chapter is applicable to some investment agreements in relation to the Natural gas industry as it is in the oil industry in Tanzania. The investor is granted exclusive rights over the licensed area for the number of years in which the license is valid for. Notice that in the licensing regime and for the duration of the licence, the Government losses all its rights over the area contracted for and in turn grants them to the investor. The Government is able to gain revenue through the operation of such contracts only through royalties, taxation and fees structures that are set under the Laws of the country. The best features about the Licensing regime is that the investor bears all the risk of production, through operations. This means that if for example the investor faces problems during the exploration phase that leads up to no natural gas being found, the Government would not be required to contribute in mitigating the effects or loss suffered by the investor. In this sense therefore, such a regimes is quite beneficial to the Government. Additionally, pure licensing regimes and concessions usually do not involve NOCs such as TPDC in Tanzania's case rather the dealings are just between the Government and the investors directly. It is no coincidence that in most licensing cases there is no much complicated administration or negotiations required. The amount of obligations set out under PSAs for example are more and require better negotiations from a legal, financial and technical point of view compared to the licensing regime. In this case therefore, it is advantageous to the Government using the Licensing regime because it is able to save up on these additional expertise expenses and rely solely on the Laws of the country to regulate the operations of the license. In turn the Government ends of using very few resources of their own and whilst gaining revenue through taxes and royalties. To maximize their revenue therefore the Government would have to impose rather high tax rates to ensure that it makes the most out of the investment.

The main downside related to licensing regimes is the loss of exclusive rights by the Government during the licensing period to the investors and the IOCS. Once the contracting companies have paid up the set royalties and taxes, the remaining share is exclusively left for their use. The investor can choose to export the natural gas or sell in the domestic market at the rate that generates maximum profit for them. If the country therefore has poorly structured taxation mechanism in place, the level of income generated by the Government from these operations will definitely be low. The Government must also be wary that most Companies try to conduct their busy so that

they try as much as possible to reduce the amount of tax payable from the generated revenue. This could be through legal or sometimes illegal means. In a country like Tanzania which is challenged by the bureaucratic problems and corruption, this wish by most of these Companies can be very much so granted and ultimately the Companies can end up paying very little amount of tax compared to what was legally payable. The beneficiaries of these dealings ends up being the contracting Companies while the host Government remains on the losing end of the stick.

3.1 Brief history of PSA.

PSAs were first introduced in Indonesia and the Persian Gulf around the 1960s and 1970s. In Africa, Egypt was the first country to adopt the PSA concept without requiring the contracting company to pay any royalty. *PSAs were adopted in Libya in 1974 with the State companies contributing to the operating and development costs until the date of export once a commercial discovery is made. The cost is shared between the State Companies and Contracting Companies at a ratio of 81:19 or 85:15 just as production is shared. The Contracting Company was not required to pay any income tax or royalty. In the Malaysian PSA, a maximum of 50% crude oil and 60% of the proceeds from the sale of natural gas is reserved for the purpose of crude oil and natural gas operations cost recovery separately. Following this example, other countries like Angola, China, Yemen, Myanmar, Vietnam, Ivory Coast, Ghana, Tanzania, Oman, Russia, Kazakhstan and Azerbaijan etc. have also adopted PSAs with varying conditions for cost recovery*[14]. The move towards PSAs was due to the growing need for the host Governments to take control of governing their own resources especially following the colonial era. At the time most Governments had entered into concessions and licensing agreements. These agreements with their advantages, were highly criticized for the fact that they jeopardized sovereignty of these Governments. As previously discussed many newly independent countries had to look for best ways to protect their resources especially the nonrenewable ones like oil and natural gas from foreigners and foreign companies. Countries that had started exploring oil and natural gas resources such as Saudi Arabia, Venezuela, Iran, Russia etc. used their revenues to develop their national companies so that they monopolize the industry and shut down foreign investment. These countries could afford to do so however because they had sufficient financial resources, personnel,

[14] Tavern, B, Petroleum, Industry and Governments An Introduction to Petroleum Regulation, Economics and Government Policies, Kluwer Law International, 1999, Pg. 260

technical resources etc. Low and middle income companies till needed support from foreign investments. They also however had concerns about sovereignty and worried about the effect of giving too much control to foreigners through investments. PSAs were formulated so as to deal with this main purpose.

Since the Government and the Investors all seek to attain maximum profit from the industry, the main challenge is therefore to strike a balance between the interests of both parties. The Government whilst remembering that maximum revenue will lead to development and attainment of its goals. And of course the Investors whilst remembering that profit maximization is the focus of any business project. Any favoritism on the part of the part of the Government would most probably have an enormous negative effect by deterring investors from engaging in investment activities in the respective country which no doubt needs them.

3.2 PSA in context.

PSA as the name suggests involves the sharing or partnership between the host Government and the investment Company. The sharing element is realized after production where the two parties share the generated production or profit at a prior agreed percentage. By definition a PSA "*is a contractual agreement between a contractor and the host Government whereby the contractor bears all exploration cost and development and production costs in return for a stipulated share of production resulting from the effort*"[15].

Although PSAs differ widely in their terms and conditions, there are some common principles that seem to be applicable in almost all PSAs. The First feature is that the state must always be a party to the agreement, this can be through a state owned organization or through the Government on its own. Secondly, because land is owned by the State, the unproduced natural gas remains the property of the State. Only when the natural gas has been produced does title shift to the investing company by way of share of profit which the Company is entitled to. Thirdly, the bearer of the

[15] Akinwumi, Omolade, Cost Recovery and High Oil Price: How can host Governments capture adequate Revenue? A case study of Nigeria, (undated), https://www.dundee.ac.uk%2Fcepmlp%2Fgateway%2Ffiles.php%3Ffile%3DCAR-12_25_554710128.pdf&ei=r8A5UonWONSZhQe204GgDw&usg=AFQjCNFpktMHQpWIedlcDBVIUUINyHen4Q&bvm=bv.52288139,d.bGE, Page 4, Para 3, 18th September 2013

initial risks in the exploration stage is usually the contracting Company with the hope that there will be discovery made by the Company. If this does not occur, the Host Governments usually does not reimburse the contracting company with any costs incurred. Subsequently, after the PSA is signed between the two parties, the same becomes binding as law. Any new laws enacted in the host State will not act in a retrospective manner so as to avail or impose rights and obligations of either party if the same had not existed before the coming into force of that legislation.

Following the signing of the PSA the State or the state owned company grants the contracting company with the right to explore, develop, extract and produce the discovered natural gas at the most possible rate possible to generate the most possible revenue at the advantage of both parties.

The amounts that were paid up by the contracting company are deducted from production under the cost recovery mechanism. The Government would however usually deduct taxes and royalties before cost recovery. The Company would usually be allowed to recover up to a certain percentage from the production. Depending on a country, there is usually a fixed amount that can be recoverable by a company for every given duration.

After the deduction, the contracting company will be able to enjoy the returns of its efforts through a share from the generated profit at a given duration of the agreement. The contracting company and the host Government each gets a share from the total production

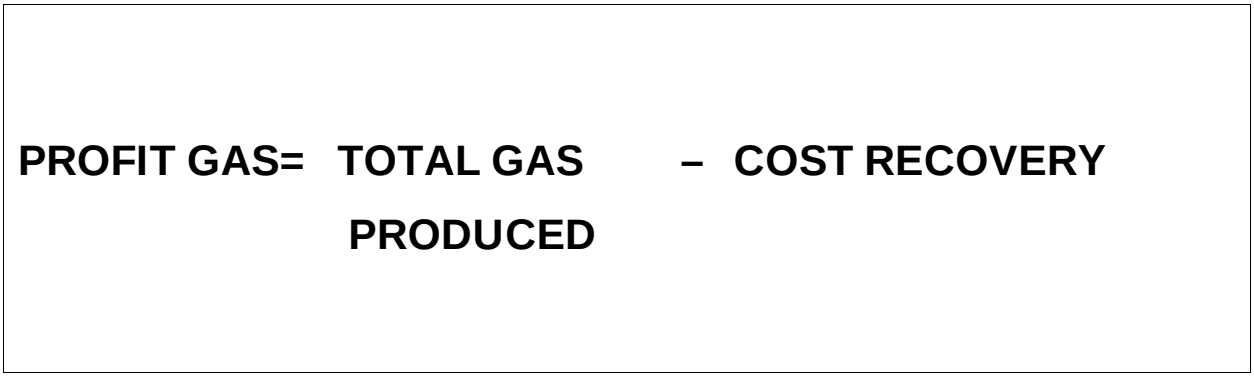

Figure 2: PSA profit gas summary

The host Government therefore has two means of gaining revenue in relation to PSA. Firstly through the collection of royalties and taxes from the produced natural gas. And secondly through the percentage share of profit gas that has been previously agreed on by the parties to the PSA.

PSAs bring about many advantages to the host Governments. These advantages can be accessed in the table below. The effects are derived from a research study conducted in Kazakhstan's response to PSA. It depicts the positive effects that arise from PSAs in Kazakhstan'

Table 3: Source: Kuzhimova, Aigerim, "Is it economically justified for oil producing countries to use production sharing Agreements? A case study of Kazakhstan

	Direct effects of a PSA	**Indirect effects of a PSA**	**Hidden effects of a PSA**
Short term effects	• Creation of an industrial infrastructure; • bonuses, payments for the social development of regions; • reduction of Unemployment.	• workplaces for the Kazakh citizens directly related to the realization of the project; •creation of new workplaces in allied industries; •Enlisting Kazakh enterprises to the project - contractors And suppliers.	• Assistance to other regional spheres of business; •modernization of existing workplaces and creation of automated workplaces; •improvement in the educational level of the population in regions, etc.
Middle term effects	• Receipt by the state of a share of oil profit; • CIT; • VAT; • ST; • IIT; • Excise taxes; • Taxes and special payments of users of mineral resources; • Tax on means of	• Support local population and indigenous people; • Development of socially-responsible business; • Enhancement of Environment.	• Increase in the standard of living of the population in the regions where the joint venture is based; • development of the market in educational services; • health improvement of the population;

			•improvement of the Demographic situation in the relevant regions.
Long term effects	• development of social infrastructure of regions; • Revenues of the Kazakh participants Of projects.	• development of the system of local suppliers of goods and services; • Preparation of Domestic experts.	• additional inflow of investments into regions; • economic growth in regions; • reduction in numbers of regions requiring subsidy; • access to the world markets; •Increase in competitiveness of the whole Kazakh economy

3.3 Problematic issues related to the PSA regime in Tanzania.

Under the MPSA as accessed earlier it can be appreciated that the Government has decided to a large extent to limit the activities that can be carried out by the investing Companies by requiring that the Companies submit their proposals to it for approval. Nonetheless, most of the control that the Government seems to take under PSAs in practice is not in our opinion exercised due to structural bias. Structural bias can simply be explained as the structural circumstances that in one way or the other limit the exercising of the control that is given to the Government which in turn makes it easier for the investing Companies to take control.

There are usually very few local experts who are deeply aware of the on-site machinery and who for example can challenge the management of these Companies for purchasing such machinery that the experts feel were not necessarily needed. As a result people who end up having the final decision on what machinery is required to be imported, rented and subsequently used ends up being the same contracting Companies that would later be eligible for reimbursement of the said operation costs. What seems to be the problem then? The problem is that there is a high possibility

that at certain times there might be a misuse of resources by the contracting Companies because they are sure of being reimbursed with the costs incurred by them. To their advantage, structural bias works in their favor in that the Government though purports to have the rights to scrutinize these Companies, in actual sense cannot do the same because the lack the means to do so.

Whilst TPDC has many qualified experts who can be trusted to carry out their activities in the best interest of the country, we must also look at the duties imposed on TPDC under these PSAs while bearing in mind also that the body is also imposed with similar duties when it comes to PSAs in the oil investment industry in Tanzania. Expecting that TPDC delivers to the fullest the requirement of properly scrutinizing the accounts of all contracting Companies in the natural gas industry that it is able to spot elevated prices even though the Companies have not exceeded the approval limit is rather premature. In addition to the work load, the fact that the industry is fairly new means that there are a few trained personnel that can challenge most of the expenses that are raised by these Companies.

The managerial control that is afforded to the host Government in decision making ranges from the daily expenses incurred by the contracting Companies to the expensive purchases of machinery and other materials that might be needed during the course of development and production. With the limited amount of managerial say in relation to operations there is inefficient monitoring by the Government of the contracting Companies' expenditure. The potential for gold plating on the contracting Company very much exists. In Nigeria for example, a peculiar problem has been the State Company's inability to adequately monitor the expenses of the contracting Company's notwithstanding the expenditure limits set out in the PSA coupled with the problem of corruption that threatens the whole economy as a whole[16].

Through the MPSA we have been able to see different Sections and Articles that were able to limit the operations of the contracting Companies to a fairly considerable extent. This included cases where the Companies had to seek prior approval from the TPDC management respectively before carrying out activities. An example could be seen under the MPSA:

[16] Akinwumi, Omolade, Cost Recovery and High Oil Price: How can host Governments capture adequate Revenue? A case study of Nigeria, https://www.dundee.ac.uk%2Fcepmlp%2Fgateway%2Ffiles.php%3Ffile%3DCAR-12_25_554710128.pdf&ei=r8A5UonWONSZhQe204GgDw&usg=AFQjCNFpktMHQpWIedlcDBVIUUINyHen4Q&bvm=bv.52288139,d.bGE , Page 14,Para 2, 19th September 2013

"*SECTION 3: COSTS, EXPENSES, EXPENDITURES AND CREDITS OF THE CONTRACTOR*

Costs Recoverable without Further Approval of TPDC Subject to the provisions of the Agreement, the Contractor shall bear and pay all costs and expenses in respect of Petroleum Operations.

These costs and expenses will be classified under the headings referred to in Section 2. The following costs and expenses are recoverable out of Cost Oil and/or Cost Gas by the Contractor under the Agreement."

Other costs and Expenses

Any other costs and expenses not covered or dealt with in the foregoing provisions of this Section 3 and which are incurred by Contractor for the necessary and proper conduct of Petroleum Operations are recoverable only with the prior approval in writing of TPDC." [17]

What is vivid is that the Government does set up mechanisms where it can limit the expenditure of the contracting Companies in some cases unless it has been approved by the Government itself. Of course this restricts the total freedom that if given to the Companies. The Companies even with such restrictions may over exaggerate the costs incurred sometimes and make sure that the costs fall within the range of the accepted costs and expenses which do not seek prior approval by the Government even though the real costs incurred where not the once stipulated. This is what has been previously mentioned as gold platting the prices. The additional cost incurred by the Government to pay the Companies despite the fact that the costs were not exactly incurred but rather added unto seems to cost the Government more and favor the Companies

The cost recovery factor is embedded on all PSAs. The idea is derived from the principle that '*the one who put up the capital should at least get their investment back*'[18]. The investors are therefore allowed to reclaim their share of the costs incurred in the course of the investment period. It is undisputed that it seems generally fair to do so. A problematic scenarios however arises when the prices of the natural gas. The rising level of the prices tend to elevate the cost of operations and

[17] TPDC, Model Production Sharing Agreement, 2008, http://www.tpdc-tz.com/MPSA%20_2008.pdf, 1.08.2013, Page 73.
[18] Johnsn D., International Petroleum Fiscal Systems and Production Sharing Contract, 42 (Pen Well Publishing Company, 1994, Page 56

well. Because the host Government is bound by the terms of the PSA agreement then the Government must re pay the investors accordingly? The end beneficiaries of such profits are other business sectors, which in most cases end up being from the investor's home country. Unfortunately the host Government will still have to pay for this increased profit at its own disadvantage. The scenario is explained better through the case study done in relation to the oil industry in Nigeria. The Author criticizes the effects of cost recovery because it ultimately ends up benefitting the contracting Companies and their native country more than it does the host country especially in the case of price elevation.

"*When oil price is high, consumers, airlines, utility and petrochemical Companies pay more for heating oil, gasoline, jet fuel, crude oil and raw materials, and the whole economy pays more for electricity*[19]*. The extra payments do not disappear but become revenue and translate into profits for some businesses and losses for others. This results in improved insulation in homes, more energy efficiency in industrial processes, more fuel efficient auto mobiles and on the part of government, various subsidies and tax relief. Since higher energy prices shifts profit allocation from one business sector to another, and contracting Companies ultimately repatriate profits to their home country, the full benefit of high oil prices is not enjoyed by the Government which seeks to cushion its effects on its citizens. An increase in price will increase the value of the venture, and as cost oil is increased, the contractor can recover a greater percentage of its cost earlier in the life of the field with the potential to exceed their actual cost (a situation of 'windfall profits'). As the Government is constrained by the terms of the PSA, it is unable to recover the excess revenue resulting from high oil prices. Any attempt by the Government to reduce cost recovery at such times would amount to a breach of a fundamental term of the contract which would lead to a dispute except where the PSA stipulates the sharing formula for the windfall profits*"[20].

The MPSA under the types of recoverable costs provides for a limitation when it comes to the amount that the contracting Company can recover from the Government.

[19] Akinwumi, Omolade, Cost Recovery and High Oil Price: How can host Governments capture adequate Revenue? A case study of Nigeria, https://www.dundee.ac.uk%2Fcepmlp%2Fgateway%2Ffiles.php%3Ffile%3DCAR-12_25_554710128.pdf&ei=r8A5UonWONSZhQe204GgDw&usg=AFQjCNFpktMHQpWIedlcDBVIUUINyHen4Q&bvm=bv.52288139,d.bGE, Page 12, Para 3, 20th September 2013

[20] Ibid, Pg. 13, Para 1, 2, 20th September 2013.

"The Contractor shall bear and pay all costs and expenses in respect of Petroleum Operations. These costs and expenses will be classified under the headings referred to in Section 2. The following costs and expenses are recoverable out of Cost Oil and/or Cost Gas by the Contractor under the Agreement:

(b) Labour and Associated Costs

(i) Gross salaries and wages including bonuses of the Contractor's employees directly and necessarily engaged in the Petroleum Operations, irrespective of the location of such employees, it being understood that in case of those personnel only a portion of whose time is wholly dedicated to Petroleum Operations, only that pro-rata portion of applicable wages and salaries will be charged. For purposes of cost recovery, gross salaries and wages for the Contractor's employees shall not exceed US$15,000.00.

(ii) Cost to the Contractor of established plans for employees' group life insurance, hospitalization, company pension, retirement and other benefits of a like nature customarily granted to the employees and the costs regarding holiday, vacation, sickness and disability payments applicable to the salaries and wages chargeable under subsection (i) above shall be allowed at actual cost, provided however that such total costs shall not exceed twenty-five per centum (25%) of the total labor costs under subsection (i) above."[21].

The provision above sets a salary limit for all employees that can be recovered by the contracting Company under the Recoverable expenses respectively. It also goes on to limit the amount of insurance, and other benefits so that they cannot exceed 25% of the mentioned amount of USD 15,000. Whilst the idea behind setting a limit of the amount that can be recoverable is a useful one, we must also remember that the MPSA and the Act in the same context provide that the Companies must encourage the employment of more Tanzanians. If the Companies are to properly implement this requirement then we can agree that the salary limitations are going to be very much applicable to the Tanzanian than they would to foreigners. Subsequently the affected party seems to be the Tanzanians again who regardless of the qualifications or nature of job or even location must all be paid a sum which must not exceed the stated amount limit if the Companies expect to be able to recover for the same.

[21] Ibid, Page 73, Para 3 and 4.

Similarly, one could counter argue that the limitation of the amount that can be paid up as salaries or other related costs would sometimes have to be paid up by the contracting Companies even though they have no prospects of recovering the expense incurred. However we all know that the Companies seek to generate as much profit as they possibly can in the business. This for contracting Companies mean that they will be given the opportunity to recover all the costs that were incurred during the conducting of the investment activities. The subsequent result therefore is minimum or relatively low salary scales for the employees who are supposed to be mostly Tanzanians so that the salaries are confined into the stated amount limit. This ensures that the expenditure amounts are indeed going to be recovered by the contracting Companies. Overall this does not favor the Tanzanians who are given the employment in these Companies in the end. And definitely does not favor the host state also.

The PSA and licensing regime with its advantages possess disadvantages that subsequently affect the country as the user of the regime. Something must be done to the current position in Tanzania therefore so that the country is placed at a better position to make use of the natural resource it possesses for development.

In the next chapter, having looked at the challenges facing the present regimes and practices pertaining to the natural gas industry investments, we attempt to raise proposals that can be implemented by Tanzania for the betterment of the current position and subsequent development.

4. Proposals for improving the current system.

As stated in the previous chapter, there are various issues that can be revisited by the country in making the situation better. These proposals are in no way exhaustive. They are however thought of as alternatives or additions to the current position set in the country. In this chapter we will first access the other types of contracts that Tanzania can engage into in conducting their upcoming investment agreements in the natural gas field. We will discuss service contracts in details. The advantages that service contracts possess over the PSAs and licensing regime. A comparative study between service contracts and PSAs whilst taking into account their disadvantages as well. Finally we will look at how they have been applicable in other jurisdictions and how Tanzania can adopt them as well.

4.1 Service Contracts.

Service contracts (hereinafter referred to as SCs) can be easily understood as the contracts between a host Government and contractor to carry out a specific type of assignment for a specified duration of period and at a prior agreed fixed remuneration.

A service contract may be better defined as a long-term contractual framework that governs the relation between a host government and international oil Companies (IOCS) in which the IOCS develop or explore oil or natural gas fields on behalf of the host government in return for pre-determined fees and in which in most cases the host Government does not hand over the control of the extracted or subsoil or sub- surface resources to the IOCS[22].

Service contracts began to be adopted in different countries at around 1980s and early 1990s. Most of these countries were the major producers of oil and natural gas in the world. Venezuela, Kuwait and Iran signed their first of such contracts in 1991, 1992 and 1995 respectively[23]*.More recently Iraq, Mexico, Bolivia, Ecuador and Turkmenistan have also signed new service contracts. These countries have shown more interest in adopting variations of service- type contracts rather than the traditional production sharing contracts in order to explore and develop their oil and*

[22] Ghandi, A , Lin C-Y, "Oil and Gas Contracts around the World: A Review, 1 May 2013, http://www.des.ucdavis.edu/faculty/Lin/service_contracts_review_paper.pdf, 25 September 2013, Page 2, Para 1, 3rd August 2013.
[23] Ibid, Page 2, Para 2.

natural gas fields[24]. Depending on different countries that choose to use SCs. SCs maybe be varied depending on the needs of the host Government. There are three classifications of SC that are adopted:

Firstly we have the buy-back service contract which are the types of contracts that the contracting Companies are given the priority to purchase a portion of the resulting natural gas at a pre-agreed discounted rate.

There are also the technical service contracts where the contracting Companies are retained purely for its technical expertise and technical resources.

Finally we have pure risk service contracts where the host Government retains the contracting Company to gather and provide information necessary.

In all the three types of SCs we see that the contracting Companies are afforded very minimum amount of rights when it comes to investment activities. The buy-back SCs are the only ones that seem to give the contracting Companies the right to purchase the natural gas produced. This right is not automatic as under PSAs. This means that the amount that can be purchased is fixed prior to the signing of the agreement. It does not vary depending on the production amount of natural gas. (Refer to table 2). The remaining two types of the SCs: namely the technical service contracts and pure risk service contracts purely place the contracting Companies at a very limited position compared to the position that they are on PSA. This is because in both SCs the Companies are not at any point given exclusive rights over the land or the natural gas produced. The Companies during the time in which the agreement is in force are like employees that are given contracts to carry out a specific task for a specific period of time and a given specified remuneration. The Government remains the sole manager of the activities regarding the investment. Managing both operational and administrative activities that are related to the investment. This again unlike under the PSAs, puts the Country at a better position to be the deciding party in relation to all carried out activities.

In another words, SCs seem to address the problematic challenge that is attributed to PSAs very well. This is a win- win situation for the host Countries that are in need of investors' technology and experts on the one hand and on the other hand, the Government is also concerned with the

[24] Ibid

amount of power that investors are given to when they engage in these investment activities. *Authors acknowledge that the move towards service contracts is reminiscent of a similar transaction towards production sharing contracts away from concessionary system starting 1966 in Indonesia*[25]. It is clear that sovereignty issues are the major concern for many countries. Most countries want to have the majority of the power when it comes to the resources that they own. More power to make decisions and more power to scrutinize and manage the operational activities. More power will prove beneficial to the country because it will enable these countries to not only take control of its resources, but also this shift of power will as many would say strengthen sovereignty.

The challenges that have previously been discussed in relation to PSAs would not be expected to be present in SCs. On top of addressing the sovereignty issue, with SCs the host Government does not have to be concerned with the issues of cost recovery as they would under PSAs. The lack of adequate managerial supervision as the one faced by host Governments under PSA regime could be easily addressed by the SCs. This is because the SCs regime allows the Government to supervise the purchase activities and maintain the operating accounts. This subsequently eliminates instances where there would be gold platting of prices by the contracting Companies in the attempt to recover more from the Government. Cases of reckless purchasing by contracting Companies that could be attributed to PSAs are less likely to be seen in SC because for SCs the contracting Companies are not expecting any form of recovery of the expenses incurred. Gold platting prices or misuses of funds at the disadvantage of the host Government does no good to the Contracting Companies in the case of SCs.

SCs can be argued as the answer to many developing countries which possesses nonrenewable resources such as Tanzania. Why? Well the simple answer to this question would be the fact that SCs seem to grant Tanzania the lost sovereignty through PSAs back. Additionally SCs seem to also get the work done similarly to what PSAs do. The fact that the expertise and technology and even training for the natives can be used by the developing countries like Tanzania to achieve the same goals as the ones that would be achieved under PSAs whilst not jeopardizing in any way the

[25] Ibid, Page 2 Para 1

sovereignty aspect of the country is a commendable thing. In my opinion SCs place the country using in a better position compared to PSAs.

4.1.1 Similarities between SCs and PSAs.

The SC is often described as a form of PSA. This is mainly because the two despite their substantive differences share some features. When accessing a model SC the terms binding the two parties into the contract are very much similar to the terms binding the parties to the PSAs as well. Before we access the difference between them let us first assess the similarities.

As previously discussed in PSAs, the contracting Companies are the main capital providers when it comes to the investment activities. Additionally the Companies will during the course of the investment recover their costs. A similar situation is experienced under SCs where international investors come into the country in question bringing in technology, experts and man power and additionally providing capital to the country so that the investment can be subsequently carried out. The only difference of course is that under SCs the parties fix the amount that can be used by the Contracting Company and the Government usually reimburses the same of its expenditures. Under PSAs of course, there is not such fixed remuneration practice.

In both types of agreements, i.e. the SC and the PSA the State Company is usually the representative party of the host Government. Subsequently the agreement is usually between the State Company and the host Government.

Depending on the drafting and negotiating skills of the parties involved, both SCs and PSAs usually have national interest protection clauses. These are the clauses that usually put the host Government's position at an advantage over the contracting Company. These clauses would include for example the requirement that the natives are afforded employment as much as possible if they qualify. Or additionally require the Companies to use the host Countries' goods and services to carry out the exploration and development activities of the natural gas as much as possible.

Obviously like all other contracts, both the SCs and PSAs have specific time frames. The periods may be extended depending on the terms of the contract entered into prior to the contracts coming into force. Additionally because these contracts are represented by State Corporations as

representatives of the Governments, additional legislations that regulate the industry usually also provide additional time frames in which the investments can be carried out. Both the SCs and the PSAs are usually drafted and interpreted so that they fall in line with the present laws in question.

Additionally, both SCs and PSAs are usually given minimum work stipulations. With these minimum targets set out that the contracting Companies must fulfill, they are usually also given maximum expenditure sum that cannot be exceeded in a given period or for a given task. In PSAs the maximum expenditure requirements though not for all cases related to the agreement do exist. A pervious example we gave was in relation to maximum expenditure under the MPSA. It was provided that the contracting Company cannot exceed $15000 for payment of salaries of its employees. Minimum work targets however are more common in SCs. For SCs because the Government generally is the main party in control of the operational and managerial activities. The Government will usually stipulate the minimum work requirement that would be expected to be delivered by the contracting Company under the SC.

4.1.2 Differences between SCs and PSAs

The differences between SCs and PSAs can be divided into four major parts. These are field ownership rights, produced natural gas ownership rights, field operatorship and degree of risk borne by each side.

In SCs, the contracting Companies do not possesses any form of field ownership rights. Unlike under the licensing regime or the PSA regime where after the development stage commences, the contracting Company is given exclusive rights over the area in question, under the SCs the contracting Company owns no part of the field rights but is rather expected to just carry out the activities in the area under the supervision of the Government through the State Corporation.

The biggest difference between SCs and PSAs also lays under the produced natural gas ownership rights. Under the SCs, generally the contracting Company is not afforded any rights of the produced natural gas. The Companies are only entitled to a fixed pre-determined returns specified under the terms of the contract. A slight change is afforded to the contracting Companies when

given the opportunity to purchase a share of the produce natural gas. These are as previously stated, the buy- back contracts. This right to purchase however is not an automatic given right but rather comes into play if it had been previously agreed to by both parties under the terms of the agreement under the SC. The same is however not the case when it comes to PSAs. Under PSAs as we have previously seen, the contracting Companies are not entitled to ownership of the produced natural gas. This is through their entitlement to profits that are generated as proceeds after the sale of the natural gas produced.

How field's operatorship works elaborates the third difference between SCs and PSAs. Under SCs, the main operators of the investment activities are State Corporation on behalf of the host Government. This includes all the activities that are carried out in relation to managerial and administrative activities. Unlike under the PSA regime where field operations are solely managed by the contracting Company with limited interference on the day to day operations of the field, under the SCs the enhanced control that is afforded to the contracting Company is very limited.

The final distinctive feature that separates PSAs and SC is the amount of risk that is borne by each party to the contract. Under the SCs the risk of the investment is borne solely by the contracting Company. What does this mean? During the operation of the investment under SCs the Company after entering into an agreement with the host State would be required to carry out the activities and achieve the agreed results at the agreed period of time so that the Company is remunerated the agreed price that was fixed at the commencement of the contract. Failure to deliver the agreed results as per the agreement under the SC imposes no obligation to the host Government to pay the Company any form of remuneration.

The same cannot be said for the PSAs. This is because under the PSAs the risks are born by both the sides. The only additional point being that during the commencement of the exploration activities the contracting Company attempts to discover the natural gas in question at its own risk. PSAs usually provide separate terms before and after the natural gas is discovered: Usually during the exploration and development stages respectively. After the natural gas has been discovered however, the Company can recover the costs that were once incurred by the Company during the exploration phase through the cost recovery provisions. Cost recovery mechanism allows for both parties therefore to bear the risk of the investment. This is because the Government like the contracting Company will also be at a loss if for one reason or the other, the operations are brought

to an end. The Government needs for the operations related to the production of the natural gas to continue so that maximum amount of gas can be produced. This will lead to the quicker payment of cost recovery expenses by the host Government to the Company. Failure of the operation would not only make it harder for the host Government to generate revenue but it will also place it at a greater risk of suffering further loss because it has to incur further expenses of paying the contracting Companies for costs incurred even though the investment operation is not generating any revenue for it.

It would be easier to juxtapose the differences of SCs and PSAs for the reader in any attempt to summarize what has been stated explained above.

Table 4: Comparing PSAs and SCs.

Type of contract used.	**Field ownership rights and operatorship**	**Produced gas ownership**	**Role of contracting Company**	**Payment to host Government**	**Payment to contracting Company**	**Parties bearing the risk**
Service Contracts	**Host Government**	**Generally no ownership unless under buy- back SCs**	**Contractor under the investment activity.**	**Income tax through fixed fee paid to the Contractor**	**Fixed agreed payment**	**Borne solely by the contracting Companies**
Production Sharing Contracts	**Host Government and the contracting Company**	**Shared ownership between the host Government and the contracting Company through profit sharing.**	**Partner under the investment activity**	**Royalties and additional taxes.**	**A share in resulting oil**	**Borne by both the Company and the host Government, through cost recovery mechanism.**

From the table 4 above, it can easily be summarized that SCs tend to limit to a large extent the rights of the contracting Companies. This is usually at the advantage of the host Government. Under SCs the host Government fixes the particular remuneration that ought to be paid to the

contracting Company with no general requirement of having to share the proceeds of sale of the natural gas that has been produced unless the contract is a buy- back service contract.

Additionally the host Government does not have to bear any form of risk under the SCs. All the risks are totally borne by the contracting Companies. This again proves advantageous to the Government in question. The Government in question would only have to pay the agreed fee to the Company at the agree time frame and for the agreed amount of work and it can proceed to own the proceeds of all the produced natural gas without having to share ownership rights of what is produced.

4.1.3 Service contracts in Tanzania?

Having accessed the advantages that come together with SCs, we cannot overlook the fact that service contracts are beneficial to host Governments using them. Benefits lie mainly on the fact that SCs seem to promote more sovereignty of the host country using them. More Sovereignty through ownership of the natural gas operation and also the natural gas produced. Tanzania could definitely benefit from this.

Currently Tanzania is conducting ongoing investments in the natural gas sector as shown in table 1 above. In addition to the investment activities shown, and following the recent decisions made by the Government, it appears that there will be more investment activities conducted in Tanzania. The Government of Tanzania announced the 4th Tanzania Deep Offshore and North Lake Tanganyika Licensing Round. The official launch of the Licensing Round will be on 25 October 2013 at the 2nd Tanzania Oil and Gas Conference and Exhibition and will conclude on 15 May 2014[26].In total eight blocks are being offered; seven blocks are deep-sea with water depths between 2000m and 3000m, and the North Lake Tanganyika block is described as being offshore of the East African Rift System. The average size of the blocks is 3000sq. km though the size of the North Lake Tanganyika block is stated to be close to 9,700sq. Km[27].

[26] Palmer, B and J, Andrew, "Tanzania announce 4th Offshore Licensing Round", 31st May 2013, http://www.lexology.com/library/detail.aspx?g=1a22517c-bee1-419a-8d1b-c433db25f055, 28th September 2013, para 1
[27] Ibid, para 2

This round was initially announced in April 2012, with an intended closing date of April/May 2013, however it was postponed due to technical reasons and a desire by Tanzania's Ministry of Energy & Minerals to present a new Natural Gas Policy in the October 2012 Parliamentary session. The Tanzanian government is keen to remain competitive with neighboring countries including Kenya which has opened up to prospectors and has seen gas finds of approximately 2tcf[28].

The increase in the number of investors engaging on the natural gas industry makes the aspect of Government control over its natural resources such as natural gas even more important. Increase in investing Companies having control over the natural resources of the country is a concern for all developing countries including Tanzania because of the associated risks. The more power given to the investing Companies, the less Tanzania can generate more revenues for itself. This leads to minimum tackling of Tanzania's problems that hinder development. As a result, with all the natural gas available, and all the ongoing investment activities, Tanzania continues to struggle with development aspects. The investing Companies remain the great beneficiaries of these investment. This is through the huge profits that the Companies continue to generate, and the increasing power that the Companies continue to acquire. With SCs, as stated the powers of these Companies is very much reduced.

4.1.4 Criticisms of SCs – A point of consideration for Tanzania.

With the good, comes the bad. And like all types of contracts, there are usually a number of criticisms that are normally raised for every type of agreements entered into. Licenses and concessions were very much criticized for their inability to uphold the host States' sovereignty. Similarly, although PSAs try to deal with the aspect of Sovereignty by moving a step further and granting more control to the host Government, PSAs are still very much also criticized for affording less sovereignty to the host Government adopting them. The Governments adopting them will have to share ownership of the resources possessed by these country and this automatically lessens the amount of control possessed by them.

In giving proposals to Tanzania, it is wise to therefore critically analyze SCs by also assessing the negative aspects related to them as well. SCs have been increasing criticized for not being economically profitable for the Countries choosing to adopt them. As shown by Ghandi and Lin

[28] Ibid para 3

in the study done for Iran's buy back service contract and Iraq's producing field technical service contract respectively, in both studies, the state- owned oil companies' objectives diverge from dynamic profit maximization, therefore serving as one of the factors causing service contracts to be economically inefficient. In fact adopting a dynamic profit maximization policy as a means to increase the economic efficiency of the service- type contract is a common recommendation suggested by both studies for both cases of service contracts in Iran and Iraq[29].

However even though both studies show that adopting dynamic profit maximization objectives, as opposed to maximizing undiscounted revenue or cumulative production through time, could yield more economically efficient outcomes, the adoption of such a policy might not be enough to make the outcomes under a SC efficient. The uncertainty is due to the fact that the dynamic profit maximization concept requires making incessant optimal decisions through time. In other words, such a policy requires that in each period, the operator updates its decision on the optimal production quantity and also its optimal decision drilling plan based on updated oil market price forecasts, reserves estimates, required capital and operation cost and other determinant factors. However, since the IOCs remuneration are pre- determined in association to the production profile through the lifetime of the contract, the current service contracts lack the necessary tools for adopting the dynamic profit maximization objectives by the state- owned oil Companies[30].

The story is different when we juxtapose this aspect of SCs to PSAs, how so? This is because, under PSAs there exists a partnership between the host Government and the investing Company. The parties in the PSAs have the main goal of maximizing profits. The same is achieved in a better way than the case of SCs because for PSAs the investing Companies are given ownership rights and decision making powers over the generated natural gas. Operations are ran whilst the main focus being the generation of as much profit as possible. One can rest assured that the investing Companies will take all necessary measures to ensure that the generated profit is generated at the maximum level. Because the host Government is a partner in the PSAs then whatever is generated is shared. The host Government ends up also sharing the maximum generated profit. For SCs however, because the investing Companies have very little influence to plan when it comes to operation, they remain back benchers in the agreement. The level of persistence that is carried by

[29] Ghandi, Abbas , Lin C-Y Cynthia, "Oil and Gas Contracts around the World: A Review, 1 May 2013, http://www.des.ucdavis.edu/faculty/Lin/service_contracts_review_paper.pdf, 25 September 2013, Page 4, Para 1
[30] Ibid

these Companies for search for more profits is usually not shared by the host Governments implementing SCs. As a result, SCs in most occasions to not deliver as much profits as PSAs.

4.1.5. What can be done to improve SCs?

Despite the above stated shortcomings related to SCs all is not lost. In other words, much can still be done to make the SCs regain the potential of economic efficiency and profit maximization. This can be done through improving the SCs framework. *As Ghandi and Lin show for the case of the Rumaila producing field technical service contract, in comparing the most likely scenarios to be realized with the optimal outcome under the conditions of the contract, there is a potential for a profit gain as high as 56 to 83 billion dollars for the varying and high well productivity cases respectively*[31].

We will have to look at the different variations that have been adopted by SCs in different countries in order to appreciate the different ways in which SCs have been altered so that they are better accustomed to increase in profits. The measures had to be taken by different Governments via their state Corporation on the relationship that the two had with the investing companies. On accessing how different country have altered PSAs, Tanzania can benefit in one way or the other from how other jurisdictions that use SCs are attempting to make SCs work better for them for better generation maximization of profits. We will consider SCs from Iran, Mexico, Kuwait and Ecuador which have undergone some alterations of their form to yield better results of the countries that have adopted them.

Iran's Buy- back SC were first introduced in 1995.They underwent a series of generational changes before the most recent form of SCs for exploration and development had been used by Iran in 2004. In 2009, the National Iranian Oil Company signed a buy-back service contract with the Chinese Sinopec International Petroleum Corporation in which the Corporation is allowed to make a final decision on the capital cost level up to two years only after the start of the contract[32]. Giving the investing Company limited power for the first two years after the contract has been signed reduces the amount of risk that is usually born by the investing Companies in the SCs. This

[31] Ibid
[32] Ibid, Page 9, Para 1

might attract different investing Companies because at least for the two first years the Companies will not be subjected to price ceiling hence bearing all the maximum amount of risk.

Mexico announced the adoption of its first version of Service Contracts known as multiple service contracts in 2001 for non- associated natural gas development projects only[33]*. The decision to adopt this type of SC framework was taken as a way to invite foreign and private investment in the natural gas (upstream) sector, while also accounting for the country's strict constitutional exploration and production restrictions. The natural gas sector was chosen by Mexico for two major reasons, firstly because of limited resources that were available to the State Corporation, any form of assistance to it was very much essential. Assistance in this case was through capital, technical assistance and expertise. The other reason for the adoption of SCs were due to the fact that Mexico was in need of additional production of natural gas that could be used to solve the power shortages that was experienced in the power sector. Mexico felt that more domestic potential would be achieved through SCs because of the engagement of contractors in the investment activities. In order to make the contracts more attractive especially for the regions with more technical difficulties, including the deep-water Gulf of Mexico, and to be able to have larger IOCs with more capabilities, the Mexican government announced a new version of incentive-based Multiple SCs in 2009*[34]. This policy was challenged by Mexican Congress in courts but later, the Court ruled in favor of adopting the new incentive- based Multiple SCs. Subsequently three Companies were awarded the incentive- based oil exploration and production multiple service contracts on three mature fields to two contracting Companies. Multiple SCs therefore seem to increasingly be gaining popularity in Mexico due to their ability to solve the challenges that previously faced Mexico, specifically in relation to balancing the country's interest, need for expansion of the natural gas industry and subsequent development on the one hand and the interest of the contracting parties on the other hand.

Another South America country with recent changes from PSAs to service type contracts is Ecuador. *The move towards the SCs is part of a broader Ecuadorian Government's policy shift for more state control over the oil sector. The other elements of such policy shift are the 90% windfall tax and IOCs and the joint venture cooperation framework proposal between Ecuador's*

[33] Ibid, Para 2
[34] Ibid, Page 10, Para 1

State- owned oil Company and other countries' state owned oil Companies for new oil exploration and production. The process of persuading the IOCs to accept the transform of their contracts started in 2007 and by 2010, eight service contracts were signed. In these new service contractual frameworks, the IOCs' cost recovery is based on agreed- upon flat fee, the Government takes are 85-90% of the oil fields' revenue. However in February 2012, a joint venture of four companies including Schlumberger Ltd. And Canadian Canacol Energy Ltd signed an incremental production contract, as a new variation of service contract, on two mature fields in northern Ecuador. The main scope of the contract is to increase the production of the two fields in return for U.S $ 39.56 per each additional barrel of produced crude. The contractors could also enjoy other benefits including a 50-50% split of the gain from operation cost reduction besides the per barrel reimbursement[35].

Iraq has adopted a type of SC that has been deemed to be more technically oriented. Iraq uses three different types of technical service contracts which are producing field technical contracts, production and development technical service contracts and a different service contract adopted during the exploration phase. *The production field technical service contracts have been awarded on the fields with production prior to the start of the contracts. This baseline production has been used for the cost recovery of the development in the fields. In production and development technical service contracts, a different mechanism is used for the cost recovery since these contracts have been awarded on the fields with no production before the start of the contracts*[36].

Bolivia has the second largest natural gas reserves in South America. Recently the country has chosen adopt a variation type of SCs called the operational contracts. This shift in Bolivia came following the need by the Government to promote more state control over hydrocarbon resources in Bolivia. Bolivia has chosen to adopted a rather interesting type of SC. Some scholars have added that this type of operational contracts can be deemed as hybrids of the SCs and PSAs. Why is this so? *Under the new operations contracts in place since 2006, the State Company has to pay to the Government three types of royalties (amounting to 18% of production value) plus direct tax (32% of the production value) from the production gross revenue. The remaining amount minus the operating cost is the shared profit between the State Company and the contractor, which is divided*

[35] Ibid, Page 12, Para 1
[36] Ibid, Page 13,Para 1

based on the production volume. This means that contractors are still entitled to a portion of the production without produced hydrocarbon ownership transfer. However, under the new sliding mechanism the Government's take is adjusted with the market value of the produced hydrocarbons in such a way that the sum of royalty and tax accounts at least for 50% of the value of the produced hydrocarbon[37].

In table 5 below, we have provided the summary that shows the different types of SCs adopted by different resource rich states in relation to the oil and natural gas resources they possess. The interesting thing to observe here is the changes that these countries have put in the SCs adopted throughout the years of using them. SCs therefore do not necessarily have to be rigid and take up one form at all the times that it is used. The variations will depend on the available resources that the specific country possesses and is ready to use in the development of the industry.

Table 5: Summary of countries and their variations of SCs. Source: "Oil and Gas Contracts around the world: A Review" Ghandhi, Abbass et al

Iran	**Buy- Back Service Contract First Generation. (1995)**	**Buy- Back Service Contract Second Generation. (2004)**	**Buy- Back Service Contract Third Generation.(2009)**
Kuwait	**Service Contracts. (1992)**	**Operating Service Contracts(1999)**	**Enhanced Technical Service Agreement.(2010)**
Mexico	**Multiple Service Contracts. (2001)**	**Incentive- Based Multiple Service Contract. (2009)**	**Incentive- based Multiple Service Contracts, Second round auctioning. (2012)**
Venezuela	**Operational Service Agreements. (1991)**	**Operational Service Contracts**	**Operational Service contracts, third round auctioning. (1997)**
Ecuador	**Service Contracts. (2007)**	**Incremental Production Contracts. (2012)**	**Incremental Production contracts.(2012)**
Iraq	**Producing Field Technical Service Contracts. (2009)**	**Development and Production Technical**	**Third and Fourth rounds auctioning**

[37] Ibid, Page 11, Para 1

		Service Contracts. (2009)	**technical service contracts. (2010)**

After considering the different SCs adopted in different countries that possess non-renewable resources such as oil and natural gas like Tanzania, it can be easily understood by many that although SCs usually have the main general framework, SCs also vary from time to time depending on the users. Different countries as studied below have chosen to adopt different types of SCs to fit their specific needs. These different types of SCs vary from operational SC as adopted by Kuwait and Venezuela to Incentive based SC as adopted by Mexico. The main idea had been the balancing act between the two aspects regarding these contracts. The aspects have been on the one hand, the need for these resource rich countries to attract foreign Companies that can provide them with the necessary expertise, technical knowhow and capital and on the other hand the need for these countries to maintain or even increase the level of State control of these resources.

Tanzania can choose to adopt any of the different varieties of SC as has been discussed. Because, the issue like it is for many of the countries adopting SCs is the need for expertise which can be useful during the exploration and developmental stages, adoption of SCs that are buy back SC for some of the contracts would not be such a bad idea for a country like Tanzania. Buy back contracts would allow the country to give the contracting Companies the opportunity to buy back some of the natural gas that have been produced in this investment activity. The generated revenue can be re used by the Government to pay off the agreed fixed fee to the contracting Company. Additionally the Government can chose to sell the remaining part of the generated natural gas to other users at a more competitive market price as the Government pleases. This seems to be a better option than the case of the PSAs because, in this case the Government does not give prior ownership of the unproduced natural gas to the investing Companies rather ownership remains under the Government which remains the main decider of what actions it will choose to take.

We are aware that the other challenge that could face Tanzania with the adoption and implementation of SCs is the lack of finances to cater for the fixed fees that are payable to the contracting Companies. Depending on the SC that Tanzania chooses to adopt, the Government will be required to furnish the contracting Companies with the agreed on fee. There might be alterations in relation to this because some countries that have adopted SCs have chosen to allow the contracting Companies to recover costs from the produced natural gas. This is quiet similar to

the previously discussed PSAs. On this note however, we are considering the basic type of SCs which usually require the fixed agreed fees to be paid to the contracting party as agreed. The main challenge for Tanzania would be the funds to achieve the same. Capital has always been the root problem facing developing countries when it comes to investments. And this has led to the need by the countries in question to seek out investors who would provide the necessary capital for the investment. In the case of SCs, Tanzania would have to possess the necessary agreed upon fee that would have to be paid to the contracting Company at the beginning of the investment activities and during the course of the investment activity as provided by the terms of the SC.

Currently, the investments under the PSA regime and the licensing regime are still existence with others having a long way to go until being completed. These operations continue to generate a lot of revenue to the Country as a whole. The increase in rate of investment in Tanzania as is seen means that the level of revenue generation will continue to rise with more time. In our opinion, the generated revenue can be used to some extent to cater for the fixed fees that will be needed when and if these SCs are adopted. With the time, the projects that are conducted under the SCs can begin to stand firm and operate for themselves. After this stage, these projects can continue with the production and development phases of the fields whilst the Government remains the sole controller of the whole project.

As part of a plan to increase the amount of Government control over the industry, the revenue that is successfully derived from the projects using SCs can be used to properly support the new SCs projects in the industry. Additionally, after accessing the economic viability of these SCs projects, Tanzania can choose to either amend the chosen SCs so that there is an adoption of better SCs that can lead to better profit maximization. We have seen in table 5, where a country like Kuwait or Iran, in a one decade has adopted several changes in relation to their SCs. Tanzania can do the same.

With the recent Government announcement by the Minister of Energy and Minerals, one thing is clear. There will be a lot of new investment projects that will be going in the natural gas industry. Converting some of these projects to SCs might not be such a bad idea for Tanzania in the more towards more Government control, something as we have seen, is the concern of my states that possess nonrenewable resources like natural gas and oil like Tanzania.

4.2 Negotiating natural gas contracts.

The other proposal that we wish to address in this context is in relation to the negotiations and negotiation techniques that are used in the contracts between the investors and Tanzania with regards to the natural gas industry.

In this sub chapter we will assess the different factors that ought to be stressed upon by negotiators representing Tanzania's side, so that there is a form of balance that needs to be achieved between the two negotiating parties, if not for Tanzania to benefit more from the negotiations and subsequently from the execution of the agreement between the two parties. The natural gas industry in Tanzania currently is growing with increase in number of discoveries made and that continue to be made. Proper negotiations in these ongoing investments can lead to overall benefits to the country and bring in developments.

Negotiating is an art. The skills to negotiate vary from parties that negotiate, matters at stake during the course of the negotiations and the needs of the parties that are negotiating. Initially most cases resource rich countries such as Tanzania want to attract as many foreign international Companies to come and invest in their industries, be it natural gas or oil industries. However once negotiations start, the countries find out that international countries possess greater financial resources, superior knowledge of natural gas and oil negotiations and more experience in negotiating contracts because of the different investment activities that they have previously carried out. *Indeed most companies where oil companies operate have far fewer resources than the oil companies themselves: for example Exxon Mobil's income of $371Billion far out stripped even oil rich Saudi Arabia's entire GDP of $281billion*[38]. Because of the upper hand that is possessed by these international investment Companies, most of the times developing countries are left on the disadvantaged side of the negotiation while these Companies continue to make huge profits from these investments. The developing countries not seen to be developing at the expected rate, or gaining the expected returns from these investments. *The problems of the developing countries are compounded by the private- public sector competition for skilled negotiators: the best and ambitious negotiators often turn to the more lucrative and professionally challenging private sector. A solution for national counterparts is to treat the negotiation phase as an investment and*

[38] Humphreys, M, Sachs, J et Stiglitz, J, "Escaping the resource curse", 2007, Columbia University Press, Page 90.

seek to hire skilled, dedicated and independent negotiators to counter the vastly superior experience and funds that oil Companies bring to bear. In short, the negotiation process and the engagement of expert negotiators are the unheralded and often overlooked means for a developing country to successfully, profitably and at relatively low cost exploit its natural resource for national advancement[39].

On the same note, regarding the need to employ properly qualified negotiators, the Government must make a long term plan to try and deal with his matter in for the sake of the ongoing contract negotiations and the future ones that are certainly coming. The Government should take a step further and invest in educating some of these local professionals who will subsequently be very useful in these negotiation deals. Education on its own is not enough. The key here is to place the best type of conditions for these negotiators so that they are retained by the public sector and subsequently continue to safeguard the interests of the State. The local professions will definitely be less expensive to afford compared to the foreign negotiators who generally cost a lot more. As mentioned above, if these huge international Companies that are investing in the Tanzania in the Gas industry are represented by experienced and qualified investors, Tanzania does not stand a chance if it does not go through the same lengths and take the similar measures to attain such negotiators. The Companies will always stand in a better position from the initial negotiation period.

The following part of the chapter we will study the various important pointers that in my opinion ought to be stressed on in the course of negotiations. The stress can be given in different modes, this might include expressly mentioning some of the things that we will consider expressly in the contracts or sometimes impliedly through. In the case of the latter however, the negotiators representing the country must be sure to follow up on the agreed issues and follow up on their implementation. Whilst a lot of concentration is placed in the technical and commercial factors, there is lesser focus being given to the other factors such as environmental, social, economic and political. Below we look at the areas that seem to cause problems in the negotiation and agreements overall and the subsequent proposals on how best the Government can deal with these issues. This

[39] Ibid, Page 93

can be through avoiding them or adding them in the negotiations and subsequent contracts and agreements.

Table 6: Negotiating agreements. Source: Humphreys et al "Escaping the resource curse"

• Technical • Commercial	→	More concentration is placed here. More people are recruited by Companies to increase profits and strengthen power. 90-95% of the concentration placed here.
• Environmental • Social • Economic • Political	→	Factors that are relatively ignored in negotiations

4.2.1 Stability clauses.

These are the clauses that restrict either party in the contract for the duration of the contract to remain restricted under the terms of the contract. There are those clauses during the negotiations or even in the agreements can be stated as being indefinite or uncertain because of the nature of what they are related to. To do this will protect the Government by protecting its freedom to alter such clauses, or agreements in the future and prevent it from restricting its right to perform alterations whenever there is a need to do so. Most of these agreement usually run for a long period of time. PSAs for example have an average of 40 years duration period. This is a long time for a party that is at a disadvantaged position, in this case being the Government to withstand losing at the disadvantage of the other party. The best way to explain stability clauses is through

studying the situation in Norway and its agreement with the oil companies. *The Norwegian Government had to entice oil Companies with favorable tax regimes of ordinary or standard taxes (i.e no higher or additional profit taxes) and only a 10% royalty and licensing fee, so that it would invest in the geologically challenging and still uncertain North Sea Oil development. Yet the Government of Norway did not mortgage the country's future by making an initial introductory concession a permanent lifetime one: indeed, it was able nearly to double the maximum royalty rate to 18percent just 3 years after the discovery*[40]. Stability clauses usually cost the Government in the future because of their sense of rigidity. The Government finds itself having to seek approval from the Companies which it has entered the agreement with so that the new proposed changes can apply retrospectively. This is not only cumbersome, but it also causes a lot of problems in cases where the Companies would not approve the amendments so that they may apply to them respectively. The solution to solving challenges caused by the stability clauses would be to set the agreements to be in a way that they are responsive to changes that might need to be done from time to time. Clauses related to tax charges, protection of the environment, labor and other regulations often need to be altered from time to time to ensure that the Government not only places itself on better positions to make the most out of these investments but also these alterations will place the Government on a better position contractually.

4.2.2 Local Community and corporate social responsibility.

This issue has fortunately been addressed in the upcoming natural gas policy. Corporate social responsibility has recently gained a lot of popularity from the corporate world. This is due to the reasoning behind corporate social responsibility. Under this idea, the corporate community has set universally accepted standards that require huge corporations to give back to the community. Giving back in this aspect is a form of neutralizing the negative effects that can be caused by the operation of these investing Companies. Giving back is also supported by the idea that, these Companies are generating a lot of profits and expanding their horizon because of the natural gas that is found in the local community where they carry out their activities. It morally seems best

[40] Ibid, Page 95, Para 2.

that they at least try and give a portion of what is generated to the community through social-economic activities that are funded by the Companies.

It is best to be aware that these matters should be raised during the negotiation stages. If not raised it is highly unlikely that the Companies would offer to play a part in the development of the community at the same level as they would if this factor was placed on the table as well during the negotiations. The aim of most Companies is usually to make as much profit as possible. Asking that they develop the community will obviously reduce these profits, something that is not generally desirable. In short, the Government is a key player in ensuring that these Companies give back to the community through corporate responsibility. If the Government does not adequately raise this issue during negotiations, it is very unlikely that their counterparts will offer to do the same.

On the same note, it is essential at this point to also discuss bonuses. Bonuses are usually paid by international investing Companies to the Government at a fixed rate regardless of the rate of production made in that particular year. Additionally bonuses do not take into account the rate of profits of a project because they are usually negotiated prior to the agreement being executed. Bonuses like corporate social responsibility phenomenon work at the disadvantage of these huge investing Companies and so again it would be in very rare cases that these Companies would offer to pay up bonuses to the host Government in relation to the investment they seek to enter in. The Government must therefore be the forerunner in raising bonuses during negotiations with these Companies for the Government's own advantage.

4.2.3 Additional profit taxation and related factors.

The MPSA rightly discussed this issue at great lengths. The issue of windfalls profits has always been a key point to address in negotiations involving national resources such as natural gas. The Government seems to have tackled this aspect very well indeed. However Humphrey et al further explain that it is not enough for the country to just impose these taxes and require that taxes be paid up by investing Companies whenever they make additional profit, but the Government must ensure that these Companies continue to maintain the level of production or even raise the level of

production during the times when the world prices for natural gas have been elevated[41]. Through the negotiation stage this can be agreed on by the parties in the agreement so that the same in maintained during the times when prices are elevated. Otherwise, during these times, Companies usually deter from over producing because they know that they would be required to pay taxes for the additional profits generated. Making sure that production is maintained ensure that the Government remains on the beneficial end regardless of how the world market stands.

4.2.4 Transparency.

The mining sector in Tanzania for example has continued to receive a lot of criticisms for the lack of transparency in the mining agreements between the Government and the foreign investors. As Humphreys et al states, transparency is the only key to achieving public acceptance of any contract. The transparency that is talked about here should not be interpreted to mean that we are proposing that all clauses in all contracts be exposed for public knowledge and scrutiny, (it is appreciated that some form of confidentiality must be upheld in such contracts), however to disclosure of payments that are made, expected profits to be made by the Government and their counterparts etc. is very essential. The public should be made aware of the state of contracts especially contracts like these which are in relation to national resources. Transparency is sine qua non to dealing with allegations of corruption and misuse of national resources that seem to always surround resourceful industries such as the natural gas industry because it will allow for the related officials' conducts to be scrutinized and properly criticized when the need arises.

5 Conclusion.

The natural gas industry in Tanzania has experienced gradual changes over it during the last two decades. Many investors have commenced activities with the Government through different types of agreements for the development of this sector. But like all types of investments especially those between developing Countries such as Tanzania and international investing Companies, the challenge has always been to balance the interest of both parties. On one hand, the need for the

[41] Ibid

Country to attract as many investors as it can for the development of its natural gas sector and subsequent development and on the other hand, the need for the interests of the Government's resources to be protected for subsequent development.

The problem facing most developing Countries is the increased poverty levels despite the availability of national resources such as natural gas to increase Government revenues and eliminate poverty. This brings the question as to why, the same is not happening. Perhaps the Government is not making the most out of the investment and gaining adequate revenues that would be used in poverty reduction.

This thesis was centered in the natural gas sector in Tanzania and the governing instruments that regulate the sector. In looking at these, we were able to focus on the problems related to both regimes that are currently used by Tanzania in the natural gas sector, i.e. the PSAs and the licensing regime. The biggest challenge being the limited control and sovereignty that the Government afforded in these regimes all to the advantage of the investing Companies.

The thesis concludes by making proposals to the Government that the Government should seek to retrieve control of most of the national resources for the benefits of the Tanzanian citizens and subsequent development. The first step as suggested is the slow introduction of SCs into the system. SCs have been hailed for affording must of the host Governments that use them the opportunity to take control of its natural resources, this being a vital point towards development. There have been additional proposals on negotiating natural gas contracts that if taken into account will prove very advantageous to the host Government.

In our opinion raising the level of control that the Government has over the natural gas sector will without a doubt will increase the amount of revenue due to the Government bringing about sustainable development in Tanzania.