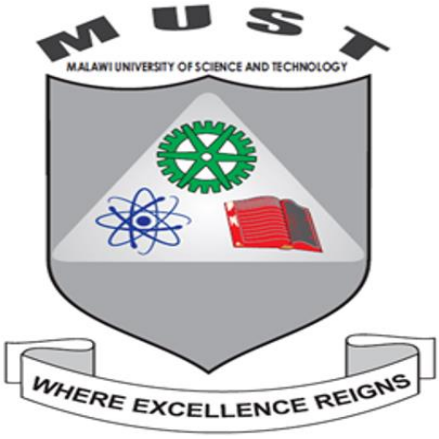


ASSESSMENT OF THE OIL AND GAS PROCEEDS SHARING MODELS USED IN MALAWI BETWEEN INVESTORS AND GOVERNMENT

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THYOLO, MALAWI

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ABSTRACT

Production sharing contract (PSC) is an arrangement used in the upstream sector for the exploration and development of petroleum resources. Several oil producing countries, particularly the developing ones have adopted it as a contract for the exploration and development of their oil and gas resources. Malawi has adopted it for the exploration and development of the offshore and inland basin. This paper examined the concept and general basic features of PSC. It went further to look at the PSC arrangements in Malawi and observed that there are various models of PSC executed in Malawi and identified the significant differences in each one. In addition, it reviewed the Deep Offshore and Inland Basin Production Sharing Contracts Act, 1999 which gave legislative backing to the fiscal terms granted by the Government to certain PSC models. It evaluated the various models of PSC executed in Malawi and ascertained the shortcomings in them. Keywords: production sharing contract, different models of production sharing contract in Malawi.

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ACRONYMS/ABBREVIATIONS

NOCM: National Oil Company of Malawi Limited

NNOC: Nigerian National Oil Company

PSA: Production Sharing Agreement

NOC: National Oil Company

FOC: Foreign Oil Company

PSC: Production Sharing Contract

IMF: International Monitory Fund

MNC: Malt-National Companies

ALSF: African Legal Support Fund

ISLP: International Senior Lawyers Project

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CHAPTER 1

1.0 Introduction

On discovering crude oil, many less-developed countries instantly think of it in terms of the revenue to be make from its extraction, production and distribution. However, to achieve this, they require the services of multi-national corporations who largely possess the technical expertise, capacity to absorb risk and the capital to carry out oil-exploration activities. The oil-rich, less developed countries are therefore compelled to rely on these multi-national oil companies to produce the oil and share the profits with them (Sweet & Maxwell 1996).

This is done by entering into a form of contractual agreement to share the oil produced with the multi-national oil companies in the form of oil taxes or oil profits. This form of operational oil-production sharing agreement is what is called production sharing contract that this study seeks to examine. Production sharing contracts therefore characteristically entail the legal agreement between the host countries and the multinational oil companies to extract oil at its expense and risk with a view to paying oil profit or other compensation at an agreed ratio under the terms of contract (KUGLER, M., 2001).

Some governments win while others loss depending on models of production sharing agreements (PSA) they made with the investors on how to share the revenue realised (Graham & Trotman 1982). This study will look into some previous sharing of the petroleum proceeds between petroleum investors and governments in Malawi and some other oil producing countries.

Production-Sharing Agreements (PSAs) are among the most common types of contractual arrangements for petroleum exploration and development. Under a PSA the state as the owner of mineral resources engages a foreign oil company (FOC) as a contractor to provide technical and financial services for exploration and development operations. The state is traditionally represented by the government or one of its agencies such as the national oil company (NOC).

The FOC acquires an entitlement to a stipulated share of the oil produced as a reward for the risk taken and services rendered (Brock et al., 2007). The state, however, remains

the owner of the petroleum produced subject only to the contractor's entitlement to its share of production. The government or its NOC usually has the option to participate in different aspects of the exploration and development process. In addition, PSAs frequently provide for the establishment of a joint committee where both parties are represented and which monitors the operations. PSAs were first introduced in Indonesia in 1966.

After independence nationalistic feelings were running high and foreign companies and their concessions became the target of increasing criticism and hostility. In response to this the government refused to grant new concessions. In order to overcome the subsequent stagnation in oil development, which was a disadvantage to both the country and the foreign firms, new petroleum legislation was brought in. PSAs were regarded as acceptable because the government upholds national ownership of resources.

The major oil companies were initially opposed to this new contract form as they were reluctant to invest capital into an enterprise which they were not allowed to own or manage (Križ, 2015). More importantly, however, the FOCs did not want to establish a precedent which might then affect their concessions elsewhere. The first PSAs were therefore signed by independent FOCs who showed a greater willingness to compromise and accept terms that had been turned down by the majors.

Furthermore, it has been argued that the independents saw this as an opportunity to break the dominance of the big oil companies and gain access to high quality crude oil (Barnes 1995). Thus challenged, the major FOCs bit the bullet and entered into PSAs (and found that in reality the foreign firm usually manages and operates the oilfield directly). From Indonesia PSAs spread globally to all oil-producing regions with the exception of western Europe where only Malta offers this type of contract.

1.2 Background

This is a study of the oil and gas proceeds sharing models used in Malawi and some other developed countries in Africa between governments or National Oil Companies

(NOC) and the Foreign Oil Companies (FOC) , and the directions this model has assumed in recent years.

There has been reports that African governments losses a lot of profit because of poor negotiation agreements with investors, hence loss most needed revenue and the one contributing factor is lack of good sharing guidelines and human resource capital to negotiate better deals with this petroleum investors. Hence there is need to do some research and studies on how best the sharing agreements can be done and overcome this challenge.

The drafting of Malawi's model PSA began in early 2010. At first, this involved borrowing clauses from other model contracts available in the region. Technical support was provided by a number of international players starting with the Commonwealth Secretariat and later including the International Monetary Fund (IMF), the African Legal Support Fund (ALSF), the University of Dundee, and the International Senior Lawyers Project (ISLP) (Oxfam-2017).

The research for this study will be carried out in Malawi, then from these models will be compared with model of one developed country which is Indonesia where this theory discovered. PSC often contains some terms that offer special advantages to the host country like production bonuses, scholarships, training and grants to government authorities or educational institutions, domestic market obligations and public participation options (Pongsiri, N. 2004).

1.3 Problem statement

Ever since the emergence of the modern petroleum industry at the turn of the last century, petroleum exploration and exploitation in Malawi has been controlled by international oil companies, rather than the host country herself because the latter lacked the capital and expertise essential for the extraction of the resources. Notwithstanding the development of local capability and know-how since the last century, this state of affairs has not changed significantly.

It is probable that this pattern will continue, because Malawi still require foreign risk capital and technology and transnational companies will still need the authorisation of host country to carry out exploration and production operations. As the industry has progressed and governments have become more acquainted with both the technology and the markets, the sophistication of the regulation of the industry has increased.

This sets the stage for the proceeds sharing models between the two actors: the government as the 'landlord' and the company as the 'tenant'. To continually run this business model, a form of petroleum extraction and profit sharing agreement (PSA) is reached and often allegedly skewed in favour of either party depending on certain circumstances like, the holder of the bargaining chip, legal expertise, the desperation of the host country to make huge profits, governmental corruption, tax regime, the licensing regime, the attachment of importance to State's sovereignty over their natural resources and whether the host state is a newly discovered seat bed of natural resources with neither experience nor knowledge.

Petroleum exploration and exploitation by foreign companies in developing countries is therefore an exclusive business in a complex industry. It links governments, owners of natural resources, and companies, investors of private capital, technology, and equipment obligatory for resource development, in a single sector where the stakes and risks, as well as the possible profit margins, can be very high.

Consequently, the questions of how to provide for contributions to the partnership, the allocation of the petroleum profits and oil tax returns, breach of the contractual terms, propensity of a party to cheat the other, the interference of such foreign partnership with state's sovereignty rights over their natural resources, the effect of the oil exploration activities predicated on such concessional or contractual agreements and their socio-economic and environmental impact on the citizens of less-developed host states have always been lingering problems in the arrangement between the two contacting parties.

The issue to be overcome by the end of this study is the losses of Malawi government in oil and gas profits sharing with investors due to poor model of production sharing agreements (PSA).

1.4 Main objectives

The main objective of this research is to come up with the consolidated oil and gas proceeds sharing model to be used in Malawi between government and investors to maximize revenue collection of government.

This research will be the critical analysis of the fundamentals of production-sharing contracts with a view to proffering alternative and more practical solutions than such arrangements have been found to possess.

In addition, this work is concerned with the elimination of possible areas of conflict that could arise within a proceeds sharing models for the exploration and production of crude oil, primarily between a host country and an oil corporation. It further pertains to the design of an oil and gas proceeds sharing models that satisfies the aims, objectives and aspirations of the parties and also remains mutually beneficial to the parties themselves in particular and their transaction environment in general.

Other issues that will be raised in passing will be examples drawn from the impoverished, less developed countries of the world that have, in one way or another, suffered greatly from the activities of the oil companies who have come to exploit their natural resources and unfortunately contributing to their resource curse. Examples will be drawn from such less developed countries as Malawi, the point being that wider issues will need to be considered in future when drawing up oil and gas proceeds sharing models under production sharing agreements.

1.5 Specific objectives

- ✓ Review strength and weaknesses of those agreements
- ✓ Develop a consolidated model that encompasses the strength of reviewed models and improve the weaknesses
- ✓ Recommend the developed model for consideration to be put in use

1.6. Research questions

- ✓ Do we have current sharing agreements of oil and gas proceeds in Malawi and oil producing countries used for profit sharing with oil investors?
- ✓ What are the desirable improvements to those models and how can they be implemented in those countries?
- ✓ Is it possible to come up with consolidated model that has been adopted by Malawi government and other governments in Africa?

1.7. Significance of study

The information will help in bridging a gap needed in addressing the challenges the future model of sharing proceeds will be supposed to be used by government of Malawi.

The practice of entering into production sharing agreements by less developed countries is a burning, contemporary and very controversial issue. It has led to breakdown of contractual economic relationships, attraction of trade sanctions on host countries of foreign investor's investments through unlawful expropriation and non-payment of compensation, diplomatic rows and estranged relationship of host countries and transnational corporation's parent countries, fostered corruption practices and loss of substantial revenue for developing countries.

Thus, this study will highlight the reasons some of these less developed countries of the world exercise caution in going into oil-production sharing contracts with multi-national oil companies and the increasing desire of these countries to empower their state oil companies to take-over their oil production, distribution and commercialisation from the multi-national companies (MNC).

This study will further shed light on the ways these model can be entered into more peacefully and harmoniously. It would equally help in the better understanding of the basis for entering into or refusing to enter into oil-production sharing contracts by the identified less-developed countries and to form a basis of precedence in designing such contracts for similar transactions in other jurisdictions of the world.

The study would therefore become a useful material in the field of oil and gas law and expands the discourse on the contractual and legal relationship between multinational oil companies and their host countries with their attendant issues and the law on one hand and would help in the better formulation of law for heralding the formation of the contracts and making more robust contractual agreements that best suits the interests of both contractual parties and their operating environment on the other hand.

CHAPTER 2

2.0 LITERATURE REVIEW

2.1 Parts of proceeds sharing models in (PSA)

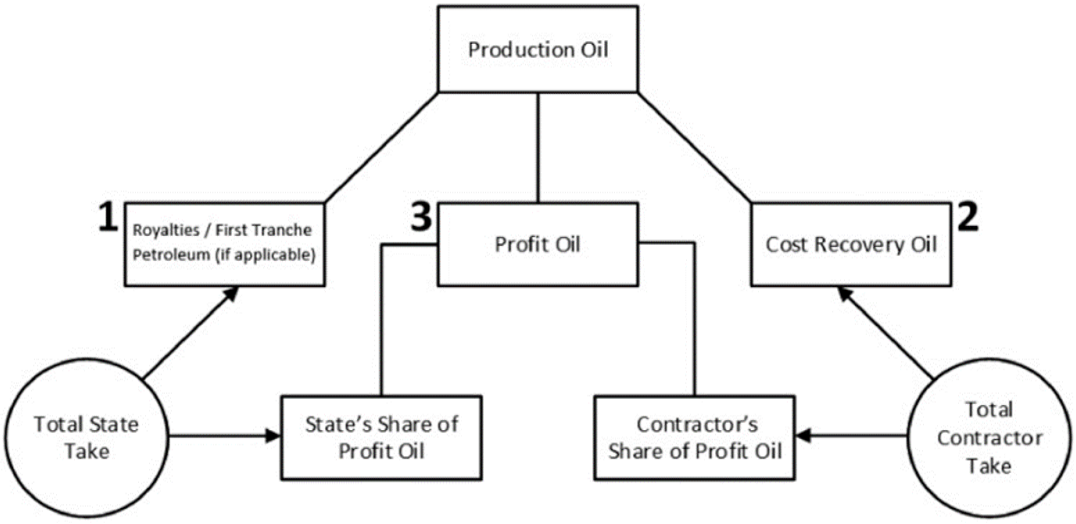


Figure 1 Flow chart showing oil production sharing agreement (PSA)

Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7798991

2.1.1 Royalty

Royalty is first guaranteed minimum revenue flow from the investors to the government regardless of the profitability of the project. It should be pointed out that not all PSAs require a royalty payment.

Malawi had considered imposing a relatively high royalty rate. The provisional royalty rate in the Model PSA of March 2014 was 12.5% with a reduction to 10% for `deep water finds. Similarly, early applications for Prospecting Licences indicated a willingness to agree to a 12% royalty, though with a reduction in the early years. However, later License applications refer to a 5% royalty. The PSAs for Blocks 4 and 5 signed on 12 May 2015 contain a royalty of 5% (Article 30.1).

2.1.2 Cost oil and cost recovery

In Malawi production sharing systems allow the contractor to recover its costs through an allocation of an initial amount of production termed "cost oil". Recovered costs include the exploration for oil, the development of the facilities to produce oil, and the operation of those facilities. In the first years of production, accumulated exploration and development costs normally exceed the value of total production. The model PSA and the signed PSAs have a cost recovery limit of 70% (Oxfam,2017).

In Nigeria up to 40% of available crude oil was set aside as "Cost Oil" for reimbursement of the contractor's allowable costs which include rents, royalties and all operating costs including interest costs on fund borrowed to conduct petroleum operations. This allocation was revised to 50% in 1986. Most contracts have a cost-oil limit of say 50 percent of production although contracts with unlimited cost recovery are also in existence but the level of cost recovery often varies according to the special characteristics of the field.

2.1.3 Tax oil

It is increasingly common for countries employing a production sharing system to also impose a corporate income tax. In fact, in production sharing schemes where the government's share of profit oil is small, like Malawi, corporate income tax can easily be the main source of government revenue. Both the model PSA and the signed PSAs are clear that the company will be liable for corporate income tax. According to Malawian tax law, this would mean a 30% tax rate for nationally registered companies and a 35% tax rate for foreign companies. However, the signed PSAs contain a very unusual clause that will result in a reduction from the standard 30% rate. Specifically, Article 30.10 states that the government agrees to negotiate in good faith a reduction to the rate of corporate income tax at the contractor's request made at any time at least two years following the signing of the contract. Unfortunately, the pattern of offering

project-specific tax holidays, as was done with the Paladin Kayelekera contract, was repeated.

Where as in Nigeria, 55% of the balance of the available crude oil after deducting cost oil was allotted as "Tax Oil" and allocated to the contractor for the payment of Petroleum Profit Tax but if the proceeds of Tax oil were insufficient to pay such tax, the NNOC and the contractor are required to provide the additional amount in the proportion to their participating interest shares at the time such additional amount of Petroleum Profit Tax is payable.

2.1.4 Compensation and Production Bonuses

Generally, PSCs make allowance for a compensation bonus to be paid by the contractor after endorsement of the contract on receipt of the information concerning the acreage held by Geological Surveyor which is to be made available to the contractor. The amount of the compensation bonus varies considerably from one contract to another. Since the amount of the compensation bonus is a matter of tender and negotiation, it is frequently unconnected to the quality and quantity of the information held and offered by Surveyors. The payment for that reason is more in the nature of a "signature bonus" than a payment for information. The production bonus is a compulsory payment by the contractor once production reaches specified levels over a period of time, typically 120 consecutive days. On the other hand, there is distinct pattern as to triggering the levels of production. The number and the amount of the bonuses, which are a matter of bidding, differ from contract to contract, depending conceivably on the geological prospects and the acreage in question. In Nigeria, the 1993 PSC provides that the Signature Bonus must be paid on the effective date of the contract. While the 2000 PSC provides that the Signature Bonus should be paid within thirty days after the effective date of the contract. The 2005 PSC however stipulates that the Signature Bonus must be paid before the execution of the contract. And in all the PSCs different modes of payment for the production bonus has been observed, the 1993 requires cash equivalent of an indicated percentage of production but the 2000 PSC specifies one hundred thousand barrels (100,000 bbls) or cash equivalent for the attainment of each

of the cumulative level of production. The 2005 PSC stipulates a quantity of crude oil or cash equivalent based on the attainment of a certain cumulative level of production.

2.1.5 Production Split or Profit Oil

Profit oil is available to be split between the company and the government at early stages in the project when total investor costs exceed total project revenues but the profit oil provisions in the PSAs for Blocks 4 and 5 signed on 12 May 2014 are more generous to the company and are highly unusual in combining both production volume and an r-factor in determining the split of profit oil.

According to the contract, profit oil will be split based on volume until the top threshold is exceeded, at which point the profit oil split will be based on the r-factor. This could lead to the strange situation where in Malawi prefer a large oil field producing 149,000 bopd would yield a 30% share to the government for its entire life, but if production increased in the early years to 151,000 bopd, the government share would drop 20%. Under these terms, at least 30% of production will always be shared between the company and the government.

Same as in Nigeria the remaining available crude oil after deducting cost oil and tax oil was "Profit Oil" and it was shared in the proportion of 65% for Nigeria National Oil Company (NNOC) and 35% for the contractor but if the daily production of available crude oil exceeds 50,000 barrels per day, participating interests which applied were 70% for Nigeria National Oil Company (NNOC) and 30% for the contractor (Vol.5, No.8, 2015).

If we assume that no royalty has to be paid and cost oil is 50 percent, the profit oil split will be calculated on the basis of the remaining 50 percent of gross production. Thus, the government would receive 60 percent out of 50 percent of production, and the foreign oil companies is entitled to 40 percent out of 50 percent of -total output.

The latter then has to pay income tax on its share of profit oil? In many instances tax is paid by the NOC on behalf of the FOC, or the government forfeits its right to tax altogether. One of the most obvious observations is that variations in the division of profit oil between the two parties cause significant changes in Internal Rate of Return

(IRR) and Net Present Value (NPV). If profit oil is altered from 60/40 (original assumption) to 50/50 and then to 40/60 the IRR increases from 25 to 32 and on to 38 for the low-price scenario in table below. Similarly, if taxes have to be paid by the FOC, a tax holiday leads to a substantial increase in the IRR. This increase becomes larger the higher the oil price. These higher calculations require software and computers.

	1 Barrel – Total income 20.00 USD/bbl	
Investor share		Government share
	Fee 10%	2.00 USD (Royalty)
	Net income 18.00 USD	
5.65 USD (assumed cost)	Cost recovery 27.44%	
4.94 USD	Profit share 40/60 %	7.41 USD
- 1.48 USD	Taxes on income 30%	1.48 USD
3.46 USD	Distribution of cash flow	10.89 USD
24% 3.46/(20,00-5.65)	Profit share	76% 10.89/(20.00-5.65)

Table 1: Showing Cash flow at the end of production (Križ, 2015)

Possible formulas and calculations used to get values in the table above

Total gross income USD/bbl = 20.00USD

Royalty% = 10%

Total royalty = (10/100) × 20.00USD

= 2.00USD

Cost recovery% = 27.44%

Total cost recovery = (27.44/100) × (20.00USD-2USD)

=5.65 USD

Profit share % = 40/60 %

Investor share = (40/100) × (20.00-(2.00+5.65)) USD

= 4.94 USD

Government share = (60/100) × (20.00-(2.00+5.65) USD

= 7.41 USD

Taxes on income % = 30%

Total income tax = (30/100) × 4.94 USD

= 1.48 USD

Distribution of cash flow

Investors = 4.94 USD- 1.48 USD

= 3.46 USD

Government = 7.41 USD + 1.48 USD

=10.89 USD

Profit share %

Investors = 3.46 USD / (20.00-5.65) USD × 100

= 24%

Government = 10.89 USD / (20.00-5.65) USD × 100

= 76%

2.1.6 FTP and investment credit

The new or third generation contracts introduced further changes in the PSC. Cost recovery was rearranged with the introduction of the concept of FTP (First Tranche Petroleum) lather than royalty in the new package. The FTP is a portion of production which is split between the government and the contractor before the deduction of cost recovery; as such it serves as a cap on the cost recovery. Therefore, the contractor can recover its operating costs each year only from the remaining percentage of production after the deduction of FTP. In addition, there was a new provision on these contracts of "investment credit" which accompanied the abolition of the 40 per cent cost oil and was the worst feature of the new contracts. These new developments met stiff resistance from the investing companies as they were perceived as slowing down recouping exploration and development investment and their intention was to facilitate the recovery of cost. Investment credit is taken out of gross production before it is subject to taxation and it is also transferable to succeeding years until it is fully taken. These features are not imposed to the PSA of Malawi and they required further research and observation before using them.

2.2.0 Advantages of (PSA) over other contracts models.

Contract	Foreign Contractor	Government
Concession	all risk/all reward	reward is function of production and price
PSA	exploration risk/ share in reward	share in reward
Joint Venture Pure Service agreements	share in risk and reward no risk	share in risk and reward all risk

Table 2: Summarising advantages of (PSA) over other contracts models.

Under a PSA the FOC receives a share of production as a reward for its investment and operating costs and the work performed. It usually bears the entire exploration cost risk and shares the revenue risk with the host country. The contract is signed before exploration begins and the foreign partner will therefore expect significant rewards later on in the life of the contract (LIU, X. and P. SILER, C. *WANG and Y. WEI, 2000)*.

The FOC's revenue is made up of cost oil and profit oil, while the direct sources of revenue for the government can comprise royalties, profit oil, bonuses, taxes, customs duties, and indirect benefits that arise from price caps and DMOs. PSAs do not divide profits out of market proceeds but instead divide the physical production after allowing a portion of output to be retained by the FOC for the recovery of pre-production and production costs.

This means that costs can only be recovered once oil is produced. A source of disagreement at this point can be the definition of costs. This is the basis for the determination of the profit-oil volume that is the part of production remaining after costs in the form of oil have been deducted.

The sharing of production follows a pre-agreed split between the FOC and the state or her NOC. In theory the state controls the operation but de facto the risk-taking private partner manages the project unless the NOC takes up its option to participate in the venture, which has become more common over time (pandey, 2014).

The PSAs address the important issue of ownership of oil reserves which has made this contract form politically acceptable in most developing countries. Before the introduction of PSAs the concession agreement vested, for all intents and purposes, the ownership with the foreign company at the wellhead. Under PSAs reserves and all installations and plants built by the FOC are government property.

The PSA is attractive to foreign firms, particularly those based in the USA, because they can book the reserves in their balance sheets notwithstanding the fact that they do not own them. It seems that the rationale is that the company is entitled to produce for a long period of time, in many cases for as long as the field is alive. During this time it can book the reserves because of access rather than legal title.

A PSA does not allow for up- or downgrading of the contract terms once the exploration period comes to an end and information about the exact size and characteristics of the deposit is available. The same problem arises at the start of exploration because the work obligation during this phase is finalised before work begins. It would appear that it is in the FOC's interest to have a short initial exploration period and then negotiate the work programme for subsequent phases if these are needed. Once development commences cost oil enables the FOC to recover its costs even if the project is not profitable.

Under different contract forms costs are often deductible from taxable income which in the case of PSAs is the FOC's profit oil. If the project does not realise any profit then there might not be a taxable income against which to deduct costs. With cost oil, however, at least part of the expenditure can be recovered provided there is some cash flow. Not surprisingly, FOCs are therefore keen on high cost recovery limits and some PSAs indeed set the maximum cost oil at 100 percent.

2.3.0 Challenges and their mitigations of the proceeds sharing models in (PSA)

The problem for the government is that the higher the cost recovery the lower the nominal profit oil to be shared between the parties. One way around this dilemma is to impose royalties thereby generating a guaranteed minimum revenue stream. Depending on the discount rate marginal projects might not be profitable if the fiscal system is not sufficiently geared towards economic rents (NADIRI, M.I., 1991).

Governments have recognised that this kind of rigidity can work detrimentally to their goal of maximising revenue. Thus, most PSAs now offer sliding scales for the calculation of profit oil. We have shown that such a sliding scale is particularly effective if it is based on the FOC's rate of return. These so called R-factor sliding scales indicate that contracts have become more profit related (LIPSEY, R.E. and F. SJÖHOLM, 2001).

However, if the contract parameters are badly structured they can still work as disincentives in a low oil price scenario. If the oil price is high economic rent is large. Even if the government take is great the project is likely to be profitable for the FOC in which case a badly structured scheme is not a disincentive.

As shown in the table below where by challenges and their mitigations of the PSA in Indonesia are summarised.

Problems	Solutions
According to FTP conditions, 20% of production is given to the government before operating costs are reimbursed. This type and level of effective royalties impose high fees (taxes) on large oil basins and can inhibit investment, especially at oil prices	The portion of FTP oil received by the government should be reduced.
	FTP tax should be paid gradually after deducting the balance of accumulated unrecovered costs.
Low price paid to contractors for fulfilling obligations to supply oil to the domestic market	Contractors must be paid the international price for any supply to the local market.
	Indonesia's national refineries and marketing industry should be liberalized. Subsidizing the oil supply price on the domestic market should be abolished
Contractors must be paid the international price for any supply to the local market.	Contractors should be provided with a large share of production in order to offset additional investment risks and costs.
Indonesia's national refineries and marketing industry should be liberalized.	
Subsidizing the oil supply price on the domestic market should be abolished.	
The increase in the government's share of oil/gas profits is associated with a complex set of field profitability indicators.	The conditions of the PSC should be changed to build a direct link between the government's share of profit and the profitability of the field.

	Transition to a system in which either oil or gas profits (tax or royalties) are distributed according to the investor's realized return.

Table 3: Analysis of problems and possible mitigations for the development of the PSC system in Indonesia.

CHAPTER 3

3.0 METHODOLOGY

3.1. Study Area

The research for this study is carried out in Malawi particularly on petroleum sharing agreements in upstream sector across the country in all potential petroleum production areas. Malawi's geology suggests we stand a chance of finding oil and gas reserves.

Discoveries in Tanzania and Mozambique have increased interest and expectations about what may lie beneath our land and lake. In 2009, regulations established six large blocks for exploration, and licences were subsequently awarded to some companies. The Ministry of Natural Resources, Energy and Mining granted oil exploration licences which were divided in six blocks across the country with block 1 which covers Chitipa and part of Karonga being awarded to South Africa's Sacoil Holdings, blocks 2 and 3 stretching from parts of Karonga, Rumphi, Nkhata Bay and Nkhotakota to UAE firm Hamra Oil, Rakgas MB45 got blocks 4 and 5 while Pacific Oil Limited had block 6.

3.2. Research Design

Qualitative analysis of the proceeds sharing model in PSA by Policy analysis on PSA, Economic analysis of PSA, Social analysis of PSA, Technological analysis of PSA, Ecological analysis of PSA and Legal analysis of PSA (PESTEL).

3.2.1 Political analysis of PSA

Methods of selecting government officials to participate and present ideas with the foreign investors is affected by political will. Also mostly contracts are signed by politicians on the government side for example ministers, who are most of the times are politicians. In 2014 minister offer exploration licence to some foreign investors in Malawi.

3.2.2 Social analysis of PSA

Mining and extraction of minerals and hydrocarbons is done on areas where people hosted by the same land. Mining and oil companies must construct community infrastructures such as hospital, school, roads and boreholes or pipe water.

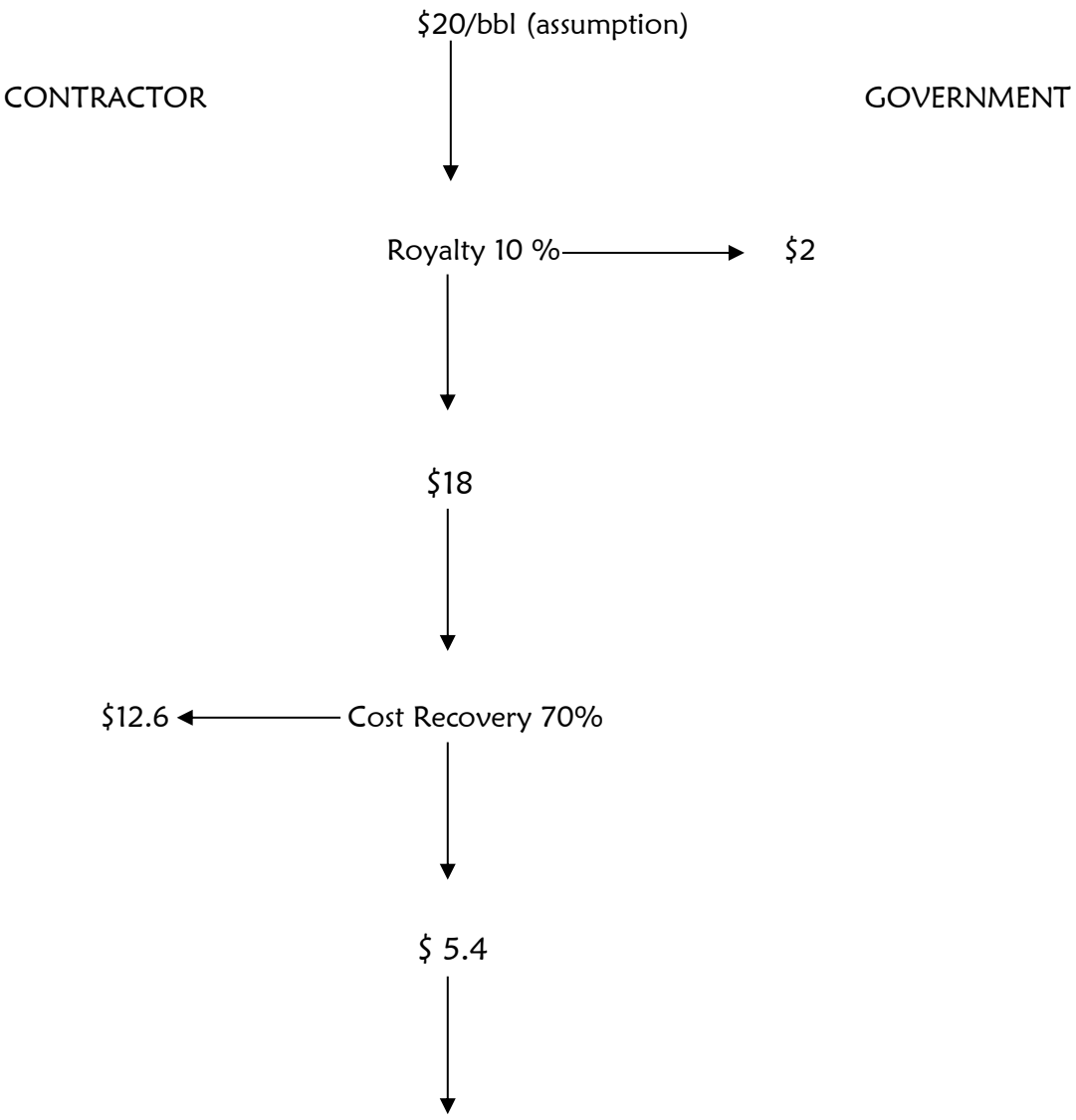
3.2.3 Technological analysis of PSA

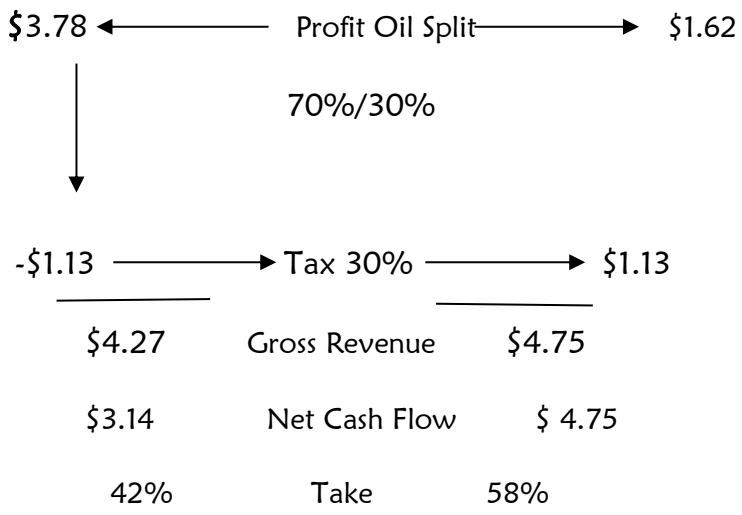
PSA prefer state owning of the materials and equipment which are bought by the companies. Almost all the countries using PSA such as Nigeria and Uganda used this system.

3.2.4 Legal analysis of PSA

The PSA model follows the Exploration and Production Act and liquid fuel and gas Act. The methods of signing and obtaining licenses depends on the Acts. For example period of contracts, who offer the licenses and license fee. Process to get exploration and production licence and relinquishment of the contracts (PAIN, N., ed. (2001).

3.2.5 Economic analysis of PSA





Flow chart showing economic analysis of oil and gas production sharing agreement model (PSA) in Malawi

The equations used for proceeds sharing models in the PSC cash flow

Gross revenue = Oil or Gas production × Revenue (3)

Royalty = Gross revenue × Rate of royalty (4)

Cost recovery or cost of oil or gas = intangible capital expenditure + operating expense + DD&A if gross revenue is greater than zero: up to a maximum rate (cost recovery limit) of gross revenue (5)

Total profit oil or gas = gross revenue − Cost recovery (6)

Contractor (IOC) profit oil = total profit oil × profit split (7)

Income Tax = Contractor (IOC) profit oil × Tax rate (8)

Contractor (IOC) After Net Cash Flow = Gross Revenue − Intangible cost − Tangible Capital Costs − Operating Expenses − Total profit oil + Contractor Profit Oil − Income Tax (9)

3.3. Data collection

For this study, both primary and secondary sources of data collection have been relied on. The primary data was obtained from the senior officers of the oil companies involved in production sharing contracts through the questionnaires. The questionnaires were intended to be as simple as possible for the easy understanding of all the respondents concerned. It contained personal data information and information relating to joint venture and production sharing contracts management processes, performance and technology application and investment risk. Personnel interviews with selected employees were also carried out to supplement the questionnaires.

Secondary sources included proceeds sharing models used in Production Sharing Contracts. The main substance of this research is therefore based on books, judicial decisions, journals and including various countries' constitutions and on the opinion of other researchers (Brinn, K.W. et al. 1986).

The decided cases are the financial decision national on production sharing contracts, foreign investments and host countries versus multi-national companies' contractual conflicts. Other secondary sources include monographs, news bulletins, oil production reports, newspapers and magazine publications as well as materials sourced from the internet. These materials shall be subjected to context and contextual analysis to achieve both the main and specific objectives of the study (MACDOUGALL, G.D.A., 960).

3.4 Scope and limitation of study

The scope of this study is the analytical study petroleum sharing contracts in less developed oil-producing countries especially Malawi and some selected jurisdictions, the attendant conflicts raised by such proceeds sharing models, its impact on the host countries and their citizens, the workability, functionality and sustainability of the models, legal consequences in case of breach and way forward to making more effective

and workable production sharing agreements that protect the interest of both contractual parties, the growth of the oil industry and their operating environment (OMAN, C. 2000).

In achieving this study's objective, I have paid visits to the Ministry of Mining, Energy and Natural Resources using their library to research primary documents and engage in discussions with their staff. However, these visits took place a considerable time ago and it has not been possible to revisit for updating purposes in this regard, but in spite of these, this research will be conducted with the available data information, resources and secondary data comprising the work of distinguished published authors.

In a similar vein, endeavours to carry out legal research in Malawi stumble upon several formidable obstacles. Firstly, there is no institutionalised public distribution of Malawi statutes or regulations, hence it is almost impossible to find complete sets of laws or to remain abreast of recent developments, more so that most of the enabling laws are obsolete due to lack of legislative review.

CHAPTER 4

4.0 RESULTS AND DISCUSTION

4.1.0 Results

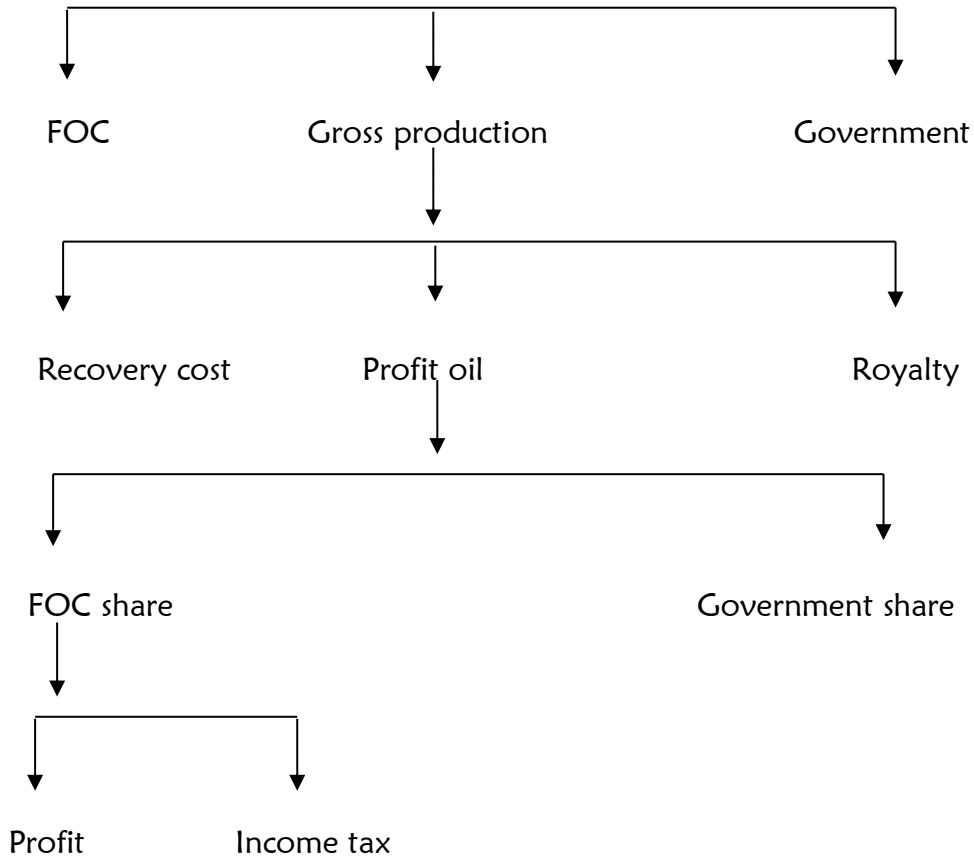
4.1.1. Introduction to results

The results from different observations are summarized inform of tables and graphs for easy data presentation and interpretation. The two colours are used to present government gains and contractor gains in chart where by blue represent government's gains and the red represent contractor's gains.

4.1.2. The basic features of a proceeds sharing model in Malawi

The figure below illustrate the basic feature of a proceeds sharing model in Malawi

From 2010 up to 2022



Flow chart showing basic features of PSA

4.1.1. Royalty, cost recovery, profit share and income tax in Malawi

The government of Malawi developed model in 2010 up to 2013 in reaction to coming of the petroleum exploration and production investors. There were several petroleum upstream drafting which covered direction to be followed by government and contractors on social, economic and political activities in upstream. Table below shows the barrel distribution between investors and government in Malawi.

	Total Barrel	
Investor share		Government share
	Fee 15%	(Royalty)
	Net income	
70% (assumed cost)	Cost recovery 70%	
70%	Profit share 30/70 %	30%
-30%	Taxes on income 30%	+30%

Table 4: Table below shows the barrel distribution between investors and government in Malawi

4.1.2. Profit split or profit oil share in Malawi

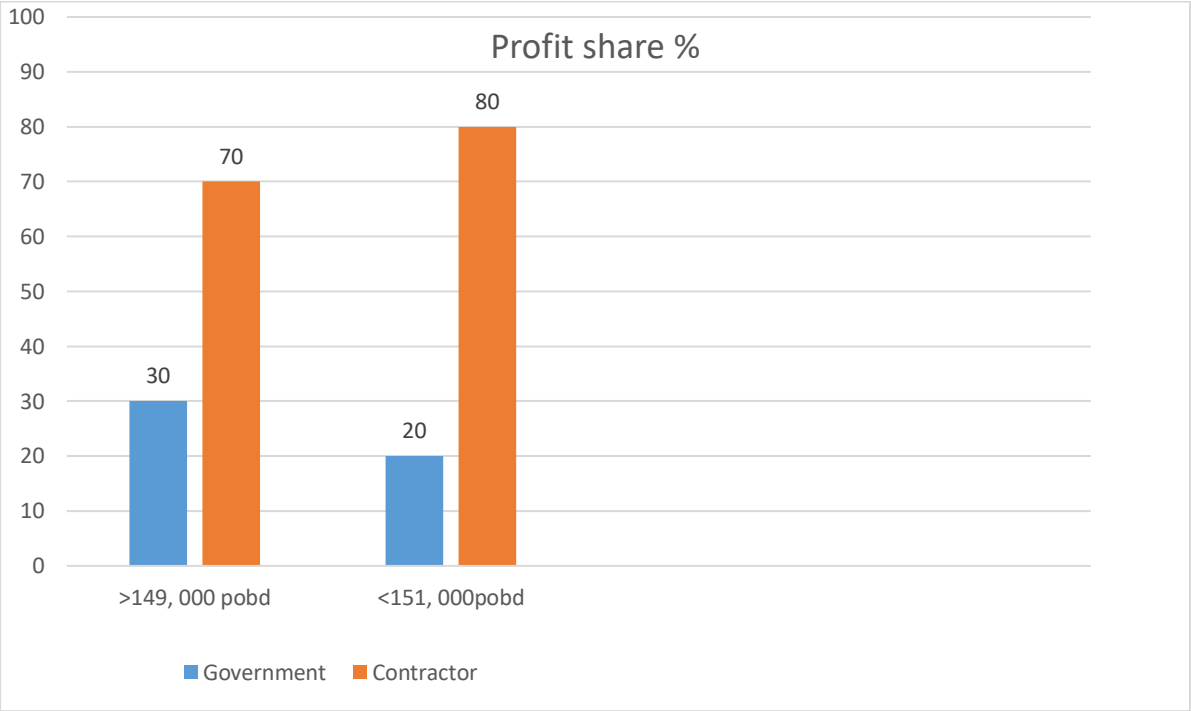


Figure 2: Bar chart showing profit oil split in Malawi

4.1.3 Royalty varies depending on the rate of production

The stage of activities and rate of production in oil and gas exploration and production should be considered in order to boost the

4.1.4 Comparative analysis of PSA in Malawi, Nigeria and Indonesia.

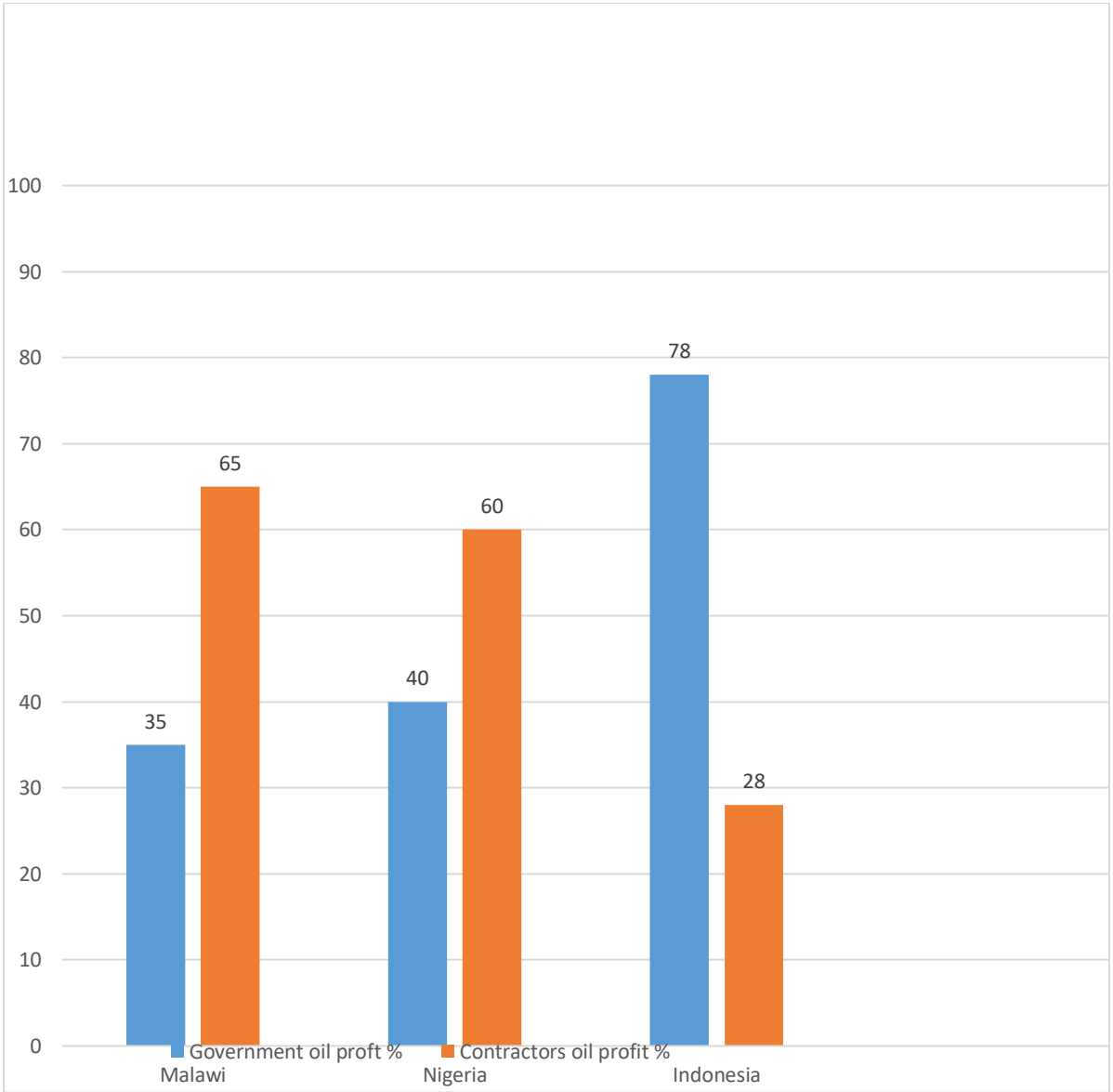


Figure 3: Bar chart showing Comparative analysis of PSA in Malawi, Nigeria and Indonesia

4.2.0 Discussion

When designing a fiscal system model or proceeds sharing model a government aims to maximise revenue from its natural resources while at the same time providing

sufficient inceptives to foreign investors. The oil industry relies on many different contract forms. One of the most widespread type is the production-sharing agreement.

Under a proceeds sharing model the FOC receives a share of production as a reward for its investment and operating costs in form of recovery cost or cost oil and profit oil share. The contract is signed before exploration begins and the FOC expect to return their expenditures when production of oil starts.

On other hand, government of Malawi as landlord expect to receive money from FOC before exploration starts by awarding exploration licence and more revenue when oil discovered at the exploration site where by government award a new licence which is production licence and also receives royalty in form of oil or money depending on agreement with the contractor.

Beside royalty and licences, government share profit oil with contractor and also charge tax on income of the FOC which currently is 30%.

Comparative analysis of proceeds sharing models in three countries which summarised in above which shows that only Malawi has a challenge of contract relinquishment by FOC which is 100% while in other countries is almost 0%. Currently Malawi is experiencing relinquishment of exploration contracts by FOC which is caused by several factors. In 2019 many FOC relinquished their contracts due g to economic challenges caused by COVID 19.

The higher percentage of the royalty, income tax, bonuses and licence fees remove interest of foreign investors to invest in the country (African Development Bank, 2009). The higher the cost recovery the lower the nominal profit oil to be shared between the two parties (Oxford, 1999)

CHAPTER 6

6.0 RECOMMENDATIONS

The government of Malawi should concentrate much on resolving issue of contract relinquishment by contractors. The government should have to participate in upstream activities in front of FOC.

This can be happened by extending the work of national oil company known as National Oil Company of Malawi to cooperate with foreign upstream oil companies. This board under the 2004 act of was made to conduct the upstream activities in Malawi on behalf of the Government but currently NOCMA take part in only downstream activities.

The research recommend the reduction of the area covered by one block. The royalty should differ depending on dairy rate of production like in Uganda. For example Indonesia used a zero royalty model in order to attract foreign investors this is best way to the countries like Malawi that require much effort to promote under development of the upstream activities and the royalty can be increased over time in new contracts as the reservoirs are found. First priority to Malawi is attraction of foreign investor since no one currently have licence in upstream activities in Malawi.

The new model developed by this pater prefers the following changes: 1 block should cover the area > 1000km² < 5000km², royalty should change from 0% - 30% depend on daily production, recovery cost 70%, profit oil 30/70%, income tax 30-50%.

In old division of the blocks, area covered by one block were very large which reduces number of licenses by contractors and also coming of many other investors because almost all the potential areas were signed by six licenses.

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8.0 Appendices

8.1 Appendix 1: Survey data collection instrument

Online interviews through email

TO: date……

Ministry of Energy and Mines,

Private Bag 350,

Capital City,

Lilongwe 3, MALAWI

E-Mail: mmnre@sdnp.org.mw

Dear Sir/Madam,

Elaboration on kind of data collection.

I am writing in reference to the above title for the nature of data I want to collect in order to achieve the objectives of my study (Assessment of oil and gas sharing proceeds models used in Malawi between investors and government).

The following data sets shall be required;

1. Report on how oil and gas blocks were divided by Ministry of Mining, Energy and Natural Resources

2. Records on how charging and awarding of exploring and production licences conducted by ministry

3. Report on reasons why Government of Malawi prefers PSA in the management of fiscal regime in petroleum upstream

4. Outline of the strengths and weaknesses of the PSA

5. Records on the reasons for the following percentage sharing of crude oil in production

a. Royalty 12.5% onshore and 10% offshore

b. Cost oil and recovery 70%

c. Corporate income tax 30%

d. Bonuses 0% (such as signing and production bonuses)

e. Contractor profit 70% at 149,000 bopd and 80% at rate greater than 151,000 bopd

f. Government profit 30% at 149,000 bopd and 20% at rate greater than 152,000 bopd

This type of data should be for a period of eight years from 2013 to 2021. The information collected will be kept confidential and be used for academic purposes only.

Your usual cooperation in this matter this regard is highly appreciated.

Regards

Felton Chapita