RESOURCE TAXATION AS A TOOL FOR DEVELOPMENT

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ABSTRACT

Development is a topical issue. The question of how to bring it about often attracts different answers. An answer for countries rich in natural resources is to use wealth from resources to fund development initiatives. The thinking is that revenues from natural resources should translate into a higher standard of living for the people living in these countries. This, however, has not been the case for many resource rich countries. They have been plagued by a phenomena referred to as the “resource curse”. Large resource endowments appear to move development in a backward direction. This study will attempt to show that large resource endowments do not need to be associated with the resource curse. It shall examine the resource curse and the merits of using tax resources as a means of avoiding the curse and achieving development goals. It shall examine the concept of taxation in general and resource taxation particularly. A chapter shall examine the resource curse as it relates to development and another to taxation and development. This paper shall conclude that guided and informed attention to tax policy and its implementation may be the starting point in turning around the resource curse into resource blessings for the people of resource rich nations.

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1.0 INTRODUCTION

Taxation is a major national issue in most countries and is often problematic in its imposition, administration and subsequent use.\(^1\) This nature contrasts with its obvious benefits to society. It is a tool for societal development and also a means by which the rewards of development are redistributed. There are however contrasting individual goals for societal development \textit{vis a vis} personal development. What is clear to all is that taxes are generally unavoidable and are certain.\(^2\) Collected taxes are expected, by residents, to meet their social and development needs.

What development is varies from country to country. It can however be seen generally as adding value, that is, improving on existing social infrastructure, services and provision of these were they do not exist. The UN Millennium Development Goals (MDGs) ambitiously aims to set development targets for all nations.\(^3\) Its Zedillo Commission estimates an annual average of $50 billion to meet the goals.\(^4\) Governments are therefore in need of development finance if they are to achieve these and other goals.

\(^1\) Historically, for example, an issue that galvanised Indians against British rule was a tax on salt. See L. Fischer, \textit{The Life of Mahatma Ghandi} Harper & Brothers; [1st ed.] edition (1950). In modern times, the Poll Tax introduced by the Margaret Thatcher led Government in Great Britain is often cited as the cause of her removal from power. See J. Gibson, \textit{The Politics and Economics of the Poll Tax: Mrs. Thatcher's Downfall}; (1990) (Warley, EMAS)
\(^2\) Daniel Defoe was first to use the popular expression “death and taxes” in referring to life’s certainties, in his book \textit{Political History of the Devil} (1726) Kessinger Publishing 2003.
\(^3\) The International Development Goals for 2015 adopted by the UN Millennium Summit in September 2000 See the Millennium Development Goals in \url{http://www.un.org/millenniumgoals/} (Last visited on 12 September 2008)
In resource rich countries, taxation of the typically big companies that work in the sector is therefore a big issue. Residents link the level of development to the contributions of these companies to the Government from their operations. Companies dealing with hydrocarbons are most unique in this regard. Royal Dutch Shell, for example, in 2007 made an annual profit of US$27.56 billion.\textsuperscript{5} The Government faces the delicate act of balancing national interest and maximising government revenue against the goal of attracting foreign investment for the exploitation of its natural resources.\textsuperscript{6} The arena for doing this is in the design of fiscal regimes for petroleum exploitation.

### 1.1 CONCEPT OF TAXATION

Taxation has expressed itself in different forms, from when it was imposed on cooking oil by Egyptian Pharaohs through to its first imposition in Great Britain by the Roman Empire up to its current forms.\textsuperscript{7} Today similar forms of taxes are imposed in different nations and are generally imposed on rewards on additional value created or income earned. It is defined as a compulsory levy made by public authorities for which nothing is received in return.\textsuperscript{8} Common taxes include Income Tax, Capital Gains Tax, Payroll Tax and Value Added Tax (VAT).


\textsuperscript{7} See A History of Taxation http://www.taxworld.org/History/TaxHistory.htm (Last visited 27th January 2008)

1.2 PETROLEUM TAXATION

Taxation of natural resources, particularly petroleum, is unique and has assumed a separate or special status. This is expressed by countries enacting special legislation dealing with it. Government extracts rent through different mechanisms and the fiscal system has to be viewed as a whole. Taxation through tax laws is often complemented by contractual provisions that impose tax like burdens on the investor. It may be a Tax/Royalty system or a Production Sharing System other systems that exist are usually variations of these. Generally, the first level of taxation is the petroleum law.\(^9\)

The tax/royalty regime is the modern form of what used to be referred to as a concession. It is distinguished from the old concessions that contained onerous terms against the host government and in favour of the International Oil Company.\(^{10}\) The system imposes a royalty usually based on production and imposes a profit based tax.\(^{11}\) Its main provisions are a royalty (usually \textit{ad valorem}) and corporate income tax. These are supplemented by bonuses, State participation, domestic obligations, import export duties, local taxes and similar obligations.

\(^9\) In the UK, the Oil Taxation Act (c.22) (1975), the Finance Act (2006), the Income and Corporation Taxes Act (1988) provide for the fiscal system that applies to oil operators. The UK operates a royalty / tax regime. In Nigeria, the main tax Act is the Petroleum Profits Act CAP 354 Laws of the Federation of Nigeria 1990.
\(^{10}\) P. Andrew-Speed, “Issues in the Design of Fiscal Regimes” \textit{Lecture Notes Delivered at CEPMLP, University of Dundee}, 2007
\(^{11}\) See \textit{Supra} note 9.
The Production Sharing Contract (PSC) is a system that places the status of the company as merely a contractor to the host State or host State oil company and the company profit is derived only from a share of production. The PSC has become hugely popular particularly among countries that were once colonially controlled. It was introduced in the 1960’s by Indonesia.\textsuperscript{12} The components of the PSC, in its simplest form, are a cost recovery mechanism which allows the company to recover its costs and may have a cost recovery limit; a profit oil split and taxes. Their provisions may vary from one country to another.

### 1.3 ECONOMIC RELEVANCE

For most major producer nations petroleum revenues are central to the economy, in some cases critically so. Table 1 shows the relative petroleum dependence of some producers. It is worthy of note that some of the major exporters, Venezuela and Nigeria, have a higher dependency on petroleum for their GDP. While this is less so for more developed countries, it however accounts for 50\% of exports from Norway. Petroleum, once you have it, assumes an important role in economic calculations and development plans.

In a multi billion dollar industry, with government take sometimes as high as 90%\textsuperscript{13} residents and indigenous peoples expect that oil wealth will be translated to certain minimum standard of living.

Table 1.0 Relative Petroleum Dependence

<table>
<thead>
<tr>
<th>Petroleum accounts for</th>
<th>%GDP</th>
<th>%Gross Rev</th>
<th>% Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>40</td>
<td>70</td>
<td>95</td>
</tr>
<tr>
<td>Norway</td>
<td>10</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>Indonesia</td>
<td>10</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Algeria</td>
<td>30</td>
<td>65</td>
<td>80</td>
</tr>
<tr>
<td>Venezuela</td>
<td>28</td>
<td>55</td>
<td>70</td>
</tr>
<tr>
<td>Mexico</td>
<td>2</td>
<td>30</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: World Bank\textsuperscript{14}

This has been far from the case in many oil producing countries. The popular sentiment over the last forty (40) years has gone from resource nationalism to labelling petroleum resources as a curse. The idea that resources have not brought in the expected development but countries very richly endowed have remained poor or a majority of the

\textsuperscript{13} D. Johnston, “Petroleum Tax Design” delivered at; Workshop on Petroleum Revenue Management Oil, Gas, Mining and Chemicals Department of the WBG and ESMAP (Washington, DC, October 23-24, 2002)

local people are even worse off have led to the term “resource curse”.\textsuperscript{15} Whether the clamour is for nationalisation in Venezuela, or for a greater share of oil revenues in Nigeria the goal of the people in these countries is the same; that oil revenues be transformed into social and economic development.

1.4 TAX AND DEVELOPMENT

Taxation is an important tool to meet the above mentioned needs of the people of resource producing States. Development can be viewed as social, economic and legal. Economic development may be measured by the growth of business activity within a country. This can be achieved, in tax terms, by a tax system that is neutral. A neutral tax system is one that does not distort business activity. Therefore, irrespective of the tax rate, producers and consumers will continue to operate as though the tax was not imposed at all.\textsuperscript{16} Legal development is the establishment of a tax legal regime that encourages both economic and social development. Social development is the redistribution of wealth within a society. Lack of it is a major driver behind the labelling of natural resource endowment as a curse. Particular focus will, in this paper, be on social development.

This paper shall examine the potential of tax systems and international arbitration as tools for development. It shall conclude that an efficient and appropriate tax regime is the right tool for turning the resource curse into resource blessings. It shall also consider how

\textsuperscript{15} For a more detailed discussion on resource curse, see P. Stevens, “Resource Impact - Curse or Blessing? A Literature Review” 25\textsuperscript{th} March 2003 Available at http://www.dundee.ac.uk/cepmlp/journal/html/Vol13/article13-14.pdf (Last visited on 12 September 2008)

\textsuperscript{16} See Supra note 10
establishing the appropriate economic and legal regime will encourage development. Chapter two will consider and examine the various approaches to capturing economic rent for the host State. The third chapter will consider different tax laws and designs; it shall also consider the principles underlying them. The focus of the fourth chapter shall be an analysis of the concept of resources as a curse rather than a blessing. Chapter five will look at taxation as a tool for development. It shall do this by highlighting effective legal tax structures which should underlie resource taxation. It shall further consider the administration and enforcement of resource taxation. Chapter six shall consider the use of arbitration as a method of resolving disputes that can hamper development initiatives. Finally, chapter seven will conclude this paper.

2.0 APPROACHES TO CAPTURING ECONOMIC RENT

Economic rent is the difference between total revenues and costs plus a minimum return for the investor. Governments always seek to capture as much economic rent as possible through taxation and similar means.\textsuperscript{17} In capturing rent, governments design fiscal regimes to encourage a broad range of projects. The crucial thing is to have ongoing projects in exploration, development and other areas of the value chain while at the same time capturing a high share of project rent. This often involves a distinction made between big fields and small fields or for maturing provinces, as in the UK, between new

\textsuperscript{17}D. Johnston, \textit{International Exploration Economics, Risk, and Contract Analysis} Tulsa Oklahoma, Penn well Corporation, 2003
players and old ones.\(^{18}\) Closely related to the concept of economic rent are the concepts of neutrality and progressive fiscal regimes.

A tax is said to be neutral when it neither causes over investment nor affect the decision to invest. Neutrality is discussed further in Chapter 3.

A progressive fiscal system is one that increases the tax rate as the tax base increases. Personal income taxes are usually progressive in this manner. The flip side of this is one that increases the tax rate as the base shrinks, this makes them regressive.\(^{19}\) Most petroleum fiscal regimes include an element, like royalty, that make them regressive.

### 2.1 Profit Based Taxes

As the name implies, these taxes focus on revenues less costs. They are therefore made only on a projects upside and will leave something for the investor irrespective of margins. It is therefore a progressive means of taxation as it will not change investor decision to invest. It should also encourage a broad range of activities. Examples of profits based taxes include the United Kingdom’s Petroleum Revenue Tax\(^{20}\) and Nigeria’s Petroleum Profits Tax.\(^{21}\) A disadvantage of this form of taxes for developing

\(^{18}\) The United Kingdom has abolished Petroleum Revenue Tax for North Sea operators given development consent after 16\(^{th}\) March 1993.

\(^{19}\) See Supra note 10 at p.5.6

\(^{20}\) See Oil Taxation Act (1975)

\(^{21}\) Petroleum Profits Act CAP 354 Laws of the Federation of Nigeria 1990
nations however is that their effective imposition requires a strong institutional capacity for its administration and this is however currently lacking in many of these countries.\textsuperscript{22}

2.2 Revenue Based Tax

These are taxes levied as a percentage of production and the best example is royalty. The benefit of these taxes to the government is that it provides early revenue and its simple to administer. Revenue for government is therefore assured regardless of the outcome, in profit terms, for the investor.

However the royalty element is often the principal culprit in analysis of regressive fiscal regimes\textsuperscript{23}. This is due to its insensitivity to profits. Royalty increases government take as project profitability decreases and reduces it as profitability increases. The insensitivity of royalty to profit also means that it leaves the investor in an uncertain position as the royalty may be a substantial part of after tax profit or may even equal it. Royalties remain a common feature in the oil fiscal systems of many major oil producers including Venezuela, Malaysia and Nigeria.

2.3 Flexibility

In order to address market volatility, continue to attract investments and at the same time achieve a progressive fiscal system it is important to design responsive fiscal systems.

\textsuperscript{22} See \textit{Supra} note 14 at P. 12  
\textsuperscript{23} See \textit{Supra} note 14 at p.154
Such systems may address the problem of taxes that would otherwise behave regressively.

Flexibility can be achieved through the use of sliding scales. Royalties for instance, can be progressively increased as production increases. A royalty of 5%, for example, can be imposed on the initial 10,000 BOPD and this can be increased by 5% when an extra 10,000 BOPD is produced. Only the extra barrels produced will be subject to 10% and not all production. All barrels above 20,000 may then be levied at a flat rate Table 2.0 illustrates:

**Table 2.0**

<table>
<thead>
<tr>
<th>Average Daily Production</th>
<th>Royalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 10,000 BOPD</td>
<td>5%</td>
</tr>
<tr>
<td>10,001 to 20,000 BOPD</td>
<td>10%</td>
</tr>
<tr>
<td>Above 20,000</td>
<td>15%</td>
</tr>
</tbody>
</table>

One crucial aim of flexibility is to attempt to meet both the needs of government and the investor. The Rate of Return (ROR) system is one adopted by some countries and appears to meet this objective.

Here, the company is guaranteed a predetermined threshold rate of return plus costs before the government receives anything. Government take is therefore adjusted as a function of the rate of return achieved by the investor. Government take is achieved by accumulating negative cash flows and compounding them at a threshold rate until
cumulative value becomes positive.\textsuperscript{24} A good example of the ROR system is the Resource Rent Tax (RRT) in Papua New Guinea.

\subsection*{2.4 Government Participation}

The desire by government to participate in its oil industry is a reason for preferring a Production Sharing arrangement over a royalty tax one. Participation is done, typically, through a national oil company (NOC). The NOC on behalf of the government partners with the investor in the different stages of the value chain. The reasons for participation in this way have been divided into commercial and non commercial reasons.\textsuperscript{25} The commercial reasons include an increased financial benefit beyond taxes \textit{strictu sensu} while the non commercial incentives include job creation, development of local technical capacity and general development needs. Today, the financial justifications may efficiently met by other and more easily administered means such as the royalty tax system. Most producer nations have moved beyond those situations that justified the non commercial reasons.


3.0 PETROLEUM TAX LAWS AND DESIGNS

3.1 Tax Principles

This paper has already briefly considered a few tax principles. The principles below include criteria by which fiscal regimes are evaluated and they are important to investors before deciding to invest.

3.2 Efficiency and Equity

A tax is said to be efficient when it receives revenue for government without significantly altering the behaviour of economic actors and distorting their behaviour. The key for a host government here is achieving a balance between not taking too high rent and not taking too little. This is directly related to the earlier discussed principle of neutrality; a neutral tax is likely to be an efficient one.

The general layman’s idea of equity is fairness; this is also what it means in general tax terms, that is, fairness in tax imposition and administration. In resource taxation equity relates firstly, to the ability of the investor to pay the taxes imposed. Secondly, it measures the benefit that the investor makes by paying the tax and finally, there is a

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revenue maximisation approach to it, that is, how much will all stakeholders (the government and the investor) get.\textsuperscript{28}

3.3 Neutrality

This has briefly been discussed above. Neutrality of a tax has the effect that when the tax is levied the productive and allocative efficient outcomes without government sector shall continue. This is essentially an economist perspective.\textsuperscript{29} A neutral tax will reduce revenue at the disposal of the investor, it will however not affect his decisions on Production, trade and consumption. Neutrality as a taxation principle and as a government policy is therefore directed at investor behaviour.\textsuperscript{30}

A tax remains an obligation to the investor and is considered a cost. The tax rate therefore invariably receives attention from him. Where the tax is too high it will deter investment in exploration, where it is too low it will encourage over investment, either way the tax is inefficient as discussed above.

\textsuperscript{28} Supra note 10 at p. 5.4
\textsuperscript{29} J. Otto et al, Global “Mining Taxation Comparative Study” Institute for Global Resources Policy and Management, Colorado School of Mines. 1997.
MC represents the aggregate marginal cost curve of production for the mines. Each mine has a different cost of extraction. The marginal cost curve MC is sloping upwards, meaning that the most profitable mine is exploited first. The diagram depicts economic rent as the difference between the price available for the product and its cost of production. The triangle PTS therefore represents the economic rent available to the government without altering investor behaviour.\textsuperscript{32}

There are many advantages to having a neutral tax regime. Since it captures pure economic rent the fiscal regime will encourage a wide range of activities from exploration to production. In addition, investors will be encouraged to invest for the long term, as opposed to a regime that is not neutral and therefore creates an incentive to get as much oil out of the most profitable fields as soon as possible (known as high grading). A neutral fiscal system imposes a tax only when the company has made a profit, thereby

\textsuperscript{31} Ibid.
\textsuperscript{32} Ibid.
encouraging investment in different grades of fields and as a consequence increasing government revenue.

Adopting a neutral tax regime is a good initial step for a government seeking to increase economic and social development with revenues from resource exploitation.

3.4 Stability

Stability of a fiscal regime is the likelihood that it’s terms shall remain unchanged. The oil industry has inherent in it long lead times and investment of substantial time and resources. Stability provides a basis for planning and allocating resources and effort. It also gives an investor a basis for making projections for income. The consequence of this is that investors will be more willing to invest in stable fiscal systems than in countries where governments make frequent changes to their fiscal regimes or, where they invest in unstable regimes, they place a risk premium on their discount rate.

Fiscal stability is dependent, primarily, on two factors: the stability of government policy and the flexibility of the fiscal system. The former relates to the use of stabilisation clauses in contracts to constrain the ability of governments to alter the fiscal regime from what obtained when the investors initially came in or alter a contract from the date of execution, that is, to freeze it. The later relates to achieving stability through flexibility. As discussed already, this is the ability to adapt to changing circumstances such as

market fluctuations. Taxes that are directed, as much as possible, to profit are flexible in this way.

3.5 **Imposition and Administration**

Imposition is the setting of variables for each of the tax instruments in the fiscal regime. Imposition occurs whenever new taxes are levied or when existing taxes are increased.\(^34\) The imposition of taxes relates to its administration and its efficiency can be assessed by its imposition.

The task of administering tax is a continuous one from one fiscal year to another. Administration is very important and if not done properly it could render an otherwise good fiscal system ineffectual. In fiscal system design Proper attention is to be paid to administration. It should be transparent and fair and simple. Bad administration has been identified as the bane of fiscal systems for some developing countries.\(^35\)

3.6 **Petroleum Tax Laws and Designs**

The above principles are basically directed to the twin objectives of capturing full economic rent for the State and attracting investment to keep economic activity going in the oil industry. They have thus been adopted in the petroleum laws of different countries. In what ways have petroleum laws been drafted or fiscal systems designed to

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\(^{34}\) See *Supra* note 10 at p.5.16

\(^{35}\) See C. McPherson, *Supra* note 14 at P. 34
give effect to the above principles? This sub chapter shall answer the question by examining features of fiscal systems that give effect to these principles and Chapter 5 shall examine their provisions in relation to development based on development criteria in chapter 4.

3.6.1 The United Kingdom

The fiscal system of the United Kingdom in the context of this discussion can best be understood historically. It is a tax/royalty system and has progressively attempted to be more efficient and equitable. In a bid to encourage investment in marginal and high cost fields the government, having licensed very big and profitable acreage, abolished royalty in 1982 and the petroleum revenue tax (PRT) was abolished for all new fields receiving development consent after March 15, 1993\(^\text{36}\).

With the removal of the royalty element taxes are now principally the Corporation tax and the supplementary charge. These are based on profit and therefore to a large extent meet the requirement of neutrality. The Supplementary charge and PRT attempt to be flexible by their ability to change. However, the continued changes introduced through the amendments to the Finance Act have given an appearance of instability. This has consequences for the raising revenue to meet UK development needs. Investors are continually getting drawn to new and more attractive geological acreage in other parts of the world, including the old Soviet bloc and offshore West Africa. The UK however, is a maturing province and requires continued investment in the North Sea with state of the art equipment. In order to achieve this, fiscal stability is crucial.

\(^{36}\) See Supra note 9
3.6.2 Brazil

Table 3.0 reveals Brazil’s federal system of taxation; taxes are collected at the federal, State and municipal governments. The petroleum industry principally deals with the federal government on tax issues. Government enters into Production Sharing Contracts with operators and royalty starts at 10% lowering to 5% when geological risks, production expectations and all relevant factors are considered. This provision is aimed at making the fiscal system neutral and not deterring investments in fields that are not as profitable. In this regard, attention will be paid to production in remote areas, reserve estimates, heavy oils and similar factors.

Companies are subject to a federal income tax of ranging progressively from 15% to 27.5% depending on the tax payers ability to pay. On the federal level the oil company is further subject to a tax known as Contribution on Economic Activities (CIDE) at a tax rate of 10%.

The government has a history for stability in oil contracts and the fiscal regime. It put in place a tax benefit system called REPETRO which allows for suspension of taxes for importation of certain equipment used in the country and which are returned to their country of origin after they are used in Brazil. This attractive law was set to expire in 2007, the government however, before its 6th bid round, lengthened its life to 2020. This underscores its commitment to stability and to attract investment.

37 Regulation of the Petroleum Industry in Brazil; Law No. 9478 of August 6, 1997
The government has removed constitutional barriers to the private participation in the petroleum industry in a bid to attract foreign investment. Recently, an estimated 700 million barrels of crude was discovered in the Papa - Terra field in the country’s Campos basin. If, however, the government is to attract investment Brazil must simplify its complex federal tax structure. State and municipal taxes often overlap with and the cost to paying imposed taxes increases the burden on investors.

3.6.3 Indonesia

Indonesia has the credit of having developed the first Production Sharing Contract (PSC). Its fiscal system, mainly composed in the contract, has no royalty. The investor will enter into a PSC with Badan Pelaksana a new government management company which replaced PN Perusahaan Minyak Nasional (PERTAMINA). It will hold a stake of up to 50% in Joint Operating Agreements (JOA). As with PSC’s there is a profit oil split and the contractor is allowed up to 80% cost recovery for the what is known, uniquely in Indonesia, as first tranche petroleum. The investor is subject to pay income tax, withholding tax, capital gains tax (CGT), stamp duty and value added tax (VAT).

The non inclusion of royalty is an indication that the government aims at creating a neutral fiscal system and thereby make it progressive.
3.6.4 Nigeria

Nigeria imposes a Petroleum Profits tax on taxable profits of petroleum companies at the rate of 85%. Companies are also to partner with the Nigerian National Petroleum Corporation (NNPC) in production sharing contracts.

The fiscal system seeks to achieve neutrality and be progressive by adopting sliding scale royalties and making a distinction for tax purposes between deep water and other fields. Companies are also subject to other taxes and local obligations. There has been a constant push by local oil producing communities for a greater share in the country’s oil wealth. These have ranged from civil protests to disturbing kidnappings of oil company staff. The country therefore faces an urgent need for development and all stakeholders; the government, companies and the people have a lot to gain by such development.

4.0 THE RESOURCE CURSE AND DEVELOPMENT

Resource dependent countries appear to face unique challenges in their attempts at attaining development goals. These challenges may be summed up as the resource curse. The mere abundance of natural resources however, is not likely to be the major source of the curse. Botswana is an example of a resource rich country that has performed well economically. While some resource rich countries have done well others continue to labour under the “curse”.

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39 Petroleum Profits Tax Act Chapter 354; Laws of the Federation of Nigeria 1990
4.1 The Resource Curse

A lot of work has been done on the concept of the resource curse.\(^{41}\) The hypothesis generally is: that large resource endowment has had the effect of not fuelling economic growth but cause a halt in economic growth, conflict and corruption. Many culprits are often identified either solely or in conjunction with others as its source. The next few paragraphs shall explore the different approaches to the source of the resource curse.

4.2 The Dutch Disease Approach

Dutch disease can be understood as a notion that large resource endowments, an increase in resource outputs or in prices will result in an appreciation of the real exchange rate and a decline in the manufacturing sector.\(^ {42}\) Additionally, high oil revenue dependence subjects the economy to fluctuations of an increasingly volatile oil market. This dependence on resources cause the non booming export sector and other sectors including manufacturing to get crowded out by the resource export sector.

The name originated from the experience of the Netherlands in the 1960s after it discovered huge oil deposits in the North Sea. The find had the paradoxical effects of


increasing the value of the Dutch Guilder but made non-oil exports less competitive. The Dutch disease model has also been used to examine the Spanish economy in the 1850s after when there was a large flow of gold from the Americas.\textsuperscript{43}

W. Max Corden and Peter Neary gave an economic model for the Dutch disease.\textsuperscript{44} They hypothesise that a resource boom will have two effects on the economy, firstly, the resource movement effect and the spending effect. The resource boom will shift both labour and resources away from other sectors of the economy to the resource sector thereby causing both “direct and indirect de-industrialisation”.\textsuperscript{45}

A drawback of the Dutch disease approach to explaining the resource curse is that it leads to the conclusion that resource rich countries will perform poorly when oil is doing well and they will perform well when oil does poorly.\textsuperscript{46} This however is not consistent with the facts as recent oil price increases appear to have benefited resource rich countries and their economies are showing GDP growth.\textsuperscript{47}

The revenue based taxes discussed above may also add to the Dutch disease. This is because fiscal systems based on it are designed to always bring in revenue for the


\textsuperscript{44} M. Corden, and P. Neary, “Booming Sector and De-industrialisation in a Small Open Economy” in \textit{The Economic Journal} Vol. 92, No. 368. (Dec, 1982), pp. 825-848

\textsuperscript{45} \textit{Ibid}


\textsuperscript{47} See the World Penn Tables, \url{http://pwt.econ.upenn.edu/php_site/pwt62/pwt62_retrieve.php} (Last visited on December 26, 2007)
government regardless of contractor costs. The government therefore tends to heavily rely on the resource industry and neglect other tradable industries.

4.3 Rent Seeking Theory

The rent seeking theory approach to the resource curse is that oil makes enormous rent available that businesses and governments engage in rent seeking activities to appropriate the oil rent and leave other productive activities.48 They engage in activities that lead to voracity, corruption and conflict which crowd out other activities that lead to economic growth.49 Lane and Tornell50 describe a voracity effect that accompanies a terms of trade windfall. The presence of powerful groups in countries without strong institutions leads to disproportionate fiscal redistribution and slow growth.

Rent seeking has also been linked to corruption.51 The presence of huge resources and weak political institutions make corrupt practices easier, this stagnates economic


growth. Leite and Weidmann argue that natural resource abundance increases rent seeking behaviour and corruption.

Hausman and Rigobon describe it as the common – pool problem, caused by situations were costs are shared by everybody and benefits are private.

The fiscal policy in such an economy is therefore likely to be non neutral as undue attention is focused on the oil industry.

4.4 Volatility

Rents from natural resources tend to be volatile. Typically, they have low price elasticity of supply. A shock to the oil price in an economy based on oil will mean a shock to the economy. Economic growth has been linked with volatility. The study carried out by Ramey and Ramey of 92 countries show that the higher the volatility the lower the economic growth.

A volatile economy is an unstable one; it creates uncertainty and makes the planning difficult. This increases the discount rate at which businesses do business and may

52 Ibid
54 See supra note 48
56 Ibid
determine whether they come in to do business in both oil and non oil sectors and may therefore slow economic growth.

### 4.5 Bad Institutions

A different approach to explaining the resource curse is bad institutions. Resource rich countries have among them countries that do well and those that do poorly. This theory claims that the differing experience of resource rich countries is due to the quality of their institutions. It also postulates that the use to which countries put their revenues from resources play a role, in this regard institutions may be divided into producer friendly institutions and grabber friendly institutions. Public institutions of countries that suffer from the effects of the resource curse are ravaged by corruption and ineptitude. They are grabber friendly and where and they reduce per capita income. However, good institutions raise income.

This theory is lent credence from the experiences of countries that are also resource rich but with stronger institutions like; Botswana, Norway and Canada and other countries that appear to suffer from the curse like Nigeria, Angola and Venezuela.

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58 Ibid.
59 Ibid.
4.5 Non Resource Taxation

In addition to the above, the resource curse may also be explained by the neglect in taxing other productive areas of the economy by resource dependent countries. Due to the very high oil revenues, taxation is either highly inefficient or nonexistent. In these cases, regressive fiscal systems may be a major driver as economies with such fiscal regimes focus on the resource sector for most tax receipts. This is because, at least for a period, irrespective of profitability the government is always assured of rent.

The concept of the resource curse is a development issue. Where a country is associated with the curse, it is because in spite of its resource strengths it continues to perform poorly economically and this hampers development. Another expression of the curse is conflict and violence. In Nigeria, the Niger Delta region of the country produces the bulk of its oil. The indigenous peoples of the region have for years complained that oil wealth has brought no good to them, instead it has reduced their ability to engage in other productive activities like fishing. Their expressions of anger have grown from verbal to violent. Militant and armed youth have openly threatened to disrupt the activities of oil companies and kidnap oil company staff. They have constantly carried out these threats.

In April 2007, a militant group, the Movement for the Emancipation of the Niger Delta (MEND) claimed that it will stop oil production in the Niger Delta. These occurrences

62. Interview with MEND spokesperson Jomo Gbomo (Pseudonym) in *The Humanity* magazine April 2, 2007 p.8
have international consequences; by May 2007 Nigeria’s oil production had been cut by 25%.\textsuperscript{63}

Wealth from natural resource has also been identified as the source of financing for local militia groups with devastating consequences such as civil war.\textsuperscript{64}

Wide scale poverty is another symptom of the resource curse. Resource dependent countries have to grapple with deep economic imbalance. The curse implies that wealth is available but unevenly distributed. In countries with large populations and different cultures the uneven distribution of wealth is sometimes seen as deliberate or as neglect.\textsuperscript{65}

The regional economic imbalance within resource producing States is often a consequence of large oil deposits being located in a comparatively small region or part of the country. the Siberian oblast of Tyumen produces about two-thirds of total Russian oil, the Nigerian Niger Delta holds most of the country’s oil reserves, oil production in Colombia is located in two provinces and in Argentina the Neuquén province produces more than a third of the country’s total output. The incidence of this is has been that some part of the country fares better than other parts of the country; in some cases the oil producing areas are worse off.\textsuperscript{66}


\textsuperscript{65} See the above discussion of Nigeria.

\textsuperscript{66} See U. Ukooha, \textit{Supra} note 62
Outside the United States of America, petroleum resources of most producer nations are owned by the central government. This means that for the development and resource blessings to spread to the regions, states and provinces they require the funds to be transferred from the central government to the regions. This paper advocates for a form of fiscal federalism in the division of resource wealth among the different levels of government. Adopting and enforcing such a structure will serve to reduce the imbalances within a country. Further, this form of fiscal arrangement may be applied to different types of government structure.

In addition, administration of the tax system and public institutions is crucial to alleviating the effects of the resource curse and bringing about much needed development. The next chapter in considering the relationship between resource taxation and development will consider these issues. It will also address the issue of transparency and its use in ensuring that funds realised from resources are applied for the development ends of the people.

5.0 Taxation as a Development Tool

Achieving meaningful development will require national wealth to be directly applied to the lives of residents generally. Taxation can be used as an instrument to bring about development and alleviate the effects of the resource curse through its distribution structure, administration and control. This chapter will consider general criteria and
principles through which the above may be achieved. Their application may be more conducive to some countries than to others.

5.1 Fiscal Federalism

A method of distributing wealth based on federalism will allocate more revenues to subnational governments. This method of wealth redistribution will be aimed at reducing both conflict and under development by bringing development revenues closer or directly to the people. Also, giving a greater share of resource wealth to the subnational governments will reduce the need for large, poorly managed central institutions. It may be achieved in any of the following systems discussed below.

5.1.1 Revenue Sharing Systems

Tax Base Sharing

Resource wealth may be redistributed by Tax Base Sharing; through this means, the subnational government may levy taxes on resources exploited in its jurisdiction. It is then free to determine the tax base and rate.\textsuperscript{67} There may, in addition, be overlapping of the tax base so that more than one level of government may have access to the same tax base.

Tax Revenue Sharing

Here, the revenue accruing to the subnational governments, the tax rate, and the tax base are determined by the central government. This is a common system among federal

\textsuperscript{67} G. Brosio, “Oil Revenue and Fiscal Federalism”, \textit{Fiscal Policy Formulation and Implementation in Oil Producing Countries} p.257 (Eds. J. Davis, Ossowski, and A. Fedelino, Washington D.C. International Monetary Fund Publication Services, 2003)
countries such as Brazil, Nigeria, Australia and Canada and non federal countries like Colombia, Papua New Guinea and Italy.\textsuperscript{68}

Revenues may also be shared through means other than taxation. The central government may enter into joint venture contracts with the companies and also raise revenue from the bidding process. It may then transfer the revenues to the sub national governments.

\textit{In - Kind Revenue Sharing}

Companies may be required to provide infrastructure to the communities from which they exploit resources. The local communities will get their share of the resource wealth this way. This type of revenue forms an important part of budgetary considerations in Papua New Guinea for example.\textsuperscript{69}

These systems are not necessarily mutually exclusive. In providing resources to the sub national governments due attention should be paid to the producing areas, however other parts of the country may be “balanced out” through the use of equalisation funds. This is revenue kept aside in a fund for the use of non producing communities; it is in use in countries like Bolivia and Colombia (See table 3.0 below). In Bolivia, up to 10\% of taxes on oil are distributed by the \textit{fondo Compensatorio Departmental} to provinces with below the national average per capita royalties.\textsuperscript{70} Alternatively a sophisticated fiscal system may

\begin{flushleft}
\textsuperscript{68} \textit{Ibid}\textsuperscript{68}
\textsuperscript{70} See Law 1702 of 1996 (\textit{Ley de Participacion popular}, 1994)
\end{flushleft}
be created to give benefits of resource revenue to non producing areas as well in fiscal allocations.

Table 3.0 shows the fiscal sharing systems for some countries.\textsuperscript{71}

<table>
<thead>
<tr>
<th>Country</th>
<th>Onshore production</th>
<th>Offshore Production</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Share of Royalties exceeding 5% of Value of production distributed 52.5% to producing states, 15% to producing municipalities; 7.5% to transporting municipalities and 25% goes to the federal government.</td>
<td>Royalties referring to the continental shelf are distributed as follows: 22.5% to facing producing states; 22.5% to facing producing municipalities 7.5% to transporting municipalities. 7.5% to Fondo Especial to be distributed to all States and municipalities. Remaining Share goes to the federal government</td>
<td>Law 9478 of 1997. The proceeds of the first 5% share are distributed according to Law 7990 of 1989</td>
</tr>
<tr>
<td>Canada</td>
<td>Provinces are free to Levy taxes and royalties on natural resources</td>
<td>The federal government has the right to levy royalties.</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>The Constitution mandates 13% of total oil revenue to be distributed to producing States</td>
<td>Royalties are determined by the federal government and shared 40% to the</td>
<td>Constitution of the Federal Republic of Nigeria (1999)</td>
</tr>
<tr>
<td>Russia</td>
<td>A petroleum royalty with a tax rate of 6-16% is shared: 40% to federation; 30% to producing</td>
<td></td>
<td>Russian Federation Law of</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
<th>Subsidy</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>Oil royalties are allocated to provincial governments. Also, 25% of collections from a hydrocarbons tax is allocated to them.</td>
<td>federation and 60% to producing oblasts.</td>
<td>1 See Law 1702 of 1996 (Ley de Participacion popular, 1994)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>70% of royalties from the sale of oil and natural gas will go to the provinces of Aceh and Irian Jaya. Other provinces receive 3% of royalties on oil and 6% on gas. Local governments receive 6% on oil and 12% on gas</td>
<td></td>
<td>Minning Royalties ACT 1992</td>
</tr>
<tr>
<td>Argentina</td>
<td>Royalties are imposed up to a ceiling rate of 12% is paid to the producing provinces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>States are free to impose excise tax on onshore projects and coastal waters. The States share the royalties on coastal waters with the Commonwealth.</td>
<td>The Commonwealth imposes a Petroleum Resource Rent Tax (PRRT) or crude oil excise and royalty on offshore projects. It shares royalty with the States. The PRRT on offshore projects is shared 25% federal and 25% to Western Australia</td>
<td>Subsoil,1992.</td>
</tr>
</tbody>
</table>

The tax base sharing method will have the effect of removing attention by the people and sub national governments from the national government for all major revenue, 72

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72 Gold and oil are extracted in Western Australia. Coal is produced in New South Wales and Queensland.
additionally the central government will diversify its focus for national revenue from natural resources and thereby reduce the potential of having the symptoms of the resource curse. This may be done by discriminating between offshore in favour of the national government and onshore production in favour of the sub national government. Canada uses such a system and it is not a country that is associated with the resource curse. Also in Australia, States are given control, to a large extent, over onshore projects.

True fiscal federalism will bring national wealth directly to the people and measures such as the equalisation fund described above or a system that equalises itself will allow for an equitable distribution of wealth among producing and non producing sub national governments. Revenues will be closer to the people and the central government will spread its focus to other areas of revenue generation. The above will also deal with volatility, as the national government will diversify its sources of revenue and no longer anchor it on one source.

5.2 Administration

Establishing a sound fiscal structure will amount to little where its administration is handicapped. Due attention has to be paid to transparency and the ability of the system to be administered effectively and efficiently. It should be kept transparent and simple; transparency will be discussed later under the Extractive Industries Transparency Initiative (EITI). The structure of the tax system should make it accommodate as many activities as possible to avoid opportunities for evasion due to gaps in the system and to encourage as wide a range of activities as possible. In addition, because the tax systems
as a whole includes the Memorandum of Understanding (MOU) or the Production Sharing Contract (PSC), good administration will include determining government take at the outset of negotiations and by what means government will take.

The Institutional capacity for collecting revenue from the companies that work in this area should be built up to match the high level that the companies have. It is suggested that a special payment structure for these officers should be considered otherwise the government may be unable to compete with the companies for the best human resource. Officials have to be trained in verifying tax returns and ensuring that the right amount is collected. Computerisation of the revenue collecting services is also important to keep accurate records and for efficiency in meeting public needs. Where tax revenue is properly administered it will increase the revenues that accrue to the central government and the sub national governments. Where more tax powers are given to the sub national governments, they will have to build the institutional capacity to collect revenues from companies operating within their jurisdictions.

The building of institutional capacity to tax will have to cut across both the resource and non resource sector. This way government will be able to build the increase its revenue from different sectors of the economy. This will shift the focus from resources alone and may reduce the crowding out of other economic activities.
5.2 **Extractive Industries Transparency Initiative (EITI)**

As noted above, transparency is important to the administration of oil resources. An open system of dealing with resource revenues can act as a check on abuse of powers and corrupt activities by those entrusted with managing these resources. Ill functioning institutions and corruption, as noted above, can give rise to the resource curse. State ownership of natural resources means that money has to flow from government to the people. It also increases dependency on the State and few individuals gain control of the machinery of State and its resource wealth. An oil boom then transforms into a bust. Transparency in dealing with Natural resources is therefore important to ensure that funds from resources meant for the people actually get to them.

The Extractive Industry Transparency Summit was initiated by the former Prime Minister of the United Kingdom, Mr. Tony Blair, in 2002. The initiative seeks to increase transparency in payments made between companies working in the extractive industry and governments. The EITI is driven by the assumption that the resource curse is caused in large part by the lack of transparency and accountability in payments made by companies to governments.\(^\text{73}\) It has a wide list of stakeholders which includes public institutions, private sector and civil society. This anticipated wide involvement will help to put pressure on the institutions and private sector to comply with its objectives. Implementing the EITI requires, among others: regular publication of all material oil, gas and mining payments from companies to governments in a widely accessible way,

\(^{73}\) See *Extractive Industry Transparency Initiative Source Book* p.2 (Published by the EITI secretariat in the UK Department for International Development, March 2005)
subjecting payments to independent audit, that the approach be applicable to all companies including government owned companies and the involvement of the civil society in this process.\textsuperscript{74}

The EITI, where it is strictly implemented, may reduce corrupt practices by involving the civil society in the governance of their resource wealth. This may also have the effect of curtailing the rent seeking behaviour discussed above.

However, for the EITI to be fully effective the people have to be educated thoroughly on what it means and the possible impact it can have on them. There also has to be general education on the responsibilities that government bears in respect to resource wealth.

Today, the EITI depends on voluntary reporting, this may allow companies to avoid its obligations based their disclosure agreements, the initiative will be more effective if it is made mandatory upon governments and companies to obey its terms, and this may be achieved through legislation.

Further to the above, a coalition of over three hundred (300) Non Governmental Organisations initiated the Publish What you Pay scheme. It calls on companies and

\textsuperscript{74}See Extractive Industries Transparency Initiative website http://eitransparency.org/eiti/ (Last visited on January 11, 2008)
governments in the resource producing countries to publish the details of payments made to governments.\textsuperscript{75}

The above efforts complement each other in seeking transparency in the use of natural resource wealth. Nigeria, Azerbaijan and Yemen are some of the countries that have met the EITI criteria to become candidate countries. There are no countries that have achieved fully compliant country status yet.\textsuperscript{76}

7.0 Conclusion

Resource taxation policies and structures that are transparently and efficiently administered can be an efficient tool to change the fortunes of resource dependent countries. Taxation should be used as a tool to ensure that public wealth directly affects the lives of the people. To do this, the appropriate fiscal structures should be put in place, public institutions have to be strengthened, well trained personnel need to staff the revenue services and corruption should be addressed by institutionalising transparency in dealings between the government and oil companies.

The fact of resource endowments does not doom resource rich countries to a cursed existence. Diversifying government’s revenue base may be essential to curtailing the effects of the resource curse. It may do this by giving more powers over resources to the sub national governments, the central government will therefore be constrained to

\textsuperscript{75} It was initiated by the following N.G.O’s Global Witness, CAFOD, OXFAM, Save the Children UK, Transparency International UK and George Soros of the Open Society Institute. See The website at \url{http://www.publishwhatyoupay.org/english/} (Last visited on 12 September 2008)

\textsuperscript{76} See Supra note 74
encourage other areas of economic activity. A change in focus to the use of taxation to achieve development goals may be the start of a turnaround from the resource curse to resource blessings.