PROTECTION OF PETROLEUM RESOURCES IN AFRICA: A COMPARATIVE ANALYSIS OF OIL AND GAS LAWS OF SELECTED AFRICAN STATES

by

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I declare that the '**PROTECTION OF PETROLEUM RESOURCES IN AFRICA: A COMPARATIVE ANALYSIS OF OIL AND GAS LAWS OF SELECTED AFRICAN STATES**' is my own work and that all sources that I used or quoted have been indicated and acknowledged by means of complete references.

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Date: November 2013

ABSTRACT

The resource curse is a defining feature of the African continent. Despite its vast resource wealth, Africa remains the poorest and most underdeveloped continent in the world. The aim of this study is to conduct a comparative analysis of the primary laws regulating of oil and gas exploration and production activities in Angola, Nigeria and South Africa in order to determine their effectiveness in protecting the continent's depleting petroleum resources. Different regulatory models apply to Angola, following the Norwegian carried-interest model; Nigeria, where a British discretionary model has been retained; and South Africa, where a unique model has been developed. The comparison is conducted by analysing and comparing these different regulatory systems in terms of legal frameworks; the legal nature of the regulatory systems; ownership of the oil and gas resources *in situ*; methods of acquiring rights to oil and gas resources; legal nature of right to oil and gas resources; legal nature of licenses; organisational or institutional structures; fiscal systems; local communities benefits from the proceeds of oil and gas resources; local content; state/government participation arrangements; and environmental challenges. The study evaluates the effectiveness of these regimes by examining the extent to which they recognise and enforce state ownership of the oil and gas resources *in situ*; recognise and enforce the doctrine of Permanent Sovereignty over Natural Resources (PSNR); protect the environment; how they provide for institutional capacities for the management of resources; and the protection of local communities form exploitation and abuse by recognising their rights to benefit from revenues derived from these resources. An overall assessment of the three systems reveals that there is no ideal model for oil and gas regulation in Africa. The Norwegian model might well be considered an ideal model if it was applied with care and correctly in Angola. The study hopes to gain practical importance for the proper regulation of the oil and gas industries' upstream activities in Africa and assist governments of the selected jurisdictions in their policy revisions, as some recommendations are made.

Key terms: oil and gas law, petroleum, licences, discretionary system, carried-interest system, royalties, bonuses, revenues, fiscal system, corruption, local content, production sharing contract, service contract, concession, permanent state sovereignty over natural resources, ownership, regulatory framework, the ‘resources curse’, the ‘Dutch decease’, environment degradation.

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To my lovely daughters Naledi and Omphemetse this work is dedicated to you. It should inspire you to become better persons in your future careers.

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ACRONYMS

ABET	Adult Basic Education and Training
ACHPR	African Charter of Human and Peoples Rights
AGF	Associated Gas Framework Agreement
AJIL	American Journal of International Law
ANC	African National Congress
APPA	African Petroleum Producers Association
Aramco	Arabian Oil Company
AU	African Union
BEE	Black Economic Empowerment
BGC	British Gas Corporation
BIT	Bilateral Investment Treaty
BNA	National Bank of Angola
BNOC	British National Oil Corporation
Bpd	barrels per day
BRICS	Brazil, Russia, India, China, and South Africa
BSCF	Billion Standard Cubic Feet
CABGOC	*Comphania de Combustiveis do Lobido* or Cabinda Gulf Oil Company
CDDRL	Centre on Democracy, Development, and the Rule of Law
CEF	Central Energy Fund
CIT	Corporate Income Tax
DA	Democratic Alliance
DEEC	Department of Energy and Climate Change
DER	Department of Energy Resources

DME	Department of Minerals and Energy
DMR	Department of Mineral Resources
DPR	Department of Petroleum Resources
EBIT	Earnings before Interest and Taxation
EC	European Community
ECOWAS	Economic Community of West African States
EEA	European Economic Area
EEC	European Economic Community
EFCC	Economic and Financial Crimes Commission
EEZ	Exclusive Economic Zones
EGAS	Environmental Guidelines and Standards
EIA	Environmental Impact Assessment
EIU	Economist Intelligence Unit
EMP	Environmental Management Plan/Programme
ESKOM	Electricity Supply Commission
EU	European Union
FACOC	Forum on China-Africa Cooperation
FEPA	Federal Environmental Protection Agency
FESA	*Fundacao Eduardo dos Santos*
FF+	Freedom Front Plus
FIRS	Federal Inland Revenue Service
FOC	Foreign Oil Companies
GDP	Gross Domestic Product
Gi	Gigalitre
HDSA	Historically Disadvantaged South African

HGC	Host Government Contract
ICSID	International Center for the Settlement of Investment Disputes
IDASA	Institute for Democracy in South Africa
IDP	Integrated Development Plan
IDZ	Industrial Development Zone
IMF	International Monetary Fund
INC	Ijaw National Congress
IOC	International Oil Company
IPC	Iraq Petroleum Company
IRR	Investment Rate of Return
IYC	Ijaw Youth Council
JDZ	Joint Development Zone
JENRL	Journal of Energy and Natural Resources Law
JOA	Joint Operating Agreement
JV	Joint Venture
KOC	Kuwait Oil Company
MEND	Movement for the Emancipation of the Niger-Delta
M&G	Mail and Guardian
MinPet	Ministry of Petroleum
MOC	Multinational Oil Company
MOSOP	Movement for the Survival of Ogoni People
MPLA	*Movimento Popular de Libertação de Angola* or the Popular Movement for the Liberation of Angola
MPE	Ministry of Petroleum and Energy
MPRAD	Mineral and Petroleum Resources Development Act

NA	National Assembly
NAMIRA	National Midstream Regulatory Agency
NDDC	Niger Delta Development Commission
NEITI	Nigeria Extractive Industries Transparency Initiative
NEMA	National Environmental Management Act
NGO	Non-governmental Organisation
NHT	Nigerian Hydrocarbon Tax
NIEO	New International Economic Order
NLNG	Nigeria Liquefied Natural Gas
NNPC	Nigerian National Petroleum Company
NOC	National Oil Company
NOK	Norwegian Kroner
NPC	National Petroleum Council
NPD	Norwegian Petroleum Directorate
NPI	Nigerian Petroleum Inspectorate
NPRC	Nigerian Petroleum Research Centre
NSDS	National Spatial Development Strategy
NQF	National Qualifications Framework
NWA	National Water Act
OAPEC	Organisation for Arab Petroleum Exporting Countries
OECD	Organisation for Economic Co-Operation and Development
OEL	Oil Exploration License
OfD	Oil for Development Initiative
OML	Oil Mining License

OMPADEC	Oil Mineral Producing Areas Development Commission
OPEC	Organisation of Petroleum Exporting Countries'
OPL	Oil Prospecting License
PASA	Petroleum Agency South Africa
PEDL	Petroleum Exploration and Development License
PetroSA	Petroleum Oil and Gas Corporation of South Africa
PGDS	Provincial Growth and Development Strategy
PIB	Petroleum Industry Bill
PPRA	Petroleum Products Regulatory Authority
PPTA	Petroleum Profit Tax Act
PPT	Petroleum Profit Tax
PSA	Production Sharing Agreement
PSC	Production Sharing Contract
PSNR	Permanent State Sovereignty over Natural Resources
RDP	Reconstruction and Development Programme
RMDEC	Regional Mineral Development and Environmental Committee
SARS	South African Revenue Services
SCA	Supreme Court of Appeal
SERAC	Social and Economic Rights Action Centre
SERAP	Socio-Economic Rights and Accountability Project
SETA	Skills Education Training Authorities
SME	Small and Medium Enterprise
SOAGA	Oil and Gas Alliance of South Africa

SOC	State Oil Company
Sonangol	*Sociedade Nacional de Combustiveis de Angola*
STC	Secondary Tax on Companies
SSF	Strategic Fuel Fund
Tpc	Tera of Thousand Billion Cubic Feet
UK	United Kingdom
UKCS	United Kingdom Continental Shelf
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade and Development
UNGA	United Nations General Assembly
UNGAR	United Nations General Assembly Resolution
UNITA	*União Nacional par a Independencia Total de Angola*
USA	United States of America

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Protection of Petroleum Resources in Africa: A Comparative Analysis of Oil and Gas Laws of Selected African States*

CHAPTER 1

INTRODUCTION

1.1 The Importance of Petroleum as a Source of Energy

In modern times, petroleum[1] is perhaps the most important source of energy globally. As Gao indicates, it is 'critical to national strategies and crucial to international politics'.[2] Furthermore, he indicates that petroleum is a precious substance indispensable to the economic progress and prosperity of all countries, no matter what their level of development might be.[3]

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*A comprehensive comparative analysis of all oil and gas producing states in Africa is beyond the scope of this study. For the convenience of discussion, the study will only focus on three selected African states, one Portuguese speaking and two English speaking states, namely Angola, Nigeria, and South Africa respectively. These states were selected because oil and gas laws in each of them represent a different model. Interesting contrasting oil and gas laws are found in Angola which is essentially Norwegian, and Nigeria which is essentially British,. South Africa is a bit unique most probably because of its minimal oil and gas reserve as compared to most African states.

[1] The word 'petroleum' refers to oil, natural gas and any other form of hydrocarbons. However, for purposes of this study, the word 'petroleum' will be used as a synonym for, and interchangeably with oil and natural gas.

[2] See Gao Z *International Petroleum Contracts: Current Trends and New Directions* (Graham & Trotman 1994) 1.

[3] *Ibid*.

More than any other source, in 2000, oil provided 40 per cent of the world's energy consumption.[4] The industrial countries accounted for 58 per cent of world consumption of petroleum with the United States of America (USA) consuming over 25 per cent, compared to 3.4 per cent for Africa.[5] Despite concerns about global warming and the adoption of the Kyoto Protocol that seeks to reduce production of greenhouse gasses,[6] oil production and consumption is projected to increase significantly.[7] The USA National Petroleum Council (NPC) recently published a report in which a 50–60 per cent growth in total global energy demand by 2030 is predicted.[8] According to this report, 'oil and natural gas [amongst others] will remain indispensable to meeting total projected energy demand growth'.[9] This report indicates that oil and natural gas currently provide nearly 60 per cent of the global primary energy resources.[10]

1.2 Africa's Petroleum Resources Endowment

[4] See Knight R 'Expanding Petroleum Production in Africa' available at http://richardknight.homestead.com/files/oilacas.htm (accessed 04 April 2009).

[5] *Ibid*.

[6] See generally the OECD (Organisation for Economic Co-Operation and Development) 'Strategies to Reduce Greenhouse Gas Emissions from Road Transport: Analytical Methods' available at http://www.internationaltransportforum.org/pub/pdf/02GreenhouseE.pdf (accessed 14 April 2009).

[7] *Ibid*. For instance, the US National Intelligence Council estimates that African oil imports to the U.S will rise to 25 per cent of total imports by 2015.

[8] See the NPC 'Facing the Hard Truths about Energy: A Comprehensive View to 2030 of Global Oil and Natural Gas' available at http://downloadcenter.connectlive.com/events/npc071807/pdf-downloads/NPC-Hard_Truths-Executive_Summary.pdf (accessed 15 April 2009). See also Holditch SA & Russell RC 'Factors That Will Influence Oil and Gas Supply and Demand in the 21st Century' available at http://www.physics.ohio-state.edu/~wilkins/energy/Resources/survey/harnessing-mtl-energy-2008Apr/supply-oilgas-21st.pdf (accessed 03 March 2009).

[9] See the NPC n 8 *supra*.

[10] See the NPC n 8 *supra* at 7-8.

The African continent is generally richly endowed with petroleum resources including oil and natural gas.[11] Africa was reported to have had proven oil reserves of 117.481 billion barrels at the end of 2007 which is approximately 9 per cent of the world's reserves.[12] In 2007 on average overall African oil production level was estimated at 10.07 mn b/d and this was said to be expected to rise to at least 12.77mn b/d by 2012 when production levels in Angolan were likely to have risen substantially.[13] However, only five countries dominate Africa's upstream oil production and together they account for approximately 85 per cent of the continent's oil production.[14]

Africa's oil consumption is, however, very minimal. In 2007, on average, Africa consumed only 2955.2 thousand barrels of oil per day, which account for a mere 3.49 per cent of the world oil consumption.[15]

Globally, Africa has therefore become an important source of oil.[16] It exports at least 2 per cent of world oil. The three major oil producing countries in Africa,[17] export

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[11] See Heringshaw V 'Natural Resources – curse or blessing?' (2004) *New Economy* 174.

[12] See the 2008 *BP Statistical Energy Survey* available at http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2008/STAGING/local_assets/downloads/pdf/statistical_review_of_world_energy_full_review_2008.pdf (accessed 03 March 2009).

[13] See the 2008 *Business Monitor International* September Issue No. 29 at 4. See also the 2008 *BP Statistical Energy Survey* n 12 *supra.*

[14] These are Nigeria, Angola, Libya, Algeria, Egypt and Angola. Other oil producing countries are Gabon, Congo, Cameroon, Tunisia, Equatorial Guinea, the Democratic Republic of the Congo, and Cote d'Ivoire; while exploration is reported in the 2008 *BP Statistical Energy Survey* (n 12 *supra*) to be taking place in Chad, Sudan, Namibia, South Africa and Madagascar.

[15] See the 2008 *BP Statistical Energy Survey* n 12 *supra.*

[16] See Heringshaw n 11 *supra* at 175.

[17] Among these are Nigeria, which is the largest oil producer in Africa and the eleventh largest oil producer in the word, Algeria and Libya.

approximately 30 per cent of Africa's oil. For instance, Nigeria is a major supplier of oil to the US[18] and Western Europe.[19]

Regrettably most African oil and gas exporting countries mainly depend on the revenues generated from these resources.[20] As a result, these countries are unfortunately greatly impacted by the price of oil negatively.

Africa is also an important source of natural gas.[21] This continent was reported to have had 14.58 trillion cubic metres of proved natural gas reserves inn 2007, which is said to be approximately 8 per cent of the world's total reserves.[22] In terms of production, Africa was reported to have 190.37 billion cubic metres of natural gas in 2007, which is

[18] This is estimated at about 15.3 per cent that is, over 2.5 million barrels per day.

[19] See Ndumbe JA 'West Oil, U.S Energy Policy, and Africa's Development Strategies' (Winter 2004) *Mediterranean Quarterly* 23; Ayodele-Akaakar FO 'Appraisal for the Oil and Gas Laws: A Search for Enduring Legislation for the Niger Delta Region' 2, available at http://www.jsd-africa.com/Jsda/Fallwinter2001/articlespdf/ARC%20-%20APPRAISING%20THE%20OIL%20and%20Gas.pdf (accessed 04 April 2009); and Obi CI 'The Oil Paradox: Reflections on the Violent Dynamics of Petro-Politics and (Mis) Governance in Nigeria's Niger Delta' *Occasional Paper No 74 Africa Institute of South Africa* (2004) 1. According to the *Oil and Gas Journal* (*OGJ*), Nigeria had 36.2 billion barrels of proven oil reserves and 182 trillion cubic feet (Tcf) of proven natural gas as of January 2007.

[20] For instance, it has been reported that in Algeria oil and natural gas products account for 97 per cent of exports, 30 per cent of GDP and 60 per cent of government revenues, while in Nigeria it is 95 per cent of exports, 20 per cent of GDP and 65 per cent of government revenues.

[21] For instance, in its executive report for the Ministry of Finance (Angola), titled 'Evaluation of Angolan Petroleum Sector', KPMG has reported that until 1999 the discovered reserves of natural gas in Angola totalled approximately 1.6 Tpc (tera or thousand billion cubic feet) and that this number could grow to 9.5 Tpc, or even more, when the new and more recent discoveries were added.

[22] See the 2008 *BP Statistical Energy Survey* n 12 *supra*.

approximately 6 per cent of the world's total.[23] Africa's share of global gas consumption is also very minimal at only 2 per cent.[24] With the recent very large discoveries in Mozambique,[25] these amounts are most probably very high at this moment.

1.3 The Research Problem

As Shaxson puts it-

> Resources like oil and gas should be a blessing for countries that produce it. Norway and Britain seem to have done well out of their oilfields, but in Africa the record is different. Producing oil seems to be a bit like taking cocaine: if you are already healthy it might invigorate you, but if you are weak and sick, as many African countries are, it can do you serious harm. … Oil can also be a bit like heroine: the injection of cash from each cargo delivers a feeling of well-being, but the effect over time is addictive. Just as heroin addicts lose interest in work, health, family and friends and focus increasingly on the next fix, so politicians in oil-dependent countries lose interest in their fellow citizens, as they try to get access to free cash. Some countries, like Indonesia, have managed to even broken the addiction, but again the record in Africa is dismal.[26]

As is the case with the rest of the developing world, Africa's oil and gas exploration, development and exploitation has always been controlled by international oil companies[27] rather than the African states themselves mainly because the latter lacked the necessary capital and expertise for the extraction of the resources.[28]

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[23] *Ibid*.

[24] *Ibid*.

[25] See generally the SPTEC Advisory- 2012 Country Review 'The Emergence of a Giant in Natural Gas' http://sptec-advisory.com/SPTEC_Advisory-Mozambique-The_Emergence_of_a_giant_in_Natural_Gas.pdf (accessed 03 September 2013).

[26] See Shaxson N *Poisoned Wells: the Dirty Politics of African Oil* (2007 Palgrave Macmillan) 1 at 5. The situation is so bad that indeed Shaxon compares oil to heroin.

[27] Hereinafter 'IOCs'.

[28] See Gao n 2 *supra*.

Because of this foreign control, Africa has, despite its natural resources endowment, remained the poorest continent in the world.[29] Africa has not been associated with development and relative prosperity, but with years of conflict, economic decline, and human misery on a massive scale.[30] As Shaxon puts it-

> each week the oil and gas fields of sub-Saharan Africa produce well over a billion dollars' worth of oil, an amount that far exceeds development aid to the entire African continent. Yet the rising tide of oil money is not promoting stability and development, but is instead causing violence, poverty and corruption that reaches deep into American and European economies.[31]

This presents a 'shocking, terrible paradox'[32] or what Sachs and Warner refer to as a 'conceptual puzzle'.[33]

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[29] See n Obi n 19 *supra*.

[30] See Obi n 19 *supra*. For some disturbing stories on human miseries related to oil in Nigeria, see generally Na'Allah A (ed) *Ogony's Agonies: Ken Saro-Wawi and the Crises in Nigeria* (Africa World Press Inc. 1998), and Shaxson n 26 *supra*.

[31] See Shaxson n 26 *supra*.

[32] See Hodges T *Angola: Anatomy of an Oil State* 2nd ed (African Issues 2004) 1; Cyril I Obi 19 *supra* at 1; F Ayodele-akaakar n 19 *supra* at 5, quoting Kwame Nkuruma form N Nkuruma *Neo-colonialism: The Last Stage of Imperialism* (Thomas London & Sons 1965); Kalu VE & Steward NF 'Nigeria's Niger Delta Crises and Resolution of Oil and Gas Related Disputes: Need for a Paradigm Shift' 25 (August 2007) *Journal of Energy and Natural Resources Law (JENRL)* 244; *Legal Times* August 08 2005 'Special Report; São Tomé and Principe has no Oil yet, but it has a Law to Preserve Assets'; Shaxon n 19 *supra* at 6; Sachs J & Warner A 'Natural Resource Abundance and Economic Growth' Harvard University *NBER Working Paper* No. W5398 (1995b) November 1997; and Ding N & Field B 'Natural Resource Abundance and Economic Growth' (July 2004) University of Massachusetts Amherst *Resource Economics Working Paper* No. 2004-7, available at SSRN: http://ssrn.com/abstract=564567 (accessed 14 March 2009); Stijns JC 'Natural Resource Abundance and Economic Growth Revisited' 30 (2005) *Resources Policy* 30 (2005) 107–130, available at http://www.sciencedirect.com (accessed 14 March 2009); and Brunnschweiler C 'Cursing the Blessings? Natural Resource Abundance, Institutions, and

As already demonstrated, oil and gas resources are essential to the economic growth, fiscal and energy stability globally.[34] However, for many African states, it is due to the resource curse[35] syndrome,[36] oil price volatility, oil-related social conflict and poor oil revenue management that Africa remains the poorest and most economically marginalised continent, despite its natural resources endowment.

The resource curse or the oil paradox in Africa undermines the essence of the principle of permanent state sovereignty over natural resources (PSNR) in Africa.[37] PSNR is also

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Economic Growth' available at http://economics.ca/2006/papers/0490.pdf (accessed 14 March 2009).

[33] See Sachs & Warner n 32 *supra* at 3.

[34] See Gao n 2 *supra*.

[35] According to Ascher W 'The "Resource Curse"' in Bastida E *et al* (eds) *International and Comparative Mineral Law and Policy: Trends and Prospects* (Kluiwer Law International 2005) 469, the 'resource curse' refers to the economic and political problems said to arise from reliance on natural resources exploitation. See also Shaxson n 26 *supra* at 6.

[36] See n 2 *supra*; Obi n 19 *supra* at 5*;* 'São-Tomé: Oil Revenue Management Law', available at http://africanoilpolitics.blogspot.com/2004-02-01-africanoilpolitics-archive.html.

[37] See for instance, the preamble and article 3 of Angola's Petroleum Activities Law (Law No. 10/04 of 12 November 2004; s 2 of the South Africa's Mineral and Petroleum Resources Development Act (No. 28 of 2002 hereinafter 'the MPRDA'); s 44(3) of the Constitution of the Federal Republic of Nigeria, 1999, s 1(1) of Nigeria's Minerals and Mining Act No 34 of 1999, s 1 of Nigeria's Petroleum Act 1969; and s 2 of the Nigerian Exclusive Economic Zones Act of 1978. PSNR has also received international recognition recently. There is a paradigm shift from the 19th century practice of investor ownership and control over natural resources, towards state control and PSNR. This is evident from a number of United Nations resolutions such as United Nations General Assembly Resolution (UNGAR) No. 26 (VII) of 21 December 1952, UNGAR No. 1314 (XIII) of 12 December 1958, UNGAR No. 1803 (XVII) of 14 December 1962, UNGAR No. 2158 (XXI) of 1966, UNGAR No. 3201 (S- VI) of 1 May 1974, and UNGAR No. 3281 (XXIX) of 12 December 1974.

recognised by the United Nations[38] and, as Bunter indicates, it is also part of international law.[39] For instance, principle I of the United Nations General Assembly Resolution (UNGAR) 1803 of 1962 titled 'Permanent Sovereignty over Natural Resources' provides as follows:

> The rights of peoples and nations to permanent sovereignty over their wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the state concerned.

Although there is no universally accepted definition of ssovereignty, it has generally been described by international lawyers by reference to an early dispute between the US and the Netherlands over the Island of Palmas, where the arbitrator Max Huber observed that 'sovereignty in relations between states signifies independence. Independence in regard to a portion of the globe is the right to exercise therein, to the exclusion of any other state, the functions of a state' '.[40] The essence of the principle of permanent state sovereignty over natural resources, including petroleum, is therefore that the state exercises supreme authority, power or control over natural resources under its jurisdiction. According to Bunter, 'the meaning of sovereignty is that the sovereign or the people of the nation, exercising their sovereign (supreme) power through their mandated legislation, cannot be challenged by any court; there is no higher power'.[41]

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[38] *Ibid*.

[39] See Bunter MAG *The Promotion and Licensing of Petroleum Prospective Acreage* (Kluwer Law International 2002) 16.

[40] See '*Island of the Palmas* case (Netherlands/USA), Arbitral Award of 4 April 2' *Reports of International Arbitral Awards II*: 838. See also Viñuales JE 'The Resource Curse: A Legal Perspective' 17 (2011) *Global Governance* 197 at 199. See also Bunter n 39 *supra* at 11.

[41] See Bunter n 39 *supra*.

A state cannot exercise PSNR if its natural resources are under the control of IOCs.[42] Furthermore, a state cannot claim PSNR and yet its revenues derived from the exploitation of those resources do not meaningfully contribute towards the socio-economic development of such a state, and its local communities or communities in the oil producing areas such as the Niger-Delta in Nigeria and the Cabinda region in Angola; or the development of its national capabilities in the field of petroleum exploration.[43]

The material aims of the principle of PSNR are undermined by the fact that exploration for and production of petroleum products on public lands in most countries has traditionally been carried out by IOCs under licence from government.[44] Some form of charge based on the value of production, whether or not denominated as royalty, has been an element of consideration derived by government.[45] Therefore, historically states never actually and meaningfully participated in the development for and exploration for oil and gas in their territories. However, in modern times there are various forms of government participation agreements in the exploration for and production of petroleum resources, namely concessions, or conventional licenses, joint ventures (JVs), pure and risk service contracts, and Production Sharing Agreement (PSAs)/Production Sharing Contracts (PSCs). In their thirst for oil and quest for exploration and production of oil and gas, different states have developed different licensing systems or models and a blend of state participation agreements.

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[42] See Omorogbe Y 'Contractual Forms in the Oil Industry: The Nigerian Experience with Production Sharing Contracts' 20 (1986) *Journal of World Trade Law* 342; and Atsegbua L 'Acquisition of Oil Rights under Contractual Joint Ventures in Nigeria' 37 (1993) *Journal of African Law* 10 at 19 to 20.

[43] See Atsegbua n 42 *supra*.

[44] Initially states granted concession to the IOCs over a large area, almost the entire area of a state without any state participation whatsoever in the exploration for or production of oil and gas.

[45] See Dam KW *Oil Resources- Who gets What How?* (University of Chicago Press 1976) 23.

Different models for oil and gas exploration and production, namely the British model applicable in Nigeria, the Norwegian model applicable in Angola,[46] and the unique model adopted by South Africa, will be identified, discussed, critically analysed and compared in this study. A distillation of the key features of the legal frameworks for upstream oil and gas exploration, development and production will be undertaken.

In terms of the British model or discretionary system, a license or acreage is awarded to IOCs on the basis of a number of criteria such as the technical, fiscal and management capacity of the company concerned, as well as the level of work offered.[47] In other words, there is no single determinative criterion for awarding licenses. Matters for determination by the licencing authority also include the depth and stratigraphic horizon of exploratory wells.[48] After submittal of a bid (embracing a statement of company capability as well as the amount of work offered), the bid itself would probably be evaluated by a tender committee formed from within the licencing authority.[49] Therefore in this system, the relevant Minister grant licences 'to such persons as he thinks fit' and 'for such consideration as he…may determine'.[50]

Effectively the discretionary system allows an IOC to make a cash bid which, instead of going straight to government as a lease bonus, is spent by the IOC itself on work within its contract area.[51] The greater the work proposed, the more likely it is that the acreage will be awarded.

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[46] The American or World Bank model applicable in São Tomé is beyond the scope of this study. Although São Tomé had until 2005 had no oil revenues, the island is according to *Legalbrief Africa*, 03 February 2005, thought to have significant on and offshore petroleum reserves including reserves located in the Joint Development Zone established with Nigeria.

[47] See Bunter n 39 *supra* at 87.

[48] *Ibid*.

[49] *Ibid*.

[50] See s 2 of the (British) Petroleum (Production) Act 1934 as quoted by Daintith T & Willoughby G *Manual of United Kingdom Oil and Gas Law* (Sweet & Maxwell 1984) 23.

[51] *Ibid*.

Nigeria has adopted this model through a 'flexible system' in terms of which legislation lays down general guidelines and conditions which must be satisfied by applicants seeking to acquire exploration rights, but also provides for certain important terms and conditions to be settled by negotiation.[52] This system therefore combines elements of both the general legislation system and the 'agreement system'.[53]

Under the Norwegian model or the 'carried-interest' license system, the government's potential interest is 'carried' during the exploration phase by the licensee.[54] When petroleum is ultimately discovered, the government has an option to participate.[55] If it exercises that option, it must then contribute at least part of the costs.[56] The financial effect of the 'carried-interest' arrangement depends, aside from the percentage of participation, largely on specific provisions for the government's payment of its percentage costs.[57] In particular, important factors on the cost side are whether the government pays its aliquot portion of both exploration and development costs, or only for the latter; the time of government payment relative to the time of expenditure by the licensee; and the interest rate which the government on any amount for which payment lags expenditure.[58]

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[52] See Atsegbua n 42 *supra* at 12.

[53] In terms of the general legislative system, the legislation fixes, in advance, conditions under which rights to explore for and/or exploit oil resources may be granted under standard form license or lease. This is also known as the 'fixed content system'; see Atsegbua n 42 *supra* at 11. Under the 'agreement system', on the other hand, there is no general system of legislation, or the legislation is of a very general nature, and the government is left through its state-owned company, to grant right to explore for and /or to exploit oil resources on the basis of individually negotiated agreements; see Atsegbua n 42 *supra*.

[54] See Dam n 45 *supra* at 57.

[55] *Ibid*.

[56] *Ibid*.

[57] *Ibid*.

[58] *Ibid*.

In terms of the American/ World Bank model or auction system, licenses are 'sold' to the highest bidder.[59] This system attempts to capture for the state the highest economic rent by pitting one bidder against another.[60] In a competitive situation, each bidder would gain by giving up some of the prospective economic rent to the licensing authority in return for the license.[61] In contrast to the discretionary system, under the auction system the cash bid is the only criterion for the award of the acreage.[62]

South African presents an interesting unique model. Prior to the MPRDA's entry into force on May 1, 2004, oil and gas exploration in South Africa was governed by contracts between the South African government and private companies known as 'OP26 subleases' and oil and gas production by 'OP26 mining leases'.

Currently both oil and gas exploration and production (i.e. the upstream industry) and mining and prospecting for minerals in South Africa are governed by the MPRDA. Like the mining industry, the upstream oil and gas industry has gone through a complex process of transition from the previous regime (governed under the repealed Minerals Act, 1991, which preserved certain provisions of the otherwise repealed Mining Rights Act, 1967) to exploration, production, and other rights in respect of petroleum, for which the MPRDA provides. The MPRDA's transitional provisions in Schedule II give holders of OP26 subleases an opportunity to convert to exploration rights and holders of OP26 mining leases to convert to production rights.

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[59] As indicated earlier (n 46 *supra*), this is beyond the scope of this study and it is merely mentioned briefly here.

[60] See Dam n 45 *supra* at 5.

[61] *Ibid*.

[62] See Hollis SS & Berresford JW 'Structuring Legal Relationships in Oil and Gas Exploration and Development in 'Frontier' Countries'; and Hawley PW, Bramley AD & Castellani JM 'Competitive Bidding Tactics for New Exploration Concessions' both in Wälde T & Ngidi GK (eds) *International Oil and Gas Investment: Moving Eastward?* (University of Dundee 1994) 29 at 35 and 61 respectively.

The previous regime is referred to as the 'OP26' regime, so called for the number under which the foundational 1967 lease to prospect for petroleum (then defined as natural oil) in the Republic was registered in the Mining Titles Office. A significant feature of the OP26 regime was that, as is the case in many other countries, it guaranteed fiscal stability to oil and gas exploration companies, recognising the need for certainty in such a long-term, capital intensive and risky activity.

In terms of the current South African model under the MPRDA, the state is obliged to grant licenses if certain predetermined legislative criteria are met. In other words, once an applicant meets all the requirements of the legislative framework in terms of both the form and the substance of the application, the licensing authority does not have any discretion but is obliged to grant the licenses. Although the prescribed legislative criteria or requirements might indeed be difficult to meet and thus present barriers to obtaining licenses, this is arguably the most liberal model. Some have actually suggested that this model is not investor friendly.[63] However, the author does not subscribe to such sentiments. In fact the author believes that this is the most transparent licencing system or model in the sense that if criteria are predetermined in a legislative instrument and licensing is not absolutely left to the discretion of the licencing authority, the applicants are well informed in advance about what to expect and thus prepare accordingly.

In light of the different models and Africa's oil paradox,[64] it is important to determine how effective are the respective laws of the selected African states, presenting different licensing models, in protecting African oil and gas resources from foreign exploitation.[65]

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[63] See Leon P 'Creeping Expropriation of Mining Investments: an African Perspective' 27(4) (2009) *JENRL* 597.

[64] See Shaxon n 26 *supra*.

[65] As Bunter, n 39 *supra* at 17, puts it, the world's great non-state oil companies such as BP, Shell, Exxon, Texaco, Chevron and others were able to expand largely as a result of the military and economic power of Europe and North America and the concomitant colonisation of the Arabian Gulf, North Africa, Latin America and Southeast Asia. He further indicates that this

As indicated earlier, only principal laws regulating the oil and gas upstream[66] activities will be described, compared and critically analysed. This will be done by analysing and comparing the above-mentioned different licensing models or systems in terms of:

- endowment with oil and gas resources;
- comparative legal frameworks;
- the legal nature of the regulatory systems;
- ownership of the oil and gas resources *in situ*;
- methods of acquiring rights to oil and gas resources;
- legal nature of right to oil and gas resources;
- legal nature of licenses;
- transferability, variation and revocation of rights;
- organisational or institutional structures;
- petroleum taxation or revenue/ comparative fiscal systems;
- environmental challenges and other challenges;
- local communities benefits from the proceeds of oil and gas resources;
- local content;
- legal reforms;
- state/government participation arrangements;[67] as well as
- dispute resolution.[68]

'economic colonialism' has shaped the economic styles of the various petroleum-rich countries in these areas.

[66] It is important to note that this comparative analysis will only be limited to the regulation of the upstream activities of the petroleum sector, that is, exploration, exploitation, development and production. Downstream and midstream activities such as pipelines, transportation, refinery and so on are beyond the scope of this study.

[67] Through Traditional Concessions, Modern Concessions, PSAs/ PSCs, Risk Service Contracts, Pure Service Contracts and JVs.

[68] See Bond SR 'Negotiating Dispute Settlement in the International Petroleum Industry: the International Chamber of Commerce' in Wälde & Ngidi n 61 *supra* at 165.

1.4 Research Questions

How effective are the respective petroleum laws of selected African states in the protection of oil and natural gas resources in Africa against foreign exploitation? To what extent are the current models of oil and gas regulation in the selected African states effective in the context of developing states? How appropriate are the institutional framework for oil and gas regulation in the context of developing states? How can the selected states promote the right to PSNR through their respective regulatory regimes?

1.5 The Aim of the Study

The aim of this study is to undertake a comparative analysis of the principal laws regulating the upstream oil and gas activities in the three selected African states. Laws regulating the exploration for, the development of, and the production of oil and gas resources will therefore be critically analysed and contrasted to determine their effectiveness in protecting these resources from exploitation. The evaluation of the effectiveness of the legal regimes is based upon comparing their *effects* (i.e. their outcomes and/or impacts) on the overall objective of protecting these resources from foreign exploitation and ensuring that their exploitation benefits the peoples who can claim sovereign rights to the resources. Comparative law is used to demonstrate and evaluate the effects which certain legal rules or regimes and institutions produce which can add a dimension of understanding and inspire law and policy reforms. The criteria used to evaluate the effectiveness of the regulatory regimes under consideration are:

- the extent to which they recognise and enforce state ownership of the oil and gas resources *in situ*;
- the extent to which they recognise and enforce the doctrine of PSNR and whether this is appropriate in the African context;
- the effectiveness of the oil and gas laws and extend to which and how they are enforced against the oil and gas companies;
- the extent to which and how they are enforced to protect the environment;

- the extent to which they recognise the need to develop institutional capacities for the management of these natural resources; and
- the extent to which and how they are enforced to protect the rights of local communities to be involved in decision-making on issues affecting their health, social and economic wellbeing.

As indicated above, three African states, one Portuguese speaking[69] and two English speaking,[70] namely, Angola, Nigeria, and South Africa respectively, have been selected for this study. The legal systems of the three selected countries differ substantial, with Angola belonging to the family of so-called civil law countries, whereas Nigeria's legal system is firmly grounded in British common law, and South Africa's Roman-Dutch law tradition is the basis of a unique mixed law system. Interesting and contrasting oil and gas laws are found in the three selected countries. Angola followed a Norwegian oil and gas law model. Nigeria essentially retained the British common law regulatory model. South Africa in contrast crafted its own and unprecedented legal framework for the oil and gas industries, seeking to compromise between it did not have to consider any vested interests, having currently only minimal oil and gas reserves and production. South Africa found it relatively easy to break new ground, as it did not have to consider any vested interests, having currently only minimal oil and gas reserves and production.[71] South Africa has strategic importance as an exploration destination for oil

[69] Portuguese speaking African states include Angola, Cape Verde, Guinea Bissau, Mozambique and São Tomé.

[70] English Speaking African states include South Africa, Nigeria, Zimbabwe, Zambia, Namibia, Botswana, Lesotho, and Swaziland, amongst others.

[71] Another important regulatory regime, which is beyond the scope of this study, is the American or World Bank model that is followed in São Tomé. As indicated earlier (see n 59), under this model licenses are 'sold' to the highest bidder. This system attempts to capture for the state the highest economic rent by pitting one bidder against another. In a competitive situation, each bidder would gain by giving up some of the prospective economic rent to the licensing authority in return for the license. In contrast to the discretionary system, under the auction system the cash bid is the only criterion for the award of the acreage.

and natural gas[72] and also has high potential as an important shale gas producer in the world.[73] The choice of Angola, Nigeria and South Africa will thus allow for the comparison of alternative frameworks that have emerged from a civil law system, in a common law country, and in a mixed, Roman-Dutch law country.

Although there are various pieces of legislation that impact on oil and gas activities in the selected states, including laws on environment, health and safety, land, water, tax, export foreign exchange, and labour, a discussion of all these laws is beyond the scope of this study. The main focus of this study will be a comparative analysis of the principal oil and gas laws regulating the development of, exploration for and production of oil and gas resources.

These models are described, explored, analysed, contrasted and understood in their proper context. The key features of each model are discussed and a comparison is made between the different models in terms of ownership of rights to oil and gas resources, methods of acquiring rights to oil and gas resources, legal nature of the right to explore for, or to produce oil and gas resources, transferability and revocation of rights as well as legal reforms.

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[72] As Brown indicates, 'South Africa's oil and gas reserves are currently small, but could increase dramatically in the coming years. Offshore exploration in South Africa is intensifying, spurred by: 1) massive gas discoveries to the east in Mozambique in 2010, 2) modest discoveries in the Bredasdorp Basin to the south, and 3) encouraging results in the Orange Basin in the east, south of Namibia. Onshore, large IOCs are betting that the geological strata running southward from Uganda and the Great Lakes extend to South African territory'. See Brown DE 'Africa's Booming Oil and Natural Gas Exploration and Production: National Security Implications for the United States and China' available at http://www.StrategicStudiesInstitute.army.mil/ (accessed 24 March 2014) p 23.

[73] According to an assessment by the U.S. Energy Information Administration, South Africa holds the eighth largest shale gas resources in the world - See more at: http://www.ideaslaboratory.com/2014/02/24/rise-of-africas-petro-states/#sthash.76nzgfKq.dpuf - See more at: http://www.ideaslaboratory.com/2014/02/24/rise-of-africas-petro-states/#sthash.76nzgfKq.dpuf (accessed 24 March 2014).

1.6 Underlying Assumptions

Natural resources in general and oil and gas in particular, can make a significant contribution towards the achievement of the Millennium Development Goals in Africa.[74] The author believes that, generally, the primary laws regulating the oil and gas development, exploration and production activities in Africa are not effective in protecting the continent's depleting petroleum resources thus exacerbating the already unacceptable levels of underdevelopment, poverty,[75] and civil war[76] in Africa. A review of Africa's primary oil and gas laws regulating the development, exploration, and production of these resources could therefore go a long way in influencing policy development and legal reform towards a better management of these natural resources in a sustainable way, to benefit communities, and towards poverty alleviation and socio-economic development.

1.7 Significance

The significance of this study is that the results could help in the improvement of the existing models or the development of a new model for the regulation of oil and gas exploration and production, which does not only promote socio-economic development in Africa, but also ensure that these resources are adequately protected from exploitation and abuse by foreign companies and individuals. This study is therefore of particular practical importance for the proper regulation of the oil and gas industries' upstream activities in Africa and can assist the governments of the selected jurisdictions in their policy development on issues of upstream petroleum regulation.

1.8 Research Methodology

[74] See n 11 *supra* at 175.

[75] See n 19 *supra*.

[76] See n 26 *supra*.

Research methodology is a way to systematically solve a research problem. In effect, it is a science of studying how research is done scientifically. This study will generally adopt the following logical steps in studying the research problem:

1.8.1 Design

The nature of the research problem and the research questions stated above necessitate a qualitative research that is descriptive, exploratory, and contextual in nature. The current primary oil and gas laws regulating the development of, exploration for and production of oil and gas resources of the selected African states will be explored, described, analysed, compared and understood in their proper context.

1.8.2 Research Methods

The main method to be utilised in this study is a comparative legal research[77] method which stimulates thought on legal research, and can lead to new insights and new, significant knowledge. As Africa's oil and gas resources are exploited, it is necessary to employ a comparative study to determine how best to protect these resources from exploitation, abuse and depletion through legislative and other measures.

To this end, a literature study will be conducted. The nature of the research problem stated above necessitates the usage of documents including policy documents, discussion papers, legislation, judicial decisions, books and journal articles.

[77] See generally Gordley J 'Comparative Legal Research: Its Function in the Development of Harmonized Law' 43 (1995) *The American Journal of Comparative Law* 555; and Hantrais L 'Contextualization in Cross-national Comparative Research' 2(2) (1999) *International Journal of Social Research Methodology* 93.

A historical approach is also be adopted to determine the exploitation and monopolisation of oil and gas resources by IOCs[78] assisted by colonisers during the period of Africa's colonisation, through times of independence and until the current state of Africa as a developing continent. This provides a proper historical context to the development of oil and gas laws in Africa. However, this historical research component will as far as possible be limited to a historical overview, and not an in-depth legal-historical approach. The envisaged historical overview has as its main object, the understanding of the historical development of oil and gas laws in Africa and the clarification of modern concepts relating to oil and gas laws in Africa.

In view of the fact that this study concentrates on the observation and systematic processing of knowledge, the legal positivist research method[79] is used. Relevant legislation, policies, commission reports and government initiatives of the different African states will be analysed, categorised, compared, contrasted and criticised throughout. Although errors, inconsistencies and shortcomings are pointed out, strong points that could form the basis for reformed and well-functioning systems of oil and gas regulation are also be emphasised.

1.9 Structural Framework

Chapter 1 (Introduction) is a general introduction chapter. It introduces the research problem, demonstrate the research methods to be utilised for the thesis, and briefly indicate the outline of the thesis.

Chapter 2 (An Overview of Different Regulatory Models on Upstream Oil and Gas Resources) basically provides an overview of different regimes or licencing models

[78] Including what has, in popular literature, become known as the 'Seven Sisters', namely British Petroleum, Exxon (or Esso), Gulf, Mobil, Shell, Socal (or Chevron) and Texaco, see Linda T & Mackay GA *Norwegian Oil Policies* (C. Hurts & Company 1980) 7.

[79] See Hervey *et al* 'Legal Research Methodologies in European Union & International Law: Research Notes (Part 1)' 3(2) (2007*) Journal of Contemporary European Research* 161.

relating to the upstream regulation of oil and gas resources.. In this chapter the different regimes of oil and gas ownership, different models for oil and gas regulation, and different types of host government contracts are reviewed. This is therefore an important chapter that lays a solid foundation for discussions in the subsequent chapters.

Chapter 3 ('Oil and Gas Law in Angola: the Norwegian 'Carried-interest' Model') is a critical analysis of current primary oil and gas laws in Angola regulating the upstream development, exploration and production of oil and gas resources. These laws are discussed in terms of ownership, acquisition, legal nature, state or government participation, as well as transferability and revocation of rights. The model which is essentially Norwegian, which prevails in this state is investigated and critically analysed. The key features of this model are discussed. Its weaknesses, challenges and strengths are highlighted. This model is critically evaluated to determine its effectiveness in protecting these petroleum resources from control by IOCs and the concomitant depletion, exploitation, abuse, and monopolisation of these resources.

Chapter 4 ('Oil and Gas Law in Nigeria: the British Discretionary Allocation Model') is a comprehensive analysis of the current regime of oil and gas laws in Nigeria will be undertaken. This model, which is essentially British, is critically analysed in comparison with the Norwegian model applicable in Angola. The current socio-political problems and challenges associated with this model are highlighted.

Chapter 5 ('The South African Oil and Gas Law: A Unique Model') discusses a completely different and unique model of oil and gas law which currently prevails in South Africa in comparison with the other models. Although oil and gas production and export in South Africa is very minimal compared to the other Africa States such as Algeria, Libya, Angola and Sudan, this state imports oil and gas and these resources are of strategic importance and very critical for the country's current energy crises.

In chapter 6 ('Comparative Analysis of the Angolan, The Nigerian, and the South African Models') a comparative analyses is undertaken. A comparison of the different licensing

models or systems is conducted in terms of: endowment with oil and gas resources; comparative legal frameworks; the legal nature of the regulatory systems; ownership of the oil and gas resources *in situ*; methods of acquiring rights to oil and gas resources; legal nature of right to oil and gas resources; legal nature of licenses; transferability, variation and revocation of rights; organisational or institutional structures; petroleum taxation or revenue/ comparative fiscal systems; environmental challenges and other challenges; local communities benefits from the proceeds of oil and gas resources; local content; legal reforms; state/government participation arrangements; as well as dispute resolution. The British and Norwegian legal systems are also utilised to complete the comparison. A comparison is made between these two models and lessons are drawn from that comparison in order to assist the selected African states to improve their domestic regulatory systems.

In chapter 7 (Conclusions and Recommendations) the author makes some concluding remarks and recommendations as to how the regulatory framework for the protection of oil and gas resources can be improved to adequately protect these resources from exploitation by IOCs and ensure that they are exploited in a responsible manner to benefit the peoples of Africa.

CHAPTER 2

AN OVERVIEW OF DIFFERENT REGULATORY MODELS ON UPSTREAM OIL AND GAS RESOURCES

2.1 Introduction

It is not easy to define oil and gas law or petroleum law. In fact most authors do not even attempt to provide a definition.[80] At best, some define the resources themselves[81] while others defined 'petroleum legislation'.[82]

This is perhaps because oil and gas law is not dedicated to a specific field of law. Oil and gas law is a combination of different areas of law used for convenience to regulate upstream and downstream activities in the oil and gas industry. An analysis of the nature

[80] See for instance Dam n 45 *supra*; Dainttith & Willoughby n 49 *supra*; Badenhorst PJ & Mostert H *Mineral and Petroleum Law of South Africa: Commentary and Statutes* (Juta, first published 2004); Taverne B *An Introduction to the Regulation of the Petroleum Industry: Laws, Contracts and Conventions* (Kluwer Law International 1994); Bryan G *Law of Petroleum and Natural Gas* (Fred B. Rothman & Co. 1983); Barrows GH *Worldwide Concession Contracts and Petroleum Legislation* (Penn Well Books 1983); Lowe JS *Oil and Gas Law in a Nutshell* (1995 West Publishing); Bunter n 39 *supra*; Smith EE *et al International Petroleum Transactions* (Rocky Mountain Mineral Foundation1993); Lind & Mackay n 78 *supra*; Daintith T (ed) *The Legal Character of Petroleum Licences: A Comparative Study* (University of Dundee 1981); Wälde & Ngidi n 62 *supra*; Gao Z n 2 *supra*; Dam KW 'Oil and Gas Licensing and the North Sea' 8 (Oct 1965) *Journal of Law and Economics* 51-75; Atsegbua n 41 *supra*; Ibeanu O 'Oil, Conflict and Rural Nigeria: Issues in the Ogony Crisis' *Occasional Paper Series* 1(2) 1997; and Ayodele-Akaakar n 19 *supra*.

[81] For instance, Bryan n 82 *supra* at 9 provide definitions for amongst others 'petroleum' and 'natural gas'; while Gao n 2 *supra* at 1 uses 'petroleum as a synonymous with 'oil' and 'gas'.

[82] See for instance, Al-Qasem A *Principles of Petroleum Legislation: the Case of a Developing Country* (Graham & Trotman 1985).

of oil and gas law shows that oil and gas law is indeed a combination of different areas of law. These include areas such as property law, law of contract, constitutional and administrative law, environmental law,[83] African customary law, Islamic law, and international law.[84]

Oil and gas law, therefore refers to a blend of legal principles developed by modifying principles of existing property law, contract law, constitutional and administrative law, environmental law, and general principles of international law, and applying these principles to the oil and gas transactions in both the upstream and the downstream sectors. This is not an attempt to provide a comprehensive definition of oil and gas law. Rather, it is an attempt to describe what oil and gas law mean for the purpose of this study. However, as indicated in the previous chapter, it should be noted that this study does not cover the regulation of oil and gas resources in the downstream sector. It is only limited to the upstream sector.

From a property law perspective, this chapter addresses the issue of ownership of oil and gas resources. This issue is also related to or guided by the international law doctrine of PSNR. From an administrative law angle, this chapter will look at the regulation of exploitation of petroleum resources, in terms of the issuing of licences to private applicants by a state organ in terms of an enabling statute (a typical Petroleum Law or Act). The chapter also addresses the contractual law aspect of oil and gas law by looking at the different petroleum contractual arrangements that are entered into between host governments and the IOCs. These include concessions, PSCs/PSAs, service contracts, and a combination of two or more of these contracts. The chapter only addresses the environmental law aspect of oil and gas law in the context of the discussion of ownership, licensing and contractual arrangements referred to above. For

[83] See also Smith *et al* n 82 *supra* at 557.

[84] The list is not exhaustive. It only covers those areas of law that would, in one way or another, guide this study. Other areas of law having an impact on oil and gas law include, among others, tort law, trust law, and the law of the sea. These areas are, however, beyond the scope of this study and may only be referred to in passing and merely for purposes of clarity.

instance, compliance with environmental legislation in different geographical jurisdiction as well as international instruments, such as Principle 21 of the Stockholm Declaration issued by the United Nations Conference on the Human Environment of 1972 and the Rio Declaration,[85] are only being referred to in this context. Environmental law issues, in general, are therefore not a focal point of this study. The same applies to international law. African customary law and Islamic law are only discussed briefly in the context of ownership of oil and gas resources.

The chapter, therefore, only focuses on laws regulating the upstream activities of oil and gas resources. Although referring to upstream activities only, reference to 'laws' in this context should be understood in a wider context to include not only legislation but also the different petroleum contractual arrangements, for the exploration and production of oil and gas resources, that are entered into between the host governments and IOCs.[86]

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[85] The Rio Declaration on Environment and Development, and the United Nations Conference on Environment and Development, U.N Doc. A/CONF.151/5/Rev. 1 (1992).

[86] Contractual arrangements that are excluded include joint operating contracts (contracts between co-owners or co-tenants of oil and gas property that is being jointly operated in which the initial drilling, future development, future operations, and accounting for the oil and gas, and the sale of the oil and gas are set out and agreed upon), unitisation agreements in terms of which several oil wells, each well producing oil and gas from a common reservoir, are owned by different people and are jointly operated as one unit (unitisation) in order to maximise the production of the reservoir), farmout agreements (contracts wherein an interest in the acreage is given in return for either testing or drilling operations on the acreage. In return for an interest in the property, another person agrees to undertake the testing for oil and gas deposits or for drilling a well), gas balancing agreements, drilling contracts (agreements for the drilling of one well or several wells that are entered into with drilling contractors— persons who owns drilling rigs and equipment— by the persons owning the mineral rights), purchase and sale agreement, contract for short-term sale, and purchase of natural gas (agreements for the sale or purchase of natural gas either to a pipeline or to an end user). See generally Martin TA 'Model Contracts: A Survey of the Global Petroleum Industry' 22(3) (2004) *JENRL* 281; Lowe JS 'Analyzing Oil and Gas Farmout Agreements' 41 (1987) *Sw LJ* 759, 763-64; and David MR *Upstream Oil and Gas Agreements* (Sweet & Maxwell 1996) 33.

As indicated earlier, these include concessions, in both the traditional and the modern sense of the word, service contracts, PSCs/PSAs, JVs, and the so-called 'hybrid' contracts.

As this chapter is a general overview of the different regulatory or licencing models, it provides an introductory contextual theoretical and conceptual framework about upstream oil and gas law. The chapter begins with an exposition of the ownership of oil and gas resources and the doctrine of PSNR. A discussion of different licensing regimes or models for the regulation of oil and gas exploration and production flows naturally from this exposition. These models are the Norwegian carried-interest system, the British discretionary system, and South Africa's unique model. These are the models in terms of which the different oil and gas laws of Angola, Nigeria, and South Africa are shaped.

This general overview, therefore, provides a proper contextual understanding of the adoption of the different regulatory or licensing models or systems applicable to these different African states, namely Angola, which has adopted the Norwegian model, and Nigeria which has adopted the British model. This provides a sound theoretical basis for the subsequent chapters in which the manifestations of these models in Angola and Nigeria will be critically discussed, analysed, and compared. Each of chapters 3 and 4 therefore focus on one model. Due to the fact that South Africa adopted a different and alternative licensing system, a separate chapter (chapter 5) exclusively dedicated to this unique model will follow subsequently.

2.2 The Ownership of Oil and Gas Resources *in situ*

The property law aspect of oil and gas law shall serve as a point of departure, and in this context the principle of PSNR must also be considered.

The concept of 'ownership' refers to an almost complete or absolute real right to property limited only by law.[87] In determining ownership of oil and gas rights, a distinction needs to be made between the common law, civil law, Islamic law and African customary law.

2.2.1 Ownership under the Common Law

The concept 'common law' traditionally refers to the family of Anglo-American inspired legal systems'.[88] Common law legal systems rely on the judicial development and evolution of general principles of law, and in particular natural justice norms. Hence earlier judicial and, in certain instances, even administrative decisions are considered precedents and vested with legal authority.[89] Common law systems provide for greater scope for discretionary and pragmatic approaches to the particular problems that appear before the judiciary. Precedents in common law systems are more often than not inspired by leading cases and established case law in Britain and the USA. In fact the two countries are referred to as the original and typical common law states.[90]

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[87] For a discussion of ownership of property in the South African context in general, see *Gien v Gien* 1979 2 SA 1113 (T).

[88] See Braut GS & Lindoe PH 'Risk Regulation in the North Sea: A Common Law Perspective on Norwegian Legislation' 14(1) (2010) *Safety Science Monitor* 1; Modéer KÅ 'Mixed Legal Systems and Coloniality' A revised speeches at an international conference on the *Construct of a Global Legal Culture*, Asia – Europe and Global Processes, at National University of Singapore, March 14–16, 2001 and at University of Cape Town, November 2002; available at http://ivr2003.net/idc/literature/kam_01.pdf (accessed 12 May 2010) p 1; and Farran S 'Legal Culture and Legal Transplants: England and Wales' available at http://biblio.juridicas.unam.mx/libros/7/3194/11.pdf p. 1 (accessed 12 may 2010).

[89] See Braut & Lindoe n 90 *supra*.

[90] See Braut & Lindoe n 90 *supra*; and Modéer n 90 *supra*.

The early development of oil and gas resources is inextricably linked to these common law jurisdictions, particularly in the USA in the 1850s.[91] According to Miller, although commercial production of oil was first accomplished near Titusville, Pennsylvania in the USA in 1859, and the first commercial oil discovery in a 'public land state' was not made until 1875 in California.[92]

2.2.1.1 The General Rule under the Common Law: *Cuius est Solum eius est Usque ad Coelum et ad Inferos*

The general rule under the common law was that minerals and petroleum resources *in situ* belonged to the owner of the land in accordance with the maxim: *cuius est solum eius est usque ad coelum et ad inferos* or the '*ad coelum principle*' ('to whom belongs the soil it is his, even to Heaven, and to the middle of the earth').[93] According to van der Schyff, 'this maxim [was] imported by the Glossators during the Middle Ages'.[94] Franklin and Kaplan believe that it is not derived from the Roman law, but ascribed to Accursius, a thirteenth century Italian commentator.[95] Be that as it may, this rule dates back to

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[91] See Miller DW 'The Historical Development of the Oil and Gas Laws of the United States' 15(3) (1963) *California Law Review* 506-534. See also Kramer BM 'The Interaction between the Common Law Implied Covenants to Prevent Drainage and Market and the Federal Oil and Gas Lease' 15 (1995) *Journal of Energy, Natural Resources & Environmental Law* 1; and Salter JR *U.K. Onshore Oil and Gas Law* (London Sweet & Maxwel 1986) 7.

[92] See Miller n 93 *supra*.

[93] Loosely translated, this principle means that the owner of land does not only own the surface of that land but also owns everything beneath the surface of that land to the centre of the earth. In short the '*ad coelum'* principle. See Smith *et al* n 82 *supra* at 228.

[94] See Van der Schyff E 'South African Mineral Law: a Historical Overview of the State's Regulatory Power Regarding the Exploitation of Minerals' 64 (July 2012) *New Contree* 131 at 133. See also Dale MO *A Historical and Comparative Study of the Concept of Acquisition of Mineral Rights* (LLD, UNISA, 1979) 78.

[95] See Franklin BLS & Kaplan M *The Mining and Mineral Laws of South Africa* (Durban, Butterworths 1982) 4.

thirteenth century Europe, and it became an accepted doctrine in English law by the sixteenth century.[96]

However, although in the common law jurisdictions, property ownership rights were, in accordance with the *ad coelum* principle, traditionally deemed to extend to anything found under the ground of the land, as well as above it into the atmosphere,[97] statutory provisions amended this rule to the effect that certain natural resources including petroleum *in situ* are deemed to be owned exclusively by the state and administered by government.[98] For instance, until the enactment of the Petroleum (Production) Act of 1934 in Britain, petroleum *in situ* belonged to the surface owner under the ordinary common law *ad coelum* principle.[99]

2.2.1.2 The Statutory Exception to the Common Law: the General Practice of Exclusive State Ownership

As an exception to the general common law rule of *ad coelom*, a general practice has emerged in terms of which host governments vest ownership of petroleum resources in the state in terms of statutes.[100] As Onorato and Park note, in terms of this general practice,

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[96] See chapter 3 of the Petroleum Report of the Waitangi Tribunal available at http://www.waitangi-tribunal.govt.nz/scripts/reports/reports/796/F0155041-F7CD-4DB3-B9BE-D38BAE2405EE.pdf (accessed 09 May 2013).

[97] In Africa, common law legal systems are generally based on English law, for instance Uganda, Nigeria and Zambia. An exception in this regard is Liberia whose legal system is based on the USA common law.

[98] For instance, Nigeria, South Africa, Libya, Venezuela, Saudi Arabia, Iran, Kuwait, the Arab Gulf countries, Algeria and Angola.

[99] See Smith *et al* n 82 *supra* at 228.

[100] See Onorato WT & Park JJ 'World Petroleum Legislation: Frameworks that Foster Oil and Gas Development' 39(1) (2001) *Alberta Law Review* 70 at 73 to 74. See also Al-Qasem n 83 *supra* at 17.

> [the] state asserts and confirms that all petroleum (normally a defined term) lying within its jurisdiction, both onshore and offshore (including offshore areas where it exercises exclusive economic interest over such resources), is the exclusive property of the state. Any provisions to the contrary in other laws or rights granted or vested thereunder in derogation of this are expressly superseded by this provision in the Petroleum Law. This approach is consistent with applicable international standards and established practice on the topic. While there are a few significant exceptions to this general practice (for example, where land tenure systems are predominantly biased [notably found in the United States, excluding state lands, federal lands, the continental shelf under state jurisdiction and the outer continental shelf under federal jurisdiction. In fact, despite private land ownership as a system, the state is by far the largest owner of land in the US] toward private sector ownership, including private ownership of subsurface mineral rights unsevered from the entire land parcel), these exceptions are a marked minority view which evolving international practice on the question has not chosen to assimilate or replicate.[101]

Thus section 1 of the UK Petroleum (Production) Act of 1934 provides that the property in petroleum existing in natural condition in strata in Britain is vested in the state and the state shall have the exclusive right of searching and boring for and getting such petroleum'.

The South African legal system is also mainly common law based.[102] As van der Schyff correctly indicates, 'South African mineral [and petroleum] law has always been based

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[101] *Ibid*.

[102] It should be noted that South Africa does not have a 'pure' common law system based on English law, but has mixed system combining both the common law, civil law and African customary law systems. As Modéer correctly indicates, 'the South African legal culture is mixed into three general parts: (1) Dutch-roman law of the 17th and 18th centuries, (2) English common-law and the 19th and 20th centuries, as well as (3) African native/traditional law'. It is therefore a mixed legal system under the current constitutional dispensation. However, the common law legal culture still dominates the South African legal system. See Modéer n 90

on the Roman and Roman-Dutch law premise that the landowner is also the owner of the minerals embedded in and under the soil of the land he owned'.[103]

However, after centuries of application of the Roman law and traditional common law rule of the extension of ownership of property rights to anything found underneath the surface, a radical departure from this legal tradition was achieved in terms of the MPRDA.[104] Since 2002 the MPRDA provides for state sovereignty and custodianship of petroleum resources. Section 2(a) of the MPRDA stipulates that 'the internationally accepted right of the state to exercise sovereignty over all mineral and petroleum resources within the Republic' is recognised'. Further, it is stated that the '…petroleum resources are the common heritage of all the peoples of South Africa and the state is the custodian thereof for the benefit of all South Africans'.[105]

In Nigeria, which is also common law jurisdiction, the entire property in the control of all mineral oil and natural gas in, under or upon any land, territorial waters or Exclusive Economic Zone (EEZ) are vested in the federal government.[106]

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supra. Pienaar also indicates that 'the South African legal system is based predominantly on a mixture of civil law (Roman-Dutch) and English common law principles. Not only South African common law principles established and applied by case law, but also legislation forms part of this mixture. In academic writing Roman-Dutch, European civil law and English common law jurists are mainly cited as authority for South African common law principles, thus firmly establishing the South African legal system as a mixed jurisdiction'. See Pienaar GE 'The Methodology Used to Interpret Customary Land Tenure' 15(3) (2012) *PER / PELJ* 153 / 183.

[103] See Van der Schyff n 96 *supra* at 133. She also refers to *Trojan Exploration Co v Rustenburg Platinum Mines Ltd*, 1996, (4), SA 499 (A), p. 537C; and Mostert H & Pope A *The Principles of the Law of Property in South Africa* (Cape Town, Oxford University Press 2010) 269.

[104] The MPRDA, as amended by Act 49 of 2008, is the principal Act regulating activities in the upstream petroleum sector. See n 37 *supra*.

[105] Section 3(1) of the MPRDA.

[106] See s 44(3) of the 1999 Constitution of the Federal Constitution of Nigeria. It should be noted that in the Federal Republic of Nigeria, the National Parliament has exclusive legislative

Under the common law, state ownership of natural resources is also referred to as the doctrine of national ownership.[107] Its rationale is to secure the sustainable exploitation of resources for the benefit of all present and future generations.[108] This theory of national ownership is based on the doctrine of PSNR.[109]

2.2.1.3 Exception to the General Rule under the Common Law: State and Private Ownership

As is the case with Canada, the USA also retains, at least in part, private ownership rights on petroleum resources, as an exception to what has become the general rule of national ownership, under the common law jurisdictions.[110] However, both the USA and Canada recognise state ownership of natural resources alongside private resource ownership.

2.2.1.3.1 The USA

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authority over mines and minerals, including hydrocarbons (see s 39 of the Exclusive Legislative List).

[107] See Iweri O 'What Effect does the Ownership of Resources by the Government have on its People: a case Study of Nigeria' available at www.dundee.ac.uk/cepmlp/gateway/files.php?file=CAR-11_37...pdf 4 (accessed 19 May 2010).

[108] *Ibid.*

[109] See the discussion of this doctrine in 2.3 below.

[110] See Al-Qasem at n 82 *supra* at 17; Dam n 1 *supra* at 3; Smith EE & Dzienkowski JS 'A Fifty-year Perspective on World Petroleum Arrangements' 24 (1989) *Texas International Law Journal* 13 at 16; and Onorato WB 'Legislative Framework used to Foster Petroleum Development' *Policy Research Working Paper 1420 of the World Bank* Feb 1995 at 6.

In the USA, there are three main theories of ownership of oil and gas resources. These are the absolute ownership or 'Texas' theory, the qualified interest or 'Pennsylvania' theory, and the 'non-ownership' or Oklahoma theory.[111]

The absolute ownership theory originated from Texas, the largest oil producing state in the USA.[112] This theory postulates a fee simple ownership of oil and gas law of the land under which it is found.[113] As Al-Qasem indicates, the general rule in the USA, in terms of this theory, is that 'the owner of a tract of land acquires title to the oil and gas which he produces from wells drilled thereon, although it may be proved that part of such oil or gas migrated from adjoining lands'.[114] Al-Qasem indicates that 'the owner of land under which oil and gas lie is the absolute owner of them in place in the same manner and to the same extent as is the owner of solid minerals'.[115] It should be noted that this also includes the state. In other words, the state is the owner of oil and gas underneath state-owned land.

This theory is based on two similar common law maxims, namely the '*quid quid platatur solo solo cedit* maxim, according to which the owner of land owns everything beneath it, and the *cujus est solum, ejus est usque ad coelum et ad inferos* maxim,[116] or the so-

[111] See Smith & Dzienkowski n 112 *supra* at 5.

[112] *Ibid*.

[113] *Ibid*.

[114] See Al-Qasem n 83 *supra* at 17.

[115] *Ibid*.

[116] See Lauterpacht H *International Law Reports* (Gorman Press 1989) 814; Riley T 'Wrangling with Urban Wildcatters: Defending Texas Municipal Oil and Gas Development Ordinances against Regulatory Takings Challenges' 3(2) (2007) *Vermont Law Review* 351 at 357 to 358; Sprankling JG 'Owning the Center of the Earth' 55 (2008) *UCLA Law Review* 979 at 980; Smith *et al* n 82 *supra* at 228. See also Miller n 93 *supra*; quoting Blackstone who indicated that '[l]and hath also, in its legal signification, an indefinite extent, up-wards as well as downwards. *Cujus est solum, ejus est usque ad coelum* [whoever has the land possesses all the space upwards to

called '*ad coelum*' doctrine, in terms of which the owner of land owns anything from the 'heavens above the surface of the land to the core of the earth beneath it'.[117] This theory can be traced back to 1766, when Blackstone proclaimed the doctrine in his famous treatise *Commentaries on the Laws*.[118]

Oil and gas are fugacious in nature. This is the key characteristic that distinguishes oil and gas from solid mineral substances. Solid minerals are relatively stationary.[119] As a result of the migratory nature of oil and gas, it has become difficult to determine ownership of oil and gas *in situ*. This is one of the flaws of the theory of absolute ownership because it is difficult for an individual to claim ownership of fugacious substance such as a hydrocarbon because it can spread over different lands or zones.[120]

The second flaw of this theory is that it overlooks the fact that petroleum deposits like oil and gas are not only found onshore. A reasonable percentage of these resources are found in continental shelves and EEZs of states. An individual cannot lay claim to

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an indefinite extent], is the maxim of the law; upwards, therefore, no man may erect any building, or the like, to overhang another's land: and downwards, whatever is in a direct line between the surface of any land and the centre of the earth, belongs to the owner of the surface; as is every day's experience in the mining countries. So that the word "land" includes not only the face of the earth, but everything under it, or over it'.

[117] See Lauterpacht n 118 *supra* & Lowe n 82 *supra* at 8.

[118] See Blackstone W *Commentaries on the Law of England* 18, as referred to by Sprankling n 118 *supra* at 982-983.

[119] *Ibid*. See also *Blakes Lawyers* 'Overview of Oil & Gas Law in Canada', available at http://www.blakes.com/english/legal_updates/reference_guides/Overview%20of%20O&G%20Law%20In%20Canada.pdf, p 4 (accessed 31 May 2010).

[120] See Iweri n 109 *supra* at 6.

ownership of these areas and therefore the *ad coelum* doctrine could not be applicable to them.[121]

In response to these particularities which Roman law, ignorant of the existence of oil and gas, could not have foreseen, the qualified ownership theory developed in Pennsylvania, USA.[122] This theory is based on an analogy of petroleum to a wild animal ('animal *farea* natural').[123] In the 1889 decision of *Westmoreland & Cambria Natural Gas Co. v. DeWitt*, the Pennsylvania Supreme Court reasoned that oil and natural gas were much like fugitive wild animals.[124]

In terms of the qualified ownership theory, just as a wild animal cannot be owned by an individual until it has been captured by such an individual, petroleum cannot be owned by any person until somebody captures it. In other words, for an individual to lay claim to ownership of petroleum, he must first capture it (you qualify for ownership of petroleum once you have captured it). This principle is commonly known as the rule of capture in the USA.[125]

In *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 05-0466 (Tex. 8-29-2008), the Texas Supreme Court pronounced on the rule of capture as follows:

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[121] See Part 5 and 6 of the Law of the Sea, on the EEZ and Continental Shelves, 1982 United Nations Convention of the Law of the Sea (UNCLOS).

[122] See Iweri n 109 *supra* at 6.

[123] See Riley n 118 *supra* at 358.

[124] 18 A. 724 (Pa. 1889).

[125] See Lauterbacht n 118 *supra*. See also Lowe n 82 *supra* at 9; Al-Qasem n 83 *supra*; Ely N 'Legal History of Conservation of Oil and Gas. A Symposium Source' 53(6) (April 1940) *Harvard Law Review* 1070-1074 at 1071; and Smith *et al* n 82 *supra* 236; and Maas WF *The Impact of the Utilisation of Natural Gas Resources on the South African Economy* Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Commerce in the Subject of Economics at the University of South Africa 1990 at 23.

> [t]hat rule gives a mineral rights owner title to the oil and gas produced from a lawful well bottomed on the property, even if the oil and gas flowed to the well from beneath another owner's tract. The rule of capture is a cornerstone of the oil and gas industry and is fundamental both to property rights and to state regulation.

The flaw of this theory is its equation of petroleum with wildness.[126]

Departing from both the absolute and the qualified ownership theory is the theory of 'non ownership'.[127] In terms of this theory, petroleum can neither be owned absolutely nor in a qualified manner (that is, by being captured). This theory originates from Oklahoma, USA.[128] It is based on an incorrect premise that since petroleum is fugacious, it is incapable of ownership. However, as Iweri indicates, petroleum also occurs in a physical state and is therefore capable of ownership.[129] Iweri correctly indicates that it will be too naïve to conclude that petroleum is incapable of ownership because it is in a fugacious nature.[130]

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[126] See Iweri n 109 *supra*; and Merrill RI 'Ownership of Mineral Rights under Texas Law' available at http://www.fabioandmerrill.com/CM/Custom/Ownership-of-Mineral-Rights-Under-Texas-Law.PDF (accessed 31 May 2010) p 13. As Merrill indicates, this case is the most recent in a long history of litigation involving these parties. There was an interpleader suit filed by Coastal in 1978 due to mineral/royalty ownership problems with regard to some of the land involved in the *Coastal v. Garza* suit, which was settled by an agreed judgment in 1982. Then in 1988, the suit of *Juan Lino Garza, et al. v. Elizabeth H. Coates Maddux, et al*, Cause No. C-035-88-G in the 370th Dist. Ct., Hidalgo County, Tex., was filed1. *Garza v. Maddux* was resolved 11 years later by the appellate decision in *Garza v. Maddux*, 988 S.W.2d 280 (Tex.App.-Corpus Christi 1999, pet. denied). Another suit, *Amelia Garza de Salinas, et al. v. Elizabeth H. Coates Maddux, et al.*, was filed in late 1995 and docketed under Cause No. C-6239-. 95-B in the 93rd District Court of Hidalgo County, Texas.

[127] See Sprankling n 118 *supra* at 1009.

[128] See Iweri n 109 *supra* at 7.

[129] *Ibid*.

[130] *Ibid*.

In modern times, these common law theories of ownership have been substantially modified by statutes which promote governmental intervention in oil and gas production at the expense of traditional property rights.[131] For example, in oil and gas regions it is common to inject salt water or other liquids into the subsurface in order to create underground pressure that facilitates oil or gas production.[132]

2.2.1.3.2 Canada

As indicated already, like the USA, Canada provides for both private and state ownership of oil and gas. However, unlike the USA, there is no decisive theory for ownership of oil and gas *in situ* in Canada.[133] Canadian courts deal with the issue of ownership on a case by case basis.[134] The courts have avoided defining the legal character of oil and gas *in situ* and focused, instead, on what ownership interest is created under an oil and gas lease for land that is held in a fee simple estate.[135] The oil and gas lease is a *profit à pendre.* It therefore grants the holder a right to search for and win the oil and gas. The holder of a *profit à prendre* does not own the gas and oil *in situ* as the right is incorporeal in nature. A *profit à prendre* only allows the holder to server the oil and gas from the land and reduce them to his or her possession. This is probably due to the fugacious nature of oil and gas. According to *Blakes Lawyers*[136] the freehold oil and gas lease in Canada is a qualified interest and not a possessory ownership interest. The person who holds the *profit à prendre*, the lease, has the right to recover the oil and gas but this right does not constitute absolute ownership as it is limited by the migratory nature of oil and gas.[137]

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[131] See Sprankling n 118 *supra* at 1010.

[132] *Ibid*.

[133] See *Blakes Lawyers* n 121 *supra* at 4.

[134] *Ibid*.

[135] *Ibid*.

[136] See *Blakes Lawyers* n 121 *supra* at 6.

[137] *Ibid*.

Land that is owned by the Canadian federal or provincial government is deemed Crown land. The government generally leases its oil and gas resources to well-resourced and experienced oil companies through a Crown lease. This lease regulates the relationship between the government and the oil companies. The acquisition and development of Crown oil and gas is governed by legislation and regulations at both the federal and provincial levels of government.

2.2.2 Ownership under Civil Law

The phrase 'civil law system' is used in the English legal terminology to designate legal systems that are mostly based on codified law, rather than judicial legal precedents, as is the case under the common law systems.[138] Unlike in the common law system, in the civil law systems the codified body of statute law limits the exercise of judicial discretion, and judicial law making is generally rejected, as it would blur the separation of the legislative from the judicial power, in the context of the separation of powers doctrine. However, general abstract principles that inevitably contained in the legal codes, tends to invite the exercise of judicial discretion, leading to the establishment over time of a vast body of judicial legal authority that is considered strongly persuasive, albeit not constituting judicial precedents as common law systems would have it.[139]

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[138] See n 91 *supra*. See also generally Hertel C 'Legal Systems of the World – an Overview' 1(2) (2009) *Notarius International*; Terris D *et al The International Judge: An Introduction to the Men and Women who decide the World's Cases* (Brandies University Press 2007) 248-249; and Ohio State Bar Association *The Law and You: A Legal Handbook of Consumers and Journalists* (Ohio State Bar Association 2012) 5-6.

[139] See generally Zweigert K & Kötz H *An Introduction to Comparative Law* (USA Oxford University Press 3ed 1998).

Under civil law regimes,[140] the applicable codes govern ownership of the petroleum rights. As the civil law systems have their origins in Roman law, property rights in civil law systems strongly mirror Roman law.[141] Historically, principles of Roman law provided that private ownership included ownership to the centre of the earth and to the sky. Although these concepts have been codified, most states in civil law jurisdictions have eventually passed particular legislation to reserve subsurface rights to the state. The question of ownership of oil and gas resources does not arise where the entire subsurface is owned by the state. For instance, in terms of section 3 of the Angolan Petroleum Activities Act[142] 'petroleum deposits are an integral part of the public property of the State'. The right to explore, develop or produce oil and gas is granted by the state typically by a licence.

As the development of oil and gas originally commenced under common law jurisdictions,[143] civil law regimes initially lacked the necessary concepts to address issues relating to fugacious substances such as oil and gas. Many civil law regimes have therefore imported and codified concepts of oil and gas ownership from the common law regimes where these activities first occurred. Courts in civil law jurisdictions still tend to consider the common law precedence to address the fugacious nature of oil and gas law. It is important to note, however, that the distinction between the common law and civil law has become blurred.

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[140] These include, for instance, the Netherlands, France, Germany, and China. In Africa these includes Algeria (civil and religious law), Gabon, Burkina Faso, Burundi, Chad, Republic of Congo, Democratic Republic of Congo, Code d'Ivoire, Central African Republic, Ethiopia, Equatorial Guinea, Guinea (based on French law), Guinea-Bissau, and Cape Verde, Angola and São-Tomé (all based on Portuguese civil law).

[141] See Brants EHP *Liability for Damage to Public Natural Resources, Standing Damage* (2001 Kluiwer Law International) 36. The term 'civil law' refers to those jurisdictions which have adopted the European continental system of law derived essentially from ancient Roman law, but owing much to the Germanic tradition.

[142] Law No. 10/04 of 12 November 2004.

[143] See n 91 *supra*.

2.2.3 Ownership under Islamic Law

Under the Islamic law,[144] ownership of property in general is governed by the *Qur'an*.[145] The *Qur'an* allows for private ownership of property, subject to the rights of others and consideration of public interest.

Mineral laws in Islamic law are based on and are covered by the Islamic law of contracts.[146] The Arabic word *Aqd* (contract) literally means 'tie' or 'bond'.[147] During the first periods of Islam, four schools of Islamic jurisprudence took shape: the *Hanafi*; the *Maliki*; the *Shafie*; and the *Hanbali*.[148] These schools of thought were developed as groups of legal scholars. Each had its own method of interpreting the *Qu'ran* and the test to be applied to verify the authenticity of the sayings of the prophet.[149]

Principles of ownership of minerals are not consistent among the different schools of thought under Islamic law.[150] Under the *Hanafi* school of thought,[151] ownership of

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[144] In Africa the following countries apply Islamic law either partly or wholly: Libya and Sudan (Islamic Law), Morocco and Mauritania (mix of Islamic law and the French civil code); and some states in Northern Nigeria.

[145] The *Qur'an* is the central religious text of Islam, see an article on Oxford Islamic Studies online available at http://www.oxfordislamicstudies.com/article/opr/t125/e1945?_hi=18&_pos=789 (accessed 31 May 2010).

[146] See generally, Al-Jumah KM 'Arab State Contract Disputes: Lessons from the Past' *Arab Law Quarterly* 17(3) (2002) 215 at 234-238.

[147] *Ibid*.

[148] *Ibid*.

[149] *Ibid*.

[150] In *Saudi Arabi v Arabian American Oil Co*, the *Aramco* case 27 I.L.R., (1963), p. 116, as quoted by Al-Jumah n 148 *supra* at 233, the arbitration court stated that 'the regime of mining concessions, and consequently, also of oil concessions, has remained embryonic in Muslim Law and is not the same in different schools. The principle of one school cannot be introduced into another, unless it is done by an act of authority'.

minerals follows ownership of land.[152] In terms of the *Shafie* school of thought[153] hidden minerals follows land ownership while unhidden minerals are not owned.[154] Under the *Shafie* school of thought, where a mine is part of the state's domain, the sovereign has *Iqta*, the right of discretion to grant an exclusive concession subject to payment of a royalty.[155] Although the right of the discretion of the sovereign to grant exclusive concession originally applied to agricultural grants, it is currently applicable to mineral grants. Furthermore, valid agricultural analogies exist for concessions, and PSCs. Under the *Maliki* school of thought, [156] on the other hand, all natural resources are state owned.[157] According to the *Hanbali* school of thought, on the other hand, unhidden minerals, whether in private, dead or state-owned lands, cannot be owned privately.[158] This is due to the fact that private ownership might create hardship for society and that unhidden minerals are not part of the land.[159] In the case of hidden minerals in a dead land, merely digging them out cannot confer exclusive ownership. The investor should

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[151] The *Hanafi* school of thought is the most widely accepted school of thought among the Muslims today and is still adopted in many Arab and Muslim States, such as Egypt, Syria, Lebanon, Pakistan and Afghanistan. *Hanafi* is named after Abu Hanifa an-Nu'man ibn Thābit (699 - 767CE /89 - 157AH) who possessed an outstanding potential of reason. See in this regard, Al-Jumah n 148 *supra* at 234.

[152] See Al-Jumah n 148 *supra* at 235.

[153] The *Shāfie* school of fiqh, or religious law, within Sunni Islam is named after Imām ash-Shāfi'ī. This school of thought stipulates authority to four sources of jurisprudence, also known as the Usul al-fiqh. In hierarchical order the *usul al-fiqh* consists of: the *Quran*, the Sunnah of Prophet Muhammad, ijma' 'consensus', and qiyas 'analogy'.

[154] See Al-Jumah n 148 *supra* at 235.

[155] *Ibid*.

[156] The *Mālikī* is the third-largest of the four schools, followed by approximately 15 per cent of Muslims, mostly in North Africa, West Africa, United Arab Emirates, and some parts of Saudi Arabia.

[157] See Al-Jumah n 148 *supra* at 235.

[158] See Al-Jumah n 148 *supra* at 236.

[159] *Ibid*.

first dig out the minerals and should make it compliant to the requirements of society or the state should grant concession to work on the minerals.

2.2.4 Ownership under African Customary Law

As South Africa is a mixed legal system consisting of Roman-Dutch law, English common law[160] and African customary law, it is important to discuss ownership under African customary law as well. The Constitutional Court of South Africa in *Alexkor Ltd v Richtersveld Community* accepted historical evidence that suggested that mining in the indigenous territory of Namaqualand started long before annexation of that territory by the British administration in 1847.[161] History suggests that this community mined and used copper for adornment.[162] In the *Alexkor* case evidence was presented that the Nama people were observed smelting copper and using molten metal to make rings; working in copper plates as ornaments. Outsiders were not entitled to prospect for or extract minerals without obtaining permission from the community.

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[160] As du Plessis indicates 'the "common law" terminology can be confusing. Roman-Dutch law is based on Roman law, a statement that implies that the history of South African law has a Roman law foundation, a heritage South Africa shares with Western Europe. "Common law" as a term refers mostly to Roman-Dutch law as it was adapted and developed in South African case law and custom. "Common law" is usually distinguished from other sources of law such as legislation and customary law. Law, as developed in case law in England, is also referred to as "Common Law". This "Common Law" forms the basis of law in Anglo-American law and was scarcely influenced by Roman law. The law of equity, however, plays a significant role in the English "Common Law"'. See Du Plessis WJ 'African Indigenous Land Rights in a Private Ownership Paradigm' (14)7 (2011) *PER / PELJ* 45 / 261 at footnote 29. See also Pienaar n 104 *supra*.

[161] See *Alexkor Ltd v Richtersveld Community* 2003 12 BCLR 1301 (CC) paras 60-64.

[162] *Ibid*.

The court held that under the indigenous law legal system, ownership of natural resources in general vested in the community.[163] This is based on the principles of communal land ownership among indigenous peoples.[164] Natural resources are therefore not individually owned but they are owned communally. Although natural resources are owned by the community, the traditional authorities are the custodians of these resources on behalf of the community. No individual can therefore exploit natural resources without obtaining permission from the traditional authorities which must only grant such permission after consulting and obtaining a go-ahead from the community.[165]

The system of private or exclusive[166] ownership or of natural resources in general and oil and gas resources in particular are, therefore, not known in this legal system. Rather communal or inclusive[167] ownership is the norm in this legal system.

In *Alexkor*, the Constitutional Court of South Africa further held that ownership of natural resources or land cannot be determined by reference to the common law.[168] With reference to the decision of the Privy Council in *Oyekan v Adele*,[169] it was held that ownership has to be determined in accordance with indigenous law 'without importing

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[163] See *Alexkor* n 163 *supra* at paras 59, 60, 62 and 64. See also Haysom N & Kane S 'Negotiating Natural Resources for Peace: Ownership, Control and Wealth Sharing' a briefing paper at the 10 years mediation for peace of the Henry Dunant Centre for Humanitarian Dialogue, 2009, p 6, available at http://wwww.reliefweb.int/rw/lib.nsf/db900sid/SHIG-. 7XFGCJ/$file/HD_Oct2009.pdf?openelement (accessed 28 May 2010).

[164] See Pienaar G 'The Inclusivity of Communal Land Tenure: A Redefinition of Ownership in Canada and South Africa? 12(1) (May 2008) *Electronic Journal of Comparative Law (EJCL)* 1 at 9, available at http://www.ejcl.org (accessed 28 May 2010).

[165] See Haysom & Kane n 164 *supra* at 9; and Pienaar n 166 *supra*. See also *Richtersveld Community v Alexkor Ltd* 2003 6 SA 104 (SCA) para 18.

[166] See Pienaar n 166 *supra*.

[167] *Ibid*.

[168] See at *Alexkor* n 163 *supra* at para 50.

[169] [1975] 2 All 785 at 788G-H.

English conceptions of property law'.[170] In South Africa indigenous law is therefore not only an original and distinctive legal system but also an independent source of norms.[171] Ownership of land and natural resources therefore had to be determined by reference to indigenous law.[172] This could be determined from history and this history suggested that ownership vested in the community. Although du Plessis argues that that customary law cannot be described in common law concepts such as ownership, since the concepts used are culturally specific and foreign to indigenous law, she concedes that, at least with specific reference to natural resources (but not land), communal ownership could mean that these resources are held by 'a group in common (one property, separate but with the same title in land)'.[173]

Interestingly, in Angola the 2010 Constitution uniquely recognises and protects the right of rural communities to use and benefit from means of production in accordance with customary and state law.[174] Regrettably neither the South African nor the Nigerian Constitution has a similar or identical provision.

2.3 Permanent State Sovereignty over Natural Resources under International Law and Sustainable Use of Natural Resources

[170] *Ibid*.

[171] See *Alexkor* n 163 s*upra* at para 51. By customary law or indigenous law, we mean the law as practised by the community (the living law) and not codified or official indigenous law or academic indigenous law. For an understanding of this distinction, refer to *Bhe v the Magistrate, Khayelitsha; Shibi v Sithole* Case CCT69/03; *South African Human Rights Commission v President of the Republic of South Africa* [2004] ZACC 17; 2005 1 SA 580 (CC); 2005 1 BCLR 1 (CC) para 152.

[172] See Pienaar n 104 *supra* at 167/183.

[173] See Du Plessis n 162 *supra* at 52/261.

[174] See article 92 of the Constitution of Angola 2010.

As indicated earlier, the state ownership of natural resources under the common law is also referred to as the doctrine of national ownership.[175] The rationale behind this doctrine is to secure the sustainable exploitation of resources for the benefit of all present and future generations.[176]

2.3.1 The Evolution PSNR in International Law

The theory of national ownership is based on the doctrine of PSNR.[177]

As Smith indicates,

> [v]irtually all mineral ownership regimes are based on the jurisprudential theory of state sovereignty. The sovereign of a defined geographical area has an exclusive legal domain over the area, including its natural resources… the most common global regimes places ownership of resources in the government… Energy resources are subject to government-ownership in virtually all the countries except for North America. Today private ownership of natural resources is possible only in the United States of America, Canada and perhaps a few other countries. Even in the United States and Canada, the bulk of the mineral reserves are owned by the government.[178]

The essence of PSNR, is that in international law and thus in its relations with other states and non-nationals, a state exercises supreme authority, power or control over natural resources under its jurisdiction.[179] PSNR is therefore a comprehensive collection of rights and duties which entail a state's power to possess, use, freely dispose of, and

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[175] See Iweri n 109 *supra*.

[176] *Ibid*.

[177] *Ibid*.

[178] See Smith EE 'World Energy Resources: Ownership, Control and Development' in Smith *et al* (eds) *International Transactions* 2nd ed (Rocky Mountain Mineral Law Foundation 2000) 28 and 38, as quoted by Martin T in Werner J & Ali AH (eds) *A Liber Amicorum: Thomas Wälde: Law Beyond Conventional Thought* (1946 -2008) 172.

[179] See Smith & Dzienkowski n 112 *supra* at 27. See also Schrijver N *Sovereignty Over Natural Resources: Balancing Rights and Duties* (Cambridge University Press 2008) 3.

most importantly, regulate its natural resources.[180] Firstly, at the centre of PSNR is a state's sovereign right to use, exploit, and dispose of its natural resources.[181] Secondly, in terms of PSNR, a state enjoys a sovereign right to freely choose its economic, environmental, and developmental policies.[182] Thirdly, in exercising its PSNR, a state can freely regulate, and nationalise or expropriate its national resources.[183] Although it may seem as if PSNR entails wide and far-reaching rights or powers, such as freedom to use, exploit, possess, regulate, and nationalise or dispose of its natural resources, it is important to emphasise that PSNR is not absolute. [184] As Skjiver indicates, although various adjectives have been used to emphasis 'its hard-core status: in addition to "permanent", also "absolute", "inalienable", "free" and "full"', state sovereignty equated as it is with non-interference, with domestic jurisdiction and discretion in the legal sphere has become increasingly qualified,[185]

PSNR may be limited by a number of factors. These include generally accepted principles of international law,[186] including international agreements, and international environmental law. For instance, the international law principle of *pactum sunt servanda,*[187] which is also embodied in international agreements, provides for sanctity of contract. In other words, contracts entered into freely and in good faith must be

[180] See Hofbauer JA *The Principle of Permanent Sovereignty over Natural Resources and its Modern Implications* an LLM thesis submitted at the University of Iceland (August 2009) at 63.

[181] See Hofbauer n 182 *supra* at 13.

[182] See Hofbauer n 182 *supra* at 16.

[183] See Hofbauer n 183 s*upra* at 17.

[184] See Hofbauer n 183 *supra* at 84, and Perrez FX 'The Relationship between "Permanent Sovereignty" and the Obligation not to cause Transnational Environmental Damage' 26 (1996) *Environmental Law* 1187 at 1207.

[185] See Scrijver n 182 *supra*.

[186] See Viellevile DE & Vasani BS 'Sovereignty over Natural Resources versus Rights under Investment Contracts: which one Prevails?' 5(2) (April 2008) *Transnational Dispute Management (TDM)* 6.

[187] *Ibid*.

fulfilled.[188] It can also be limited by the rights of indigenous peoples residing within a state's territory.

PSNR is based on two related international law[189] concepts, namely the principle of state sovereignty and a state's right to self-determination.[190] As Thomashausen indicates,

> [f]ifty years ago, the 1962 UN GA Resolution on the Permanent Sovereignty over Natural Resources (PSNR) proposed to lay down new legal foundations for the exploration and exploitation of natural resources. The Declaration was inspired by the great decolonisation and self-determination quest following the end of World War II. The terms of reference for the drafting Commission for the Declaration specifically instructed it to determine the extent of the PSNR principle within the notion of self-determination. It should thus not be a surprise that the PSNR remained firmly grounded on traditional and absolutist conceptions of equal state and territorial sovereignty.[191]

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[188] See Daintith n 82 *supra* at 42.

[189] For instance on 19 December 2005, the International Court of Justice (ICJ) in the Case Concerning Armed Activities on the Territory of the Congo (*Democratic Republic of the Congo v Uganda*) declared that the principle of permanent sovereignty over natural resources is a 'principle of customary international law' (§ 244). See Bastos FL 'A Southern African Approach to the Permanent Sovereignty over Natural Resources and Common Resource Management Systems' available at http://www.wiwi.uni-siegen.de/rechtswissenschaften/oe-recht/tagungen/psnr/fokos-wp2013-01-bastos.pdf (accessed 26 April 2013) at p 3.

[190] See Perrez n 187 *supra* at 1187. See also Thomashausen A 'Investment Policy and Protection Aspects of Natural Resources: (Foreign) Investment Strategies in Africa' Paper presented at International Conference on Permanent Sovereignty over Natural Re-sources – Development of a Public International Law Principle and its Limits', Siegen, Germany 29th to 30th of January 2013, available http://www.wiwi.uni-siegen.de/rechtswissenschaften/oe-recht/tagungen/psnr/fokos-wp2013-03-thomashausen.pdf (accessed 26 April 2013).

[191] See Thomashausen n 192 *supra*.

As indicated earlier, there is, however, no universally accepted meaning of the concept 'sovereignty'.[192] According to Bunter, the meaning of 'sovereignty' is that the sovereign or the people of the nation, exercising their sovereign (supreme) power through their mandated legislation, cannot be challenged by any court; there is no higher power.[193] Bensson also defines sovereignty as 'supreme authority within a territory'[194] As Dugard indicates, 'sovereignty' was 'accurately described by arbitrator Max Huber in the *Island of Palmas Case*: "sovereignty in the relations between states signifies independence. Independence in regard to a portion of the globe is a right to exercise therein, to the exclusion of any other state, the function of a state"'.[195] According to Brilmayer[196] self-determination, on the other hand, means that 'every nation or people has a right to determine its own destiny.[197]

This international law doctrine of PSNR[198] gained momentum shortly after the Second World War. It became a central aspect of decolonistion and the concomitant right to self-determination.[199] It became a significant tool to assist developing states to regain control

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[192] As Dugard indicates, this concept is difficult to define. See Dugard J *International Law: A South African Perspective* (Juta & Co, Ltd 2011) 125 footnote 3. See also n 40 *supra*.

[193] See Bunter n 39 *supra* at 11.

[194] See Bensson S 'Sovereignty' at www.mpepil.com (accessed 24 June 2013).

[195] See Dugard n 194 *supra*. See also n 40 *supra*.

[196] See Brilmayer L 'Secession and Self-determination: A Territorial Interpretation' 16 (1999) *Yale Journal of International Law* 177. See also generally Cassese A *Self-determination of Peoples: a Legal Reappraisal* (Cambridge University Press 1996); and McCorquodale R 'South Africa and the Right to Self-determination' 10 (1994) *SAJHR* 4.

[197] It should also be noted that the right to self-determination includes the right of a people of an existing state to choose freely their own political system and to pursue their own economic, social, and cultural development or what is referred to as 'internal self-determination'. See Thürer D & Burri T 'Self-determination' at www.mpepil.com (accessed 24 June 2013).

[198] See Bunter n 39 *supra* at 16.

[199] See Daes EA 'Prevention of Discrimination and Protection of Indigenous Peoples: Indigenous Peoples' Permanent Sovereignty over Natural Resources' a working paper of the United Nations

over their economic activities, including exploitation of natural resources, which were unjustifiably and inequitably controlled by their colonisers prior to decolonisation.[200] This was therefore a first step in the development of a new international economic order (NIEO).[201] That is an economic order under which wealth would be distributed fairly between developed and developing countries, after the Second World War.[202] The need for the NIEO was prompted by an old economic order which was perceived as a hindrance to the economic development of the developing states after colonisation.[203] The process of creating NIEO therefore resulted from the gradual attainment of independence by developing states from colonial control and domination, within the UN system, which enabled states, both developed and developing, to come together in a democratic global manner[204] to discuss issues of common concern internationally, such as the exploitation of natural resources. The fact that natural resources were exploited and controlled by IOCs was, in particular, contested by the developing countries as a severe encroachment upon their newly won independence.[205]

That explains why, the origins of PSNR are found in a number of resolutions promoted by newly independent and decolonised states through the United Nations General Assembly (UNGA). First, the United Nations (UN) passed United Nations General Assembly Resolution (UNGAR) No. 626 (VII) of 21 December 1952. This resolution, the first UNGA text to use the term 'permanent sovereignty over natural resources',[206]

Economic and Social Council's Working Group on Indigenous Populations 30 July 2002;. See also Thomashausen n 192 *supra*.

[200] See generally, Hofbauer n 183 *supra*.

[201] See Taverne n 82 *supra* at 223; Daintith n 82 *supra* at 48; and Smith *et al* n 82 *supra* at 133, also referring to the UN Declaration on the Establishment of a NIEO UNGAR 3201 (1974).

[202] See Taverne n 82 *supra* at 223.

[203] See Taverne n 82 *supra* at 224.

[204] *Ibid.*

[205] *Ibid*.

[206] *Ibid*.

provided for the peoples' right to exploit their natural resources as part of their sovereignty.[207]

Six years later, on 12 December 1958, the UN passed UNGAR 1314 (XIII). This Resolution established the Commission on PSNR. This Commission was mandated to conduct a full survey of the status of PSNR over natural wealth and resources as a basic constituent of the right to self-determination, with recommendations, where necessary, for its strengthening.[208]

Ten years after the first UNGAR on this aspect, the UNGA passed UNGAR No. 1803 (XVII) on 14 December 1962. This Resolution provided that nationalisation measures could only be implemented for public purposes, security or national interest, subject to the investor receiving 'appropriate compensation' in accordance with domestic and international law. Although this resolution recognised the state's right to nationalise its natural resources for public purposes, it also provided that investment agreements entered into by states 'shall be observed in good faith'.[209]

Among all these Resolutions, it is generally accepted that it is the UNGAR 1803 (XVII) of 14 December 1962, that gave the principle of PSNR its prevalence under international law.[210] Article 1 of this resolution, titled 'Permanent Sovereignty over Natural Resources', provides that-

> [t]he right of peoples and nations to permanent sovereignty over their wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the state concerned.[211]

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[207] See the Resolution available at http://www.un.org/documents/ga/res/7/ares7.htm (accessed 31 May 2010).

[208] This commission consists of Afghanistan, Chile, Guatemala, the Netherlands, the Union of Soviet Socialist Republics, the United Arab Republics and the United States of America. See the Resolution available at http://www.un.org/documents/ga/res/13/ares13.htm (accessed 31 May 2010).

[209] See paragraph 8 of this Resolution.

[210] See Taverne n 82 *supra* at 224.

In paragraph 2, the Resolution continues as follows:

> [t]he exploration, development and disposition of such resources, as well as the import of foreign capital required for these purposes, should be in conformity with the rules and conditions which the people and the nations freely consider to be necessary or desirable with regard to the authorization, restriction or prohibition of such activities.

In terms of paragraph 3,

> in case where authorization is granted, the capital imported and the earnings on that capital shall be governed by the terms thereof, by the national legislation in force and by international law.

The Resolution further provided that-

> nationalisation, expropriation or requisitioning shall be based on grounds or reasons of public utility, security or the national interest which are recognized as overriding purely individual or private interests, both domestic and foreign. In such cases the owner shall be paid appropriate compensation, in accordance with the rules in force in the State taking such measures in the exercise of its sovereignty and in accordance with international law.[212]

A striking feature of this Resolution, which perhaps distinguishes it from subsequent Resolutions, is its explicit and conditioning reference to international law. It is this element which made this Resolution particularly popular among the developed states.[213] However, the reference to existing and established international law did not find favour among the developing states as they viewed international law to be the law of the

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[211] See para 1 of the Resolution available at http://www2.ohchr.org/english/law/resources.htm (accessed 31 May 2010].

[212] See para 4 of the Resolution.

[213] See Taverne n 82 *supra* at 224.

developed Western states, which thus far ignored their different economic condition.[214] The developing states therefore wished to have compensation for nationalisation determined in terms of their domestic laws rather than international law. The debate about international law versus domestic law, for purposes of nationalisation, and the concomitant compensation, reached finality on adoption of various subsequent UN resolutions, which were not supported by the developed states.

In 1966 the UNGA passed UNGAR No. 2158 (XXI), which provided that the exploitation of natural resources in each country shall always be conducted in accordance with its national laws and regulations.[215]

On 1 May 1974, the UNGA passed UNGAR 3201 (S- VI); which provided for full permanent sovereignty of every state over its natural resources and all economic activities. In terms of this later resolution, each state's entitlement to exercise effective control over natural resources and their exploitation with the means suitable to its own situation, including the right to nationalisation or transfer of ownership to its nationals was recognised. It should be noted that there is no express or implied mention of international law in this resolution.

This resolution was followed, on 12 December 1974, by the passing of UNGAR 3281 (XXIX), which provided for free and full exercise of sovereignty of states to economic activities including possession, use and disposition of their natural resources.[216] Although this resolution reaffirmed the payment of 'appropriate compensation' for the nationalisation of property which must be done in good faith, it provided that disputes

[214] See Taverne n 82 *supra* at 224.

[215] See the Resolution available only at http://www.un.org/documents/ga/res/21/ares21.htm (accessed 31 May 2010).

[216] See para 2 of the Resolution available at http://www.un.org/documents/ga/res/29/ares29.htm (accessed 31 May 2010). Also see for instance, Al-Qasem n 83 *supra* at 9-10.

regarding such compensation should only be resolved by reference to the state's domestic law unless there was an agreement calling for other peaceful means.[217]

2.3.2. PSNR in International Law and Sustainable Development: a Paradigm Shift from the Right-based Approach' to the Recognition of Duties

It is clear from the above discussion that PSNR was originally concerned with the rights of developing countries to economic development and the right to self-determination of the previously colonised peoples.[218] As Miranda correctly indicates, 'the principle of permanent sovereignty over natural resources continued to evolve not only as part of global debates regarding the political right of colonized peoples to self-determination, but also the human rights of peoples to self-determination'[219] Thus in the context of the post the Second World War human rights recognition and development, PSNR was framed as an instrument to protect and promote peoples' human right to self-determination, and states' rights of non-interference. This approach to PSNR often neglected or ignored the effects of natural resources exploitation on the environment. Thus while states where entitled to exercise its rights to PSNR and self-determination, states were not necessarily required to honour their duties to protect the environment in exercising this right. This therefore ignored the need to integrate the developmental and environmental concerns.

However, in modern times emphasis has shifted from this rights-based focus to recognition of duties as well. As Hofbauer indicates 'environmental norms can be said to

[217] See para 2(c) of this Resolution.

[218] See Schrijver N 'Permanent Sovereignty over Natural Resources' in Wolfrum R (ed) *The Max Planck Encyclopedia of Public international Law*, www.mpepil .com/home (accessed 01 April 2014). See also Marinda LP 'The Role of International Law in Intra-state Natural Resource Allocation: Sovereignty, Human Rights, and Peoples-Based Development'45 (785) (2012) *Vanderbilt Journal of Transnational Law* 785 at 792-793.

[219] See Miranda n 220 *supra* at 798. See also Schijver n 182 *supra* at 20.

have found their reflection in the obligations opposing the rights of PSNR'.[220] As Scrijver indicates, 'apart from rights, duties relating to resource management can also be inferred and that under modern international law they are being given significance'.[221] This is due to the increased awareness in international law about environmental protection and the duties of the states to protect the environment. Scrijver also asserts that the exercise PSNR should coincide with the sustainable use of natural wealth and resources.[222] Thus building on the 1972 Stockholm Declaration of the United Nations Conference on the Human Environment and the Rio Declaration of 1992], sovereignty over natural resources was increasingly placed in an environmental context.

While PSNR initially focused primarily on the economic development of developing countries, sustainable development extends this focus to also include 'the conservation and rational use of natural resources'.[223] Thus the need to reconcile economic development with environmental protection was finally coined in the notion of 'sustainable development'. The term 'sustainable development' has been defined by the World Commission on Environment and Development in its 1987 report, entitled *Our Common Future* ('the Brundtland Report'), as development that *'*meets the needs of the present, without compromising the ability of future generations to meet their own needs.'[224] Although this is regarded as the most internationally accepted definition of sustainable development,[225] as Tladi argues, it is susceptible to 'various and conflicting

[220] See Hafbauer n 182 *supra* at 38.

[221] See Schijver n 182 *supra*.

[222] See Schijver n 182 *supra* at 24.

[223] *Ibid*.

[224] See Wellmer FW & JD Becker-Platen 'Sustainable Development and the Exploitation of Mineral and Energy Resources: a Review' *International Journal of Earth Sciences (Geol Rundsch)* (2002) 91 at 723.

[225] *Ibid*.

interpretations and can thus lead to indeterminacy'.[226] This has also been echoed by Ncgobo J in the Constitutional Court of South Africa in the *Fuel Retailers* case.[227]

> [c]ommentators on international law have understandably refrained from attempting to define the concept of sustainable development. Instead they have identified the evolving elements of the concept of sustainable development. These include the integration of environmental protection and economic development (the principle of integration); sustainable utilisation of natural resources (the principle of sustainable use and exploitation of natural resources); the right to development; the pursuit of equity in the use and allocation of natural resources (the principle of intra-generational equity); the need to preserve natural resources for the benefit of present and future generations (the principle of inter-generational and intra-generational equity); and the need to interpret and apply rules of international law in an integrated systematic manner (footnotes omitted).

As Hofbauer indicates, in the context of PSNR, 'states on the one hand enjoy sovereignty over their natural resources, and on the other hand, they are under the obligation to not cause damage to the territories of other states. This interplay between the two separate sets of rules has led to the development of an independent principle – the principle of sustainable use'.[228] As he continues, 'the growing trend to recognize certain resources as global public goods has necessitated a re-conceptualized approach to the principle of PSNR, requiring integrative measures between resource management and environmental protection'.[229] Hofbauer identifies a number of obligations to support this move. First he identifies the obligation not to cause damage and the principle of equitable utilisation, partly limit a state's sovereignty over natural resources.[230]

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[226] Tladi D *Sustainable Development in International Law: an Analysis of the Key Enviro-Economic Instruments* (2007 PULP) 3.

[227] See *Fuel Retailers Association of Southern Africa v Director-General Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province* 2007 6 SA 4 at para 47 at para 51.

[228] See Hofbauer n 183 *supra* at 35.

[229] See Hofbauer n 183 *supra* at 36.

[230] See Hafbauer n 183 *supra* at 38 to 39

Secondly, he indicates that other principles, such as the principle of common but differentiated responsibilities and the principle of intra-generational equity, indeed create obligations for states.[231]

2.3.3 PSNR in Africa and the Right to Development

In Africa, PSNR is manifest in the domestic laws of a number of states. For instance, the preamble and article 3 of Angola's Petroleum Activities Law;[232] section 2 of the South Africa's MPRDA;[233] section 44(3) of the Constitution of the Federal Republic of Nigeria, 1999 and section 1(1) of Nigeria's Minerals and Mining Act No 34 of 1999, section 1 of Nigeria's Petroleum Act 1969; and section 2 of the Nigerian Exclusive Economic Zones Act of 1978. Similar to the 1996 Constitution of South Africa, the 2010 Angolan Constitution does not make provision for PSNR. However, unlike the South African Constitution, article 16 of the Angolan Constitution does make provision for state ownership of petroleum resources.

Thomashausen argues that as PSNR is, in contemporary times, interpreted broadly 'transcending the territorial boundaries of individual states' rather than narrowly in the sense of 'absolute state sovereignty', 'PSNR is of particular relevance and a key enabler for the more successful instances of resource exploration anywhere [in the world]'.[234] He indicates that 'the original Algerian interpretation of the PSNR Declaration in favour of an absolute concept of sovereignty in respect of natural resources has today been abandoned in the state practice of all states in Africa'. Finally he argues that although the contemporary interpretation of PSNR, particularly in the South-South partnership including FACOC (Forum on China-Africa Cooperation) and BRICS (Brazil, Russia,

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[231] *Ibid*.

[232] Law No. 10/04 of 12 November 2004.

[233] See n 37 *supra*.

[234] See Thomashausen n 192 *supra*.

India, China, and South Africa), may appear as a denial of sovereignty of the African resource state and a fundamental contradiction of the principles of the PSNR declaration, it addresses a fundamental reality that has caused many Western sponsored projects and loans to Africa to fail.[235] According to him, current statehood in Africa is too weak to be able to successfully market and sell their natural resources by interacting with global corporations whose annual turnover exceeds by many times the annual budgets of African States, and often even the GDPs of entire States. Chronic lack in critical skills on a national level makes it difficult to diligently administer the proceeds of resource trading and apply them purposefully, without the resource contributing to what literature refers to as the "resource curse", meaning large uncontrolled cash flows that undermine every attempt at safeguarding state administration and good governance. Moreover, African States are normally not able to obtain large commercial loans at reasonable rates and costs.[236]

Bastos, however, indicates that 'it is clear that the model for the management and exploitation of natural resources which ultimately prevail in the states of Southern Africa is founded on a classical perspective of sovereignty, under which the national interest of the state (or the political elites from a different perspective) is the guiding criterion for political decisions'.[237] However, he indicates that

> [i]t should be noted that the positions which will be assumed by the states in respect of the management and exploitation of natural resources will always be attributable to the state as a subject of international law. It does not follow, however, that the evaluation of the "national interest" always corresponds to the interests of the community as a whole. Indeed, on the contrary, in many cases it was, and still is, possible to witness situations where the interests of the ruling political elite are transformed into the "national interests" of the state in question. Accordingly, the adoption of a classical view of sovereignty in relation to the principle of permanent sovereignty over natural resources will allow that the transposition of interests cannot effectively be challenged, neither internally nor internationally.[238]

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[235] *Ibid*.

[236] *Ibid*.

[237] See Bastos n 191 *supra* at 13.

[238] *Ibid*.

It is therefore clear from the above that there is a need to develop an African approach to the doctrine of PSNR as the international approach clearly does not suit the African context. It is interesting to note that the African Union (AU) does not make any provision for PSNR in either the constitutive document (the African Charter of Human and Peoples Right, the ACHPR) or any of its treaties or protocols.[239] It is argued that PSNR in the African context should be a right that accrues to indigenous communities in oil producing areas instead of being a right that accrues to the state. This is supported by the *Social and Economic Rights Action Centre for Economic and Social Rights v. Nigeria* (or the *Ogoni* case) in which the African Commission has confirmed that 'the African Charter in Articles 20 through 24 clearly provides for peoples to retain rights as peoples', that is, as collectives. The importance of community and collective identity in African culture is recognised throughout the African Charter'.[240] At paragraphs 56 to 58 of the *Ogony* case, the African Commission held that the right to natural resources contained within their traditional lands is also vested in the indigenous people, making it clear that a people inhabiting a specific region within a state could also claim under article 21 of the African Charter.[241] This was also confirmed in the *Endorois* case.[242] At paragraph 162 of the *Endorois* case, it was held as follows:

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[239] See in this regard http://www.au.int/en/treaties (accessed 27 April 2013). See in particular the African Convention on the Conservation of Nature and Natural Resources, which does not even include oil and gas in its definition. Article V(i) of this protocol provides that "natural resources" means renewable resources, tangible and non-tangible, including soil, water, flora and fauna and non-renewable resources. Whenever the text of the Convention refers to non-renewable resources, this will be specified.

[240] *The Social and Economic Rights Action Centre for Economic and Social Rights v. Nigeria*, African Commission on Human and Peoples' Rights, Comm. No. 155/96, (2001), para. 40

[241] Article 21 of the Charter states that 'all peoples shall freely dispose of their wealth and natural resources. This right shall be exercised in the exclusive interest of the people. In no case shall a people be deprived of it'.

[242] See *Centre for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of Endorois Welfare Council v Kenya* Comm. No. 276 (2003) at para 155, available at www.minorityrights.org/download.php?id=748 (accessed 01 April 2014).

> From all the evidence (both oral and written and video testimony) the African Commission agrees that the Endorois consider themselves to be a distinct people, submitted to the African Commission, the African Commission agrees that the Endorois are an indigenous community and that they fulfil the criterion of 'distinctiveness.' The African Commission agrees that the Endorois consider themselves to be a distinct people, sharing a common history, culture and religion. The African Commission is satisfied that the Endorois are a 'people', a status that entitles them to benefit from provisions of the African Charter that protect collective rights. The African Commission is of the view that the alleged violations of the African Charter are those that go to the heart of indigenous rights – the right to preserve one's identity through identification with ancestral lands.

This is also supported by indigenous peoples' right to internal self-determination.[243] The UNGAR 1314 (XIII), for instance, provides that 'the right of peoples and nations to self-determination as affirmed in the two draft Covenants completed by the Commission on Human Rights includes 'permanent sovereignty over their natural wealth and resources'. Daes presented a report *on Indigenous Peoples' Permanent Sovereignty Over Natural Resources* for the Commission on Human Rights in which, by analysing international, regional and domestic legislation, adjudication and practice, she came to the conclusion that indigenous peoples indeed had the right to PSNR.[244]

[243] According to Hofbauer a differentiation in the application between the right to external and internal self-determination must be made. 'While the former refers to the right of peoples to choose their own international status (independence, free association with another state, secession, union, or the choice of any other political state as freely accepted by the people), the latter is often understood as comprising the right to self-government, i.e. autonomy within a state' See Hofbauer n 182 *supra* at 54-55.

[244] See *Commission on Human Rights*: 'Prevention of Discrimination and Protection of Indigenous Peoples, Indigenous Peoples' Permanent Sovereignty over Natural Resources', Final report of the Special Rapporteur, Erica-Irene A. Daes, July 12, 2004, Annex II, p. 9, para. 1, UN Doc. E/CN.4/Sub.2/2004/30/Add.1.

As Hofbauer argues,

> once the political claim to self-determination has been recognized, the right-holders enjoy the other aspects of the right to self-determination, thus, firstly and foremost it necessarily entails the capability of the *right-holder to have its own natural resources under control*. Moreover, the right to economic self-determination also includes the regulation of fair and just economic trade relations and the common goal of economic prosperity and growth in the international agenda. With the core of the right laying in the *economic aspects of the principle of PSNR*, the reflection of its rationale can be found in instruments such as the Declaration on the Establishment of a New International Economic Order and in the Charter of Economic Rights and Duties of States.[245]

He concludes that-

> [t]herefore, one can argue that in effect, the rights of indigenous peoples to participate in, and be consulted with regard to decisions taken which affect their lands, territories and resources, and the obligation to secure their consent, helps create a *de facto* sovereignty over natural resources.[246]

Under the ACHPR, the right to self-determination is also closely linked to the right to development as recognised by article 22 of the ACHPR as binding on member states.[247] In terms of this article, 'all peoples shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind. States shall have the duty, individually or collectively, to ensure the exercise of the right to development'. Identifying the Endorois peoples as distinct indigenous peoples, protecting their rights, and recognising their right to self-determination, the African Commission in the *Endorois* case held that-

> [t]he alleged violation of the African Charter by the respondent state are those that go to the heart of indigenous rights – the right to preserve one's identity through identification

[245] See Hofbauer n 182 *supra* at 56-57.

[246] See Hofbauer n 182 *supra* at 68.

[247] See the *Katangese Peoples' Congress v Zaire* (2000) AHRLR 72 (ACHPR 1995). See also Kamga SAD 'The Right to Development in the African Human Rights System: the *Endorois* case' (2011) *De Jure* 381 at 387.

> with ancestral lands, cultural patterns, social institution and religious systems. The African Commission therefore accepts that self-identification for the Endorois as indigenous individuals and acceptance as such by the group is an essential component of their sense of identity.[248]

In recent years the availability of natural resources in a country is no longer solely considered a blessing and a precondition to development, but sometimes also a curse.

2.4 The 'Resource Curse' or 'Resource Impact'

Explaining the origins of the 'resources curse', Karl indicates that-

> [b]eginning with Adam Smith, observers have long warned of the perils mineral rents (to Smith, "the income of men who love to reap where they never sowed") [footnote omitted]. These rents, they [observers] argue, foster large-scale but often inefficient models of heavy industrialization, encourage consumption and generally lead to bias toward unproductive activities. The resulting inflation also makes planning difficult and exacerbates unbalanced growth.[249]

The 'resource curse', essentially refers to the 'negative growth and development outcomes' associated with minerals and petroleum-led development. In its narrowest sense, it is the inverse relationship between high levels of natural resource dependence and growth rates.[250] According to Viñuales the resource curse refers to a phenomenon

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[248] See n 229 *supra* at paras 156-157.

[249] See Karl TL 'The Perils of the Petro-State: Reflections on the Paradox of Plenty' 53(1) (1999) *Journal of International of Affairs* 31 at 43 to 44.

[250] See Karl TL 'Oil-led Development: Social, Political, and Economic Consequences' a working paper of the Center on Democracy, Development, and The Rule of Law (CDDRL) of the Freeman Institute for International Studies, available at http://cddrl.stanford.edu, pp 1, (accessed

where countries which are richly endowed with natural resources tend to do worse in terms of human and economic development than countries with fewer natural resources.[251] Schaber also notes that 'oil, as other natural resources might turn out to be more of a curse than a blessing. Many African countries are rich in resources. Yet the percentage of the people living in absolute poverty has increased, as has been the case in the oil rich Nigeria over the past decade.[252] Wenar also indicates that

> Less developed countries that gain a large portion of their national incomes from these extractive resources are subject to three overlapping "curses." They are more prone to authoritarian governments, they are at a higher risk for civil conflict, and they exhibit lower rates of growth. Several causal pathways explain these surprising correlations between natural resources and national misery.[253]

Al-Kasim and others indicate that the resource curse 'is a complex set of political, economic and social factors whereby countries richly endowed with natural resources experience low economic growth and significant welfare inequalities'.[254] Although there is fairly compelling evidence of the presence of 'resource curse' in resource rich countries,[255] some authors such as Stevens argue that the somewhat loaded and emotive 'resource curse' term should be dropped, and instead the term 'resource impact' be used,[256] as some countries managed to overcome the effects of the curse,

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21 March 2011). See also Thouvenot S 'Africa: Towards a New Generation of Mining Codes' *Legal Times* 04 April 2014.

[251] See n 40 *supra* at 198.

[252] See Schaber P 'Property Rights and the Resource Curse: A Legal Perspective' 17 (2011) *Global Governance* 185. See also Wennmann A 'Breaking the Conflict Trap? Addressing the Resource Curse in Peace Processes' 17 (2011) *Global Governance* 265.

[253] See Wenar L 'Property Rights and the Resource Curse' 36(1) (2008) *Philosophy & Public Affairs* 3.

[254] See Al-Kasim F, Soreid T & Williams A 'Grand Corruption in the Regulation of Oil' 2 (2008) *U4Issue* at 10, available at http://www.U4.no/document/publications.cfm (accessed 05/02/2011).

[255] See Stevens P 'Resource Impact: Curse or Blessing? A Literature Survey' 9(1) (2003) *The Journal of Energy Literature* 3 at 11.

[256] *Ibid*.

and instead received a 'blessing'.[257] The mere existence or rather abundance of a natural resource such as petroleum cannot by itself be either a blessing or a curse. It is submitted that the existence or abundance of a natural resource can either be cursed or blessed by the manner in which its exploitation is managed. The correct term should therefore be 'the resource management impact'.

Scholars often differs as to who should be blamed for the resource curse in a particular state. According to Wenar, as natural resource belong to the peoples and, as a result, cannot be sold authoritarian governments to foreign acquires without proper authorisation from the true owners (the people),[258] Should this happen, Wenar argues, both the authoritarian governments and the buyers including those who buys goods made of such 'stolen' resources are responsible for maintaining and perpetuating the resource curse.[259] Examining the resource curse from a moral philosophical perspective, Schaber objects to Wenar's argument on the grounds that it is not the lack of authorisation to sell the resources that is unethical, but rather it is the fact that authoritarian rulers (the elite) use the proceeds of such sale for their own private benefit.[260] He maintains that IOCs are morally or ethically wrong for violating the people's property rights and thus causing the resource curse only in the case of complicity and not in the normal purchase case.[261] Schaber suggests that the mandate of the ICC should be extended to prosecute 'massive' violations of property rights.[262] Following a strict legal positivistic approach, Viñuales argues that from a political and or an ethical standpoint, peoples are sovereign and will assume responsibility for their own development even when their house is not in order. In other words, it is the states, as owners of natural resources in international law, which must be blamed for the resource

[257] See Stevens n 257 *supra* at 9.

[258] See Wenar n 255 *supra*.

[259] *Ibid*.

[260] See Schaber n 262 *supra*.

[261] *Ibid*.

[262] *Ibid*.

curse which results from such states selling or transferring the state's natural resources.[263] The author does not believe this philosophical blame game is helpful in resolving the resource impact issue as none of the scholars makes any economically viable solutions to the problem. The issue is not about who is to blame. Rather the issue is how to manage the abundant natural resources in a way that their proceeds may yield positive impacts for the people. The management of resources is the responsibility of government but this can only be done optimally with the cooperation of all involved stakeholders such as the IOCs.

2.5 The Regulation of Oil and Gas Resources

The exploration for and production of oil and gas is important to both oil producing states or 'host governments' and IOCs. However, the importance of conducting exploration for and production of these resources for the host governments differ from and actually contradict those of the IOCs.

For host governments, the exploration and production of oil and gas is of particular importance for a number of economic and socio-political reasons. On the economic front, the objectives are the need to increase petroleum resources development; to retain most of the reserves; to increase access to modern technology; to create employment and improve local skills in the sector; and to generate and retain financial resources.[264] Politically and socially, host governments aspire to stimulate competition in the oil and gas sector; to establish long-term relationship with the global oil and gas market and entities; to respond to the interests of the local populations and indigenous peoples, and to promote sustainable development.

[263] See n 40 *supra*.

[264] See Hollis & Berresford in Wälde & Ngidi n 62 *supra* at 29.

On the other hand, the reasons for the importance of oil and gas exploration and production for IOCs are, to ensure maximum profit[265] at possible minimum risk; to ensure contract validity and enforcement, to ensure payment of reasonable taxation and royalties, to ensure reasonable limitation of liability in proportion to risk; to ensure minimal political risk and stabilisation of investment; and to ensure long-term and beneficial relationship with the host countries.

Due to the obvious tensions between the objectives of the host governments and those of the IOCs; the fact that the host governments generally own the oil and gas resources *in situ*; the fact that host governments generally lack the necessary skills, experience and financial muscles to explore for, develop and produce oil and gas;[266] the host countries regulate the oil and gas exploration and production activities by means of some licencing arrangement[267] in terms of different legislative frameworks. These legislative frameworks generally consist of a constitution and a special petroleum legislative framework, made of a petroleum law and ministerial regulations. The licencing arrangements are supplemented by host government contracts (HGCs).

As indicated earlier, some states' constitutions recognise PSNR including oil and gas.[268] Other states' constitutions go even further and address the issues of revenues from these resources.[269] The constitutional provisions usually regulates the structure under

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[265] See Gao Z 'International Petroleum Exploration and Exploitation Agreements: a Comprehensive Environmental Appraisal' in Wälde & Ngidi n 62 *supra* 317 at 326.

[266] See Dam n 45 *supra* at 3-4.

[267] *Ibid*.

[268] See for instance s 44(3) of the 1999 Constitution of the Federal Republic of Nigeria and Article 111 of the Constitution of Iraq.

[269] For instance, article 21 of the Constitution of Kuwait provides that natural resources a and all revenues therefrom are the property of state and it shall ensure their preservation and proper exploitation due regard being given to the requirements or State security and national economy. Article 27(6) of the Constitution of Mexico provides that the nation shall carry out the exploitation of petroleum and hydrocarbons in any of its physical forms …

which oil and gas activities take place in terms of the role of the federal, state and local government;[270] the involvement of the state oil company (SOC) or national oil company (NOC), private investment;[271] foreign investment[272] and types of HGCs.

In addition to constitutional provisions, a special petroleum law is in place to regulate all upstream petroleum activities. A petroleum law is a principal legislation that regulates all activities in the oil and gas exploration and production. Ideally, it should be broad, generic and enabling but brief and thorough. It should, ideally be sector-specific but relate to other more general legislations which impact on the petroleum sector such as foreign investment, taxation, and environment. A petroleum law addresses PSNR in most host countries with the exception of the USA, Canada, and quite interestingly, South Africa as shown in chapter 5 of this study. In simple terms, this means that a state owns natural resources, including oil and gas *in situ*, within its jurisdiction, that is, onshore, offshore, in territorial waters, and in the EEZs. A petroleum law often provides that any provision contrary to the doctrine of PSNR in any other law is null and void. A petroleum law is often supplemented by ministerial regulations.

2.6 Host Government Contracts

State participate in oil and gas exploration through various types of contracts, including concessions, PSCs or PSAs, service contracts and joint ventures (JVs).[273] In addition to these, there is a hybrid contract system which is basically a combination of the different contractual types. It is, however, my submission that the categorisation of the HGCs is, to a large extent, artificial and only for convenience. This categorisation of HGCs broadly depends on four issues, namely who owns the exclusive right to explore, who owns the oil and gas which results from successful operation, who is liable for the initial costs of

[270] See for instance, articles. 110, 111, 112 and 114 of the Constitution of Iraq.

[271] See for instance, article 23 of the Constitution of Iraq.

[272] See for instance, articles 25 and 26 of the Constitution of Iraq.

[273] See Bindemann K *Production-Sharing Agreements: An Economic Analysis* (Oxford Institute for Energy Studies 1999) 9.

exploration, and lastly government or state participation. It is probably essential to give a brief historical background about the development of the different HGCs before examining their generic features. Historically the first HGC was a concession.[274]

2.6.1 Concessions

The word 'concession' is, however, derived from the Latin word '*concessio*' which means to permit or allow. Although there is no universally accepted definition of the word 'concession' in its legal sense, there seems to be a common understanding of what it generally entails. For instance, Buell refers to a 'concession' as a privilege granted by a government to an individual or group, of developing certain resources.[275] This common understanding can also be detected from Toriguian who refers to a 'concession' as 'the grant of a privilege, usually exclusively but not necessarily so, to conduct an economic enterprise for a defined period and usually within a defined area.[276] As Gao indicates,

> [t]he word [concession] in its legal sense is used mostly with reference to the phenomenon of foreign participation, which concerns permits or licenses, especially exclusive ones, from an authority. The term concession may cover a variety of different concepts. It is used to refer to both privileges and rights conceded by government to carry out an activity and the act under which the right is conceded. In addition, it is also applied to the formal deed (whether it be a contract, a convention, or an agreement) which records the attribution of a right or privilege to the concessionaire. [277]

With specific reference to arrangements for oil and gas exploitation, Barrows refers to a concession as 'an arrangement whereby the oil company receives the right –in

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[274] See Barrows n 82 *supra* at 4.

[275] See Buell RL *International Relations* (New York: H Holt and Company 1929) 397-398 as quoted by Gao n 2 *supra* at 12.

[276] See Toriguian S *Legal Aspects of Oil and Gas Concessions in the Middle East* (Lebanon: Hamaskain Press 1972) 38, as quoted by Gao n 267 *supra*.

[277] See Gao n 267 *supra* at 9. See also Gao n 267 *supra* at 317.

exchange for its payment of all costs and specified taxes- to explore for petroleum, and if production has begun, to produce and marked the oil and gas'.[278]

Hollis and Berresford define a concession as an arrangement 'in which host governments grant to foreign corporations the right to explore, produce and market petroleum as they wish'.[279]

It is clear from these definitions that although there is no universally accepted definition of the word 'concession', no substantive difference can be detected as to what it entails. The difference is very minimal and literal at most.

To sum up, a concession is a permission granted by a host country to an investor (whether foreign or domestic) to explore for oil and gas in exchange for some form of payment, either in the form of oil, cash, or a combination of both. To provide an appropriate contextual understanding of the modern concession system, it is essential to briefly explore its historical development.

2.6.1.1 Traditional Concessions

It is generally accepted that the modern history of HGC in the petroleum sector began with the granting of concessions[280] to IOCs in the Middle East as early as 1901.[281] On 28 May 1901 a concession was granted by the Persian (the present day Iran) government to an Englishman, William Knox D'Arcy.[282] This concession was famously known as the D'Arcy concession.[283] In terms of this concession, D'Arcy was granted an

[278] See Barrows n 82 *supra* at 4.

[279] See Hollis & Beresford in Wälde & Ngidi n 62 n 62 *supra* at 29.

[280] See Toringuian n 278 s*upra* at 9. See also Barrows n 82 *supra* at 4.

[281] See Smith & Dzienkowski n 112 *supra* at 8; and Cattan H *The Evolution of Oil Concessions in the Middle East and North Africa* (Parker School of Foreign and Comparative Law 1967) 1.

[282] See Smith & Dzienkowski n 112 *supra* at 8.

[283] See Daintith & Willoughby n 50 *supra* at 12.

exclusive right to conduct all petroleum exploration and related activities throughout the whole of the Persian Empire for a period of six decades.[284] The Persian government was, in turn, entitled to an insignificant bonus of 16 per cent of the D'Arcy's annual profits.[285] This was quite an insult to the host government and this trend was followed unashamedly by oil companies.

After D'Arcy's eventual discovery of oil in 1908, a number of similar concessions followed. Of these concessions, the concession granted to the Iraq Petroleum Company (IPC) in 1925 is worthy of special mention 'because it served as a model for other concession agreements in the Middle East and elsewhere'.[286] This concession let to the granting of more concessions all over the world with the result that a handful of IOCs gained control over petroleum operations in all oil producing states.[287]

It should be noted, however, that none of the earliest concessions including the D'Arcy and IPC concessions included offshore exploration and production.[288] The earliest concession to include offshore exploration was the Arabian Oil Company (Aramco) concession from Saudi Arabia in 1933, followed by Kuwait Oil Company (KOC)

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[284] *Ibid*.

[285] *Ibid*.

[286] See Ely N (ed) 'Changing Concepts of the World's Mineral Development Law' in International Bar Association (IBA) World Energy Law (Proceeding of the IBA Seminar on World Energy Law held in Stavanger, Norway, 1975) 25, as quoted by Gao n 260 *supra* at 10. See also Cattan n 283 *supra*.

[287] These were exclusively British, American and Dutch-British Companies including the so-called 'seven sisters', namely Exxon ((or Esso, formerly Standard Oil Company of New Jersey); British Petroleum Company Ltd (BP), Gulf Oil Company, Mobil (formerly Socony-Vacuum Oil Company); Royal Dutch Petroleum Company, and Shell Transport and Trading (Shell); Standard Oil Company of California (Socal or Chevron) and Texaco. See Gao n 267 *supra* at 10; Linda & Mackay n 78 *supra* at 7; Smith & Dzienkowski n 112 *supra*.

[288] See Gao n 267 *supra* at 10.

concession from Kuwait in 1934.[289] However, even in these early offshore concessions, oil companies were not interested in offshore exploration. This was probably due to the underdevelopment of offshore technology and the availability of large tracks of land at that time.[290] It seems that there is little, if any, difference between the traditional onshore and offshore concession.[291]

A traditional concession was characterised by the following profit-driven characteristics:[292]

- a large concession area[293] not subject to any relinquishment;
- long duration with no revision possibility;
- exclusive rights of foreign companies to all facets of petroleum operations;
- property rights to foreign companies in the petroleum resources;
- exemption from all taxes and customs duties;
- modest royalty[294] paid on oil production volume; and
- transfer of property to governments upon expiry of concessions.

It is clear from these characteristics that there was a serious imbalance of bargaining power between the host governments and the IOCs in these concessions. This imbalance of bargaining power was very unfavourable towards host governments. As a result, the traditional concession approach acquired a bad reputation especially in the Middle East from the early 1950 and even to this day.[295] The original concession format was criticised on the basis that their provisions favoured the IOCs to the detriment of host governments; host governments were least involved in the management of

[289] See Cattan n 283 *supra* at 2. See also Smith *et al* n 82 *supra* at 297-298.

[290] *Ibid*.

[291] See Gao n 267 *supra* at 11.

[292] For these characteristics, see Cattan 283 *supra* at 4.

[293] See Hollis & Berresford in Wälde & Ngidi n 62 *supra* at 37.

[294] *Ibid*. See also Cattan n 283 *supra* at 32.

[295] See Bindemann n 2275 *supra*.

petroleum operations[296] and the concessions lacked the flexibility to accommodate rising or falling oil prices.[297]

Although the author agrees with Gao that despite the universal criticism of traditional concessions, the IOCs which operated under this regime contributed immensely to the development of the petroleum sector in developing countries, the author finds it difficult to accept this important fact as a justification for their one sided terms. The reality is that the IOCs, despite their significant contribution to petroleum development, have substantially degraded the environment, caused human misery, and enriched powerful minutely small capital investors without any meaningful contribution to the sustainable development of the developing world and its oil producing local communities. It is, further, submitted that the problem was not merely a conceptual issue, as most would like us to believe, but rather a problem of actual socio-political and socio-economic reality as the terms of these original concession agreements demonstrates.

The traditional concession system lasted worldwide for approximately five decades until the 1950's and was predominant in the Middle East, North Africa, the Far East and Latin America.[298]

As indicated above, the imbalance of bargaining power between the host governments and the IOCs in traditional concessions fuelled their growing rejection in developing countries.[299] As a result, gradual changes started to occur in the oil and gas arrangements between the host governments and the IOCs. These included demands

[296] See Barrows n 82 *supra* at 4.

[297] *Ibid*.

[298] *Ibid*.

[299] For example, see Asante SKB 'Restructuring Transnational Mineral Agreements' 73 (1979) *American Journal of International Law (AJIL)* 335-371.

from host governments for a greater share of oil revenues,[300] the introduction of a new method of royalty payment,[301] new payment of substantial bonuses, abolishment of tax exemption;[302] price control, relinquishment, work obligations and state participation in the control and management of petroleum operations.

Although traditional concessions dominated the first half of the twentieth century,[303] this was changed in the second half of the twentieth century. The changes included, among others, the nationalisations of natural resources, and in particular oil.[304] Thus the traditional concession system underwent drastic changes after the Second World War. In an effort to change from the passive role of receiving modest royalties to that of being active participants in all petroleum operations, host governments adopted either of two ways. In addition to the adoption of the concept of PSNR,[305] most countries took the extreme route of direct expropriation[306] and nationalisation of resources.

2.6.1.2 Modern Concessions

Modern concessions[307] are also referred to as a permit, lease or licence. [308]

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[300] For example in 1950, Saudi Arabia and Aramco concluded a new agreement to revise the financial arrangement existing between them and implemented a 50/50 profit-sharing scheme. See Gao n 267 *supra* at 15.

[301] For instance, in the revised Iraq and IPC concession of 1952, which reflected the principle of equal sharing, the government of Iraq was given an option of taking either 12.5 per cent of the net oil production, or its cash equivalent on posted prices. See Gao n 267 *supra* at 14.

[302] In 1971, the Organization of Petroleum Exporting Countries (OPEC), after some initial difficulties, succeeded on imposing a tax rate of 55 per cent on companies operating in its member states. This culminated in what has since become known as the 'OPEC formula' which is 85 per cent in income tax plus 20 per cent in royalty.

[303] See Vielieville & Vasani n 188 *supra*.

[304] *Ibid*.

[305] See the discussion under 2.3 above.

[306] For example, Mexico and Iran.

[307] It is the oldest petroleum arrangement used after the traditional concession.

In a modern concession, the host government acts through a competent authority. The competent authority may either be a ministry responsible for minerals and/or energy or an NOC. Through the competent authority, the state makes a basic grant of authority to the IOC to explore for, develop and produce oil and gas, subject to a number of terms and conditions. Typically the host government approves and then supervises the IOC's development plan, budget and work programme.[309] In essence this is an arrangement whereby the host government and the IOC undertake to explore, develop, and produce petroleum together, while the IOC assumes all the associated risks.[310] The parties agree that if petroleum is discovered, they will create a joint entity that will produce the petroleum. The recovered petroleum will then be distributed proportionally in accordance with each party's participation in the joint entity. At times the host government's profits will be in the form of cash while at other times it is in the form of produced petroleum. As demonstrated in chapter 4 of this study, a typical modern concession is the oil mining lease (OML) in Nigeria.

2.6.2 Production Sharing Contract (PSC)/ Production Sharing Agreement (PSA)

A PSC/PSA was first used in Indonesia in 1966.[311] It is currently used in a number of countries.[312] In order to exercise more control over an IOC, a host government delegates all exploration and production activities to a competent authority. The competent authority is usually an NOC. An NOC thus acquire an exclusive right[313] to explore for and produce oil. However, the NOC usually lacks the necessary technical

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[308] It is used in the UK, Norway, Thailand and Australia, amongst others. See Barrows n 82 *supra*.

[309] See Hollis & Berresford in Wälde & Ngidi n 62 *supra*, and Barrows n 82 *supra* at 9.

[310] See Hollis & Berresford in Wälde & Ngidi n 62 *supra*.

[311] See Hollis & Berresford in Wälde & Ngidi n 62 *supra* at 38; and Taverne n 82 *supra* at 21.

[312] Without limitation, these include Indonesia, Malaysia, Lybia, Egypt, China, Angola, and Nigeria.

[313] See Hollis & Berresford in Wälde & Ngidi n 62 *supra* at 38.

skills and capital to conduct the necessary exploration and production activities. A service provider, the IOC, is then secured to provide the necessary exploration and production activities on behalf of the NOC. This is done through a PSC/PSA. A PSC/PSA grants an oil company, usually an IOC or foreign oil company (FOC), the right to explore for and produce oil and gas within a specified area and for a limited time period.

A PSC is therefore a contractual arrangement in terms of which a contractor, at its sole risk, undertakes exploration and production activities, in exchange for reimbursement for its operating costs and the earning of profit in the form of a share of the oil and gas produced.[314] According to Barrows the basic elements of a PSC are cost recovery, a production split between the government and the oil company, and income tax.[315]

The costs of exploration and production are recovered from 'cost recovery oil' which is generally limited to a fixed percentage of production.[316] The production not used for cost recovery is called profit oil.[317] This is oil that is shared between the IOC and the competent authority on either a fixed ratio or variable share based on production volumes. A 'pure' PSC involves no income tax or royalties. However, in many cases, tax still applies while royalties sometimes apply.

Although PSCs are the most common type of petroleum contracts particularly in developing countries, there is no universal model of this contract.[318]

2.6.3 Service Contracts

[314] *Ibid*. See also Taverne n 82 *supra* at 20.

[315] See Barrows n 82 *supra* at 9.

[316] See Bindemann n 275 *supra* at 14.

[317] *Ibid*.

[318] See Taverne n 82 *supra* at 20.

In these arrangements, a host government retains the service of IOCs to perform petroleum exploration, development and production activities,[319] in return for a fixed or variable fee.[320] Generally under a service contract the IOC pays all exploration and development costs and recovers the expenditure through a discounted crude purchase price, cash payments, or production take. At all times, the host government retains ownership of petroleum, whether *in situ* or produced. The service provider or contractor does not acquire any ownership rights to petroleum, except where the contract stipulates the right of the contractor to be paid its fees in kind or grants a preferential right to the contractor.

A distinction is made between a risk service contract and a pure service contract.[321] Under a risk service contract, the service provider bears all the risk of exploration and production and when petroleum is produced, the service provider receives his compensation in cash.[322] In other words, the service provider is not reimbursed for the exploration risk but only compensated for production. A pure service contract, on the other hand, is a contractual arrangement in terms of which a service provider renders technical and financial services involving operating as well as further developing of existing fields.[323] In other words, the investment made will be compensated for and the service provider will, in addition, receive a reward which is related the additional

[319] See Hollis & Berresford in Wälde & Ngidi n 62 *supra* at 39.

[320] See Taverne n 82 *supra* at 20.

[321] See Likosky M 'Contracting and Regulatory Issues in the Oil and Gas and Metallic Minerals Industries' 18(1) (April 2009) *Transnational Corporations* 1 at 14'; and Machmud TN *The Indonesian Production Sharing Contract: An Investor's Perspective* (2000 Kluwer Law International) at 39.

[322] *Ibid*.

[323] *Ibid*. See also Taverne n 82 *supra* at 20.

production generated by a special development work done by him.[324] There is therefore no exploration risk.[325]

2.6.4 Joint Venture (JV)

A JV is not a separate type of petroleum arrangement.[326] It is an arrangement which ensures government participation in terms of which a competent authority in a host government receives an equity or ownership interest in the rights and obligations of a contract or a concession.[327] In terms of this arrangement, the host government and an IOC or FOC enter into a contractual partnership in terms of which each receives the production in proportion to its interest. Similarly, the risks are shared proportionally.

2.6.5 The 'Hybrid' Contract

This is not a specific type of HGC but basically a combination of the different petroleum contractual arrangements discussed above. As Park indicates, hybrid contracts involve hybrids of more than one of the above mentioned contract.[328]

2.7 Different Models for Regulating Oil and Gas

In response to the concession variants and types of agreements, governments may employ either of the two main licencing methods in allocating right to extract petroleum resources such as oil and gas, namely the discretionary or the competitive auction

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[324] See Taverne n 82 *supra* at 20.

[325] *Ibid*.

[326] See Barrows n 82 *supra* at 28.

[327] *Ibid*.

[328] See Park JJ 'Understanding the Emerging Petroleum Legal Regime in Iraq' available at http://iraqcomattache.org/i/files/docs/Understanding_the_Emerging_Petroleum_Legal_Regime_in_Iraq-_Jay_Park.pdf (accessed 27 April 2013).

methods.[329] The discretionary method is used mainly in Britain while the competitive auction system is used mainly in the USA.[330]

2.7.1 The Norwegian Model

In Norway, petroleum activities are regulated under formal laws (Acts and Regulations) and through individually negotiated special agreements.[331] In the territorial waters and on the continental shelf, petroleum operations are regulated by the Act No. 11 of 22 March 1985, and the Royal Decree of 14 June 1985, containing supplementary regulations.[332] The Act vests ownership of petroleum *in situ* in the subsoil of the sea area in the state. As a result of this state ownership, the Act authorises granting of licences by the state. A non-exclusive exploration licence is granted by the responsible Ministry and an exclusive production licence is granted by the Crown. The licencing model in Norway is called the 'carried-interest' system.

Under this licencing system, the government's potential interest is 'carried' during the exploration phase by the licensee.[333] When petroleum is discovered, the government has an option to participate.[334] If it exercises that option, it must then contribute at least part of the costs. The financial effect of the 'carried-interest' arrangement depends, aside from the percentage of participation, largely on specific provisions for the government's payment of its percentage costs. In particular, the important factors on the

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[329] See Fraser R 'Licencing Resource Tracts: a Comparison of Auction and Discretionary Systems' 17(4) (1991) *Resource Policy* 271-283; Kretzer UMH 'Allocating Oil Leases: Overcapitalisation in Licencing Systems based on the Size of Work Programme' (December 1993) *Resource Policy* 299- 311; and Kemp AG 'An Assessment of UK North Sea Oil and Gas Policies: Twenty Five Years on' (September 1990) *Energy Policy* 599-621.

[330] See Kretzer n 331 *supra*.

[331] See Taverne n 82 *supra* at 58.

[332] *Ibid*.

[333] See Dam n 45 *supra* at 57.

[334] *Ibid*.

cost side are whether the government pays its aliquot portion of both exploration and development costs, or only for the latter; the time of government payment relative to the time of expenditure by the licensee; and the interest rate which the government on any amount for which payment lags expenditure. It is important to note at this stage that this model has been adopted in Angola as demonstrated in the next chapter.

2.7.2 The British Model

The British regulatory regime is enforced primarily through a licensing system administered through a comprehensive legislative framework. The Petroleum (Production) Act 1934,[335] as amended by the 1998 Petroleum (Production) Act, is the primary legislation regulating the exploitation of petroleum resources in Britain.[336] In terms of this Act, ownership of oil and gas resources vests in the state.[337] The Act gives the government, the Secretary of State for Energy, rights to grant licences to explore and produce petroleum resources on land and in territorial waters. In terms of section 2(1) of this Act, 'the Secretary of State for Energy shall have power to grant to such persons as he thinks fit licences to search and bore for and get petroleum. Section 2(2) provides that a 'licence shall be granted for such consideration (whether by way of royalty or otherwise) as the Secretary of State for Energy with the consent of the

[335] This legislation is supplemented by several Regulations such as the Petroleum (Production) (Amendment) Regulations 1935 (S. R. and O 1935 No. 426); the Petroleum (Production) (Amendment) Regulations 1954 (S.I. 1954 No. 1378); the Petroleum (Production) (Amendment) Regulations 1957 (S.I. 1957 No. 1697); the Petroleum (Production) (Amendment) Regulations 1966 (S.I. 1966 No. 898); the Petroleum (Production) (Amendment) Regulations 1971 (S.I. 1971 No. 814); the Petroleum (Production) (Amendment) Regulations 1972 (S.I. No. 1522); the Petroleum (Production) (Amendment) Regulations 1978 (S.I. 1978 No. 929); the Petroleum (Production) (Amendment) Regulations 1980 (S.I. 1980 No. 721); the Petroleum (Production) (Amendment) Regulations 1982 (S.I. No. 1000); and the Petroleum (Production) (Landward Areas) Regulations 1984 (S.I. 1984 No.1832).

[336] See Salter n 93 *supra* at 27; and Daintith & Willoughby n 49 *supra* at 13-14.

[337] See Salter n 93 *supra* at 27.

Treasury may determine, and - upon such other terms and 'conditions as the Secretary of State for Energy think fit'.

It is clear from the phrases that the Secretary of State for Energy may grant licences 'to such persons as he thinks fit', 'for such consideration as he … may determine'.[338] 'upon such other terms and conditions as the Secretary of State for Trade and Industry thinks fit', that this licencing regime is widely discretionary in nature.[339] Licenses are allocated at the discretion of government. The discretion is exercised on the basis of a number of criteria. Initially these criteria were indicated informally by parliamentary statement or *Gazette* notice or both.[340] However, currently the criteria used to make this judgement are set out in Regulations. Although there is no single determinative criterion,[341] all applicants are judged against their compliance with the general objective of encouraging expeditious, thorough and efficient exploration to identify the oil and gas resources of the United Kingdom (UK). Whilst the criteria have changed over the years, certain elements have remained constant.[342] It is clear that the size of each company's proposed work programme is a very important factor.[343]

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[338] See s 2 of the (British) Petroleum (Production) Act 1934 as quoted by Daintith & Willoughby n 50 *supra* at 23.

[339] See Smith *et al* n 82 *supra* at 294, Kretzer n 331 *supra* at 299, and Omon A 'The UK Petroleum Production Licence – Is it a Contract or Regulation and Does it Matter?' available at http://www.dundee.ac.uk/cepmlp/car/assets/images/Omon.pdf (accessed 31 May 2010) p 7.

[340] An example of this discretionary system is informal awarding criteria for the awarding of the United Kingdom Petroleum Production Licences Sixth Round (London Gazette, August 20, 1976) which indicated that the Secretary of State will consider inter alia '… [w]hether a body incorporated in a country outside the United Kingdom applies for a licence or holds a controlling interest in the applicant, how far equitable treatment is afforded in such other country'. See in this regard Daintith n 82 *supra* at 16, footnote 12.

[341] See Daintith & Willoughby n 50 *supra* at 23.

[342] See Daintith & Willoughby n 50 *supra* at 23.

[343] See Fraser n 331 *supra*.

The criteria also include the technical, fiscal, and management capacity of the company concerned, the level of work offered,[344] previous license performance, contribution to the UK economy, and in the case of FOCs, equitable treatment of UK applicants by the governments.[345]

Also included in the criteria is the depth and stratigraphic horizon of exploratory wells,[346] the readiness of the applicant to offer full and fair opportunity to the UK industry to compete for orders of goods and services; the readiness to give facilities to trade unions; and the performance in training for offshore employment; the 'continuing need for expeditious, thorough and efficient exploration.[347] After submittal of a bid (embracing a statement of company capability as well as the amount of work offered) the bid itself will normally be evaluated by a tender committee formed from within the licencing authority.[348]

In addition to the Petroleum (Production) Act, the Continental Shelf Act of 1964 gives effect to the exploration and production rights and extends the licensing powers of the Petroleum (Production) Act 1934 to the British Continental Shelf (UKCS).[349] Like the Petroleum (Production) Act, a discretionary system is followed under the Continental Shelf Act. Licenses are similarly allocated on the basis of a number of criteria that are entirely at the discretion of the state. A good example of such criteria was given by F.J Erroll, the then British Minister of Power in the first round in 1964, as follows:

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[344] See Kretzer n 331 *supra* at 299.

[345]See Fraser n 331 *supra*. See also Bunter n 39 *supra* at 87.

[346] See Fraser n 294 *supra*.

[347] See Daintith & Willoughby n 50 *supra* at 23.

[348] *Ibid*.

[349] The Act makes provision as to the exploration and exploitation of the continental shelf; to enable effect to be given to certain provisions of the Convention on the High Seas done in Geneva on 29th April 1958. See the Preamble of this Act.

> first, the need to encourage the most rapid and thorough exploration of and economic exploitation of petroleum resources on the continental shelf. Second, the requirement that the applicant for a licence shall be incorporated in the United Kingdom and the profits of the operation shall be taxed here. Thirdly, in cases where the applicant is a foreign-owned concern, how far British oil companies receive equitable treatment in that country. Fourthly, we shall look at the programme of work of the applicant and also at the ability and resources to implement it. Fifthly, we shall look at the contribution the applicant has already made and is making towards the development of resources of our continental shelf and the development of our fuel economy generally.[350]

Effectively the discretionary system allows the IOC to make a cash bid which, instead of going straight to government as a lease bonus, which is typical of normal auction, is spent by the IOC itself on work within its contract area.[351] The greater the work proposed, the more likely it is that the acreage will be awarded.

As demonstrated in chapter 4 of this study, Nigeria has adopted this model through a 'flexible system' in terms of which legislation lays down general guidelines and conditions which must be satisfied by applicants seeking to acquire exploration rights, but also provides for certain important terms and conditions to be settled by negotiation.[352] This system therefore combines elements of both the general legislation system and the 'agreement system'.[353]

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[350] Also quoted by Dam n 45 *supra* at 25.

[351] *Ibid*.

[352] See Atsegbua n 42 *supra* at 12.

[353] In terms of the general legislative system, the legislation fixes, in advance, conditions under which rights to explore for and/or exploit oil resources may be granted under standard form license or lease. This is also known as the 'fixed content system'; see Atsegbua n 42 *supra* at 11. Under the 'agreement system', on the other hand, there is no general system of legislation, or the legislation is of a very general nature, and the government is left through its state-owned company, to grant right to explore for and /or to exploit oil resources on the basis of individually negotiated agreements; see Atsegbua n 42 *supra* at 12.

The main problem with the discretionary system is that it lacks transparency. No reasons are given for either granting or rejecting applications for licences.[354] In fact the criteria used have no legal force and as a result an applicant cannot complain in the courts if the minister departed from them.[355] The UK discretionary licensing system has also been criticised from an economic point of view.[356]

Although the Secretary of State for Trade and industry's discretion is wide, it is limited by the European Community law as far as applicants who are nationals of the member states of the European Community (EC).[357]

2.7.3 The USA/ World Bank Model

Although this model is beyond the scope of this study, it is important to sketch it briefly. In terms of the American/ World Bank model or auction system, licenses are awarded to the highest bidder.[358] For instance, in the USA federal offshore drilling programme, licenses are granted to the 'highest responsible qualified bidder'.[359] This system attempts to capture for the state the highest economic rent by pitting one bidder against

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[354] See Daintith & Willoughby n 82 *supra* at 24.

[355] *Ibid*.

[356] For instance, Kretzer n 331 *supra* at 310, argues that although the UK discretionary licensing system, as applied in the UK continental shelf, which emphasise the size of the work programme, can result in strategic overcapitalization, this could also be wasteful. He argues in trying to fulfil government criteria to be awarded licenses, it can reasonably be expected that these competitors will propose work programs which are above their optimal level of capital investment. Frazer, (n 331 *supra* at 271) on the other hand, argues that the auction system is a better system of licencing resources than the discretionary system because it provides host government with better information about the company's perception about the value of the resources and with a potential for higher revenue from its licencing.

[357] This is in terms of Art. 7 of the EEC Treaty, as referred to by Daintith & Willoughby n 50 *supra* at 24-25.

[358] See Fraser n 331 *supra*. Smith *et al* n 82 *supra* at 283.

[359] See Dam n 45 *supra* at 57.

another.[360] In a competitive situation, each bidder would gain by giving up some of the prospective economic rent to the licensing authority in return for the license.[361] In contrast to the discretionary system, under the auction system the cash bid is the only criterion for the award of the acreage.[362]

2.7.4 The South African Unique Model

Although the history of South Africa's oil industry goes back to 1884 when the first oil company was established in Cape Town[363] to import refined products, it was only the 1990s that an upstream oil industry came to exist in the country.[364] There are currently small producing oilfields off the South East coast of South Africa. A nearby gasfield provides the raw materials for a synfuels plant at Mossel Bay. Another gasfield has been discovered off the West coast of South Africa and exploration continues in a number of offshore areas.

Although South Africa is still relatively new as a competitive location for exploration and development oil and gas resources, it presents an interesting unique model licensing model.

As Modéer correctly indicates, 'the South African legal culture is mixed into three general parts: (1) Dutch-Roman law of the 17th and 18th centuries, (2) English common-

[360] See Dam n 45 *supra* at 5.

[361] *Ibid*.

[362] See Hollis & Berresford in Wälde & Ngidi n 62 *supra* at 35 and Hawley PH *et al* 'Competitive Bidding Tactics for New Exploration Concessions' in Wälde & Ngidi n 62 *supra* at 61.

[363] See Tait HL 'Strategic Recommendations to Improve Retail Operations in the Petroleum Industry Triggered by Deregulation' available at http://dspace.nmmu.ac.za:8080/jspui/bitstream/10948/1110/1/Thesis%20-%20B.pdf p 39 (accessed 27 June 2013)

[364] *Ibid*.

law and the 19th and 20th centuries, as well as (3) African native/traditional law.[365] It is therefore a mixed legal system[366] under the current constitutional dispensation. However, the common law legal culture still dominates the South African legal system.

In South Africa, oil and gas exploration and production (i.e. the upstream industry) is currently governed by the MPRDA.[367] Prior to the MPRDA's entry into force on May 1 2004, oil and gas exploration was governed by contracts between the South African government and private companies known as 'OP26 subleases' and oil and gas production by 'OP26 mining leases', regulated by the repealed Minerals Act of 1991.[368] This Act preserved certain provisions of the earlier Mining Rights Act, 1967, which it repealed.

The previous regime is referred to as the 'OP26' regime. This is derived from the number under which the foundational 1967 lease to prospect for petroleum (then defined as natural oil) in the Republic was registered in the Mining Titles Office. A significant feature of the OP26 regime was that, as is the case in many other countries, it guaranteed fiscal stability to oil and gas exploration companies, recognising the need for certainty in such a long-term, capital intensive and risky activity.

In terms of the current regime, the Minister may by notice in the *Gazette* invite applications for exploration and production rights in respect of any block or blocks. [369] In such a notice, the Minister may specify the period within which any application may be

[365] See Modéer n 90 *supra* at 11.

[366] See Modéer n 90 *supra* at 18.

[367] The Mineral and Petroleum Resources Development Act 28 of 2002.

[368] Act No. 50 of 1991.

[369] See s 73(1) of the MPRDA.

lodged with the designated agency[370] and the terms and conditions subject to which such rights may be granted.[371] The designated agency may otherwise directly receive applications for exploration and production rights in respect of such blocks, which are not subject to an invitation [372]

In terms of the current South African model under the MPRDA, the state is obliged to grant permits[373] and licenses[374] if certain predetermined legislative criteria are met. These criteria include, the financial resources and technical ability of the applicant;[375] the compatibility of the estimated expenditure with the intended operation and duration of the relevant programme;[376] approval of environmental management programmes;[377] whether the operation will not result in unacceptable pollution, ecological degradation or damage to the environment;[378] ability to comply with the Mine Health and Safety Act (no.

[370] In terms of s 71 of the MPRDA, the Petroleum Agency of South Africa (PASA) has been appointed as a designated agency to, among others, promote and regulate exploration and production of petroleum onshore and offshore; receive applications and evaluate and recommend awards of permits and rights; evaluate and recommend approval of applications to the Minister; and monitor compliance with licence conditions.

[371] See s 73(1) of the MPRDA.

[372] See s 73(2) of the MPRDA.

[373] These include, a reconnaissance permit, granted in terms of s 75 of the MPRDA, which is valid for 12 months and confers non-exclusive rights; and a technical cooperation permit, granted in terms of s 77 of the MPRDA, which confers exclusive desktop study right, and an exclusive right to apply for an exploration right, valid for 12 months.

[374] These include an exploration right, granted in terms of s 80 of the MPRDA, which is an exclusive and transferable right, valid for 3 years and renewable for maximum of 3 periods of two years each; and a production right, granted in terms of s 84 of the MPRDA, which is an exclusive and transferable right valid for 30 years, and renewable.

[375] See s 75(1)(a), s 77((1)(a), s 80(1)(a) and s 84(1)(a) of the MPRDA.

[376] See s 75(1)(b), s 77(1)(b), s 80(1(b), and s 84(1(b) of the MPRDA.

[377] See s 80(1)(c) of the MPRDA.

[378] See s 75(1)(c), and s 84(1)(c) of the MPRDA.

26 of 1996);[379] non contravention of the MPRDA;[380] whether granting the right will substantially and meaningfully expand opportunities for historically disadvantaged South Africans (HDSAs), including women and communities to enter and stay in the petroleum industry;[381] promotion of local employment and advancement of the social and economic welfare of South Africans;[382] optimal production of petroleum in accordance with the production programme;[383] and whether the applicant provides financially or otherwise for a social and labour plan.[384]

Although the MPRDA provides these criteria for awarding licences and permits, it is clear that unlike in an auction system, there is no single determinative criterion as in the form of a signature bonus. Furthermore, unlike in the British discretionary system, the granting of licences is not entirely within the discretion of the granting authority. Under the South African system, once an applicant meets all the requirements of the legislative framework in terms of both the form and the substance of the application, the licensing authority does not have any discretion but is obliged to grant the licenses. This is evident from the peremptory language used in the MPRDA. The MPRDA uses the word 'must'[385] and this word is, without doubt, peremptory. It does not provide opportunity for any discretion.

An interesting feature of the South African system, however, is the principle of 'first-come first-served'. In other words, the first application received will receive priority to any subsequent application, and if this application meets all the legislative requirements,

[379] See s 80(1)(d) and s 84(1)(d) of the MPRDA.

[380] See s 77(1)(c), s 80(1)(e), and s 84(1)(e) of the MPRDA.

[381] See s 80(1)(f) and s 84(1)(i) of the MPRDA.

[382] See s 84(1)(i) of the MPRDA.

[383] See s 84(1)(h) of the MPRDA.

[384] See s 84(1(g) of the MPRDA.

[385] See s 75(1), s 77(1), s 80(1), and s 84(1) of the MPRDA.

the Minister does not have any option but to grant the licence to the first applicant. This is clear from the provisions of the MPRDA. The MPRDA provides that the designated agency, the petroleum agency South Africa (PASA) must accept an application if 'no other person holds a technical co-operation permit, exploration right or production right for petroleum over any part of the area'[386]

It could be argued that it may be difficult to comply with all the legislative requirements. Some have actually suggested that this model is not investor friendly.[387] However, the author does not subscribe to such sentiments. In fact the author believes that this is the most transparent licencing system or model in the sense that if criteria are predetermined in a legislative frame and licensing is not absolutely left to the discretion of the licencing authority, the applicants are well informed in advance about what to expect and thus prepare accordingly.

2.8 Conclusion

In this chapter the general framework and theoretical foundation was laid for the subsequent chapters. Chapters 3, 4 and 5 are each dedicated to a different licencing model. Chapter 6 offers a comparative perspective between the three different licencing regimes or models. The current chapter therefore provides an outlined of the different regulatory models on upstream oil and gas resources . The chapter commenced with a discussion of ownership of oil and gas resources under the different systems of law, namely the common law, civil law, Islamic law and African customary law.

As indicated, the general rule under the common law, in terms of the *ad coelum* principle, property rights including ownership of petroleum resources, was deemed to extend to anything from under the ground of the land, as well as above its atmosphere. This meant that an owner of land also owned, inter alia petroleum *in situ* in his or her

[386] See s 74(2)(b), s 76(2)(b), s 79(2)(b), and s 83(1)(b) of the MPRDA.

[387] See Leon n 53 *supra*.

land. This general common law rule was later amended by statute in most common law jurisdictions, to the effect that ownership of petroleum resources vests in the state. This is currently the common practice in the world, with the exception of the USA and Canada both of which makes provision for both private ownership and state ownership of petroleum resources *in situ*.

The USA applies different theories of ownership ranging from absolute ownership, which is effectively similar to the *ad coelum* principle, qualified ownership theory based on the rule of captures in terms of which due to its fugacious nature, petroleum can only be owned once it is captured (like a wild animal), and the theory of non-ownership in terms of which due to its fugacious nature, petroleum cannot be privately owned. Unlike the USA, in Canada, there are no specific ownership theories. Instead of defining the legal character of ownership of petroleum *in situ,* Canadian courts chose to focus on what ownership interest is created under an oil and gas lease for land that is held in a fee simple estate. As indicate earlier, the oil and gas lease in Canada is a *profit à pendre*, which grants the holder a right to search for and win the oil and gas, without the holder owning the gas and oil *in situ* as the right is incorporeal in nature. A *profit à prendre* therefore only allows the holder to server the oil and gas from the land and reduce them to his or her possession.

Following the general common law rule under the *ad coelom* principle, the codified civil law also originally provided that ownership included property rights to the centre of the earth and to the sky. However, similar to most common law jurisdictions, the civil law codes were later amended to reserve surface rights to the state. It is important to note that South Africa and Nigeria generally follow the common law system of judicial precedents while Angola generally follows the civil law system of codified law. However, as South Africa also follows customary law, ownership under customary law was also discussed in this chapter. Under this system, the concept of individual ownership is unknown and emphasis is placed on communal, collective or inclusive ownership of natural resources by the community. Nigeria also, in addition to the common law, follows Islamic law. Under Islamic law, there are several schools of thought on ownership of oil

and gas including the *Maliki*, *Shafie*, *Hanafi* and *Hanbali* which deals differently with the issue of ownership of petroleum *in situ.*

The principle of PSNR which is closely related to ownership of natural resources was also discussed in this chapter. The evolution of this principle under international law; the paradigm shift from emphasis on rights to emphasis of duties, and in particular the duties relating to sustainable development and the environment, we dealt with briefly. As the study focuses primarily on African states, an African perspective on PSNR and the right to development were also discussed. This was followed by an exposition of the so-called 'resource curse' which haunts many African countries with abundant natural resources such oil and gas in Angola and Nigeria. The author suggests that resources cannot in themselves be a curse. Rather it is the miss-management of these resources that produces the negative socio-economic conditions in resource rich countries. The correct phrase should therefore be 'resource management impact' rather than 'resource curse' which has a potential to mislead.

The regulation of the exploitation of these resources in the upstream sector was then outlined in general terms. The different oil and gas licencing models including the British discretionary model, Norwegian 'carried interest model, the World Bank/ USA auction model and the Unique South African model were briefly outlined. Reference was also made to host government participation in the exploitation of petroleum resources under different petroleum contractual arrangements or HGC such as modern concessions, JVs, PSAs/PSCs and service contracts. This chapter basically lays a solid foundation for the subsequent chapter.

CHAPTER 3

OIL AND GAS LAW IN ANGOLA: THE NORWEGIAN 'CARRIED-INTEREST' MODEL

3.1. Introduction

The legal and regulatory framework for petroleum resources is a complex matrix involving a network of legislative frameworks, contractual arrangements, and fiscal systems. It determines the regime that is to be utilised in oil and gas producing states, in order to facilitate the optimal exploitation of these resources. As Hunter indicates, a

> petroleum regulatory framework refers to a suite of legislative and policy tools that a state utilises to regulate petroleum exploration and production. Specifically, the regulatory framework encompasses petroleum policy, petroleum legislation, the award of exploration and production licenses, the conditions for the award of petroleum licenses, and the government management of the extraction of petroleum.[388]

Hunter further explains that, '[t]he regulatory framework for petroleum exploitation encompasses legal instruments such as primary legislation, subordinate legislation, as well as administrative decisions by public officials utilizing policy guidelines'.[389]

As Dam illustrates, in his seminal work on the regulation of oil resources, oil and gas regulation is, indeed, about '*who gets what how?*'[390]

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[388] See Hunter T 'Comparative Law as an Instrument in Transnational Law: The Example of Petroleum Regulation' 21(3) (2009) *Bond Law Review* 42 at 45.

[389] See Hunter n 390 *supra* at 48.

[390] See generally, Dam n 45 *supra*.

It involves legislative frameworks, which are the primary instruments for regulating petroleum exploitation;[391] contractual arrangements for ensuring state participation in the commercial activities; and fiscal regimes for managing revenue. According to Hunter,

> [t]he legislative framework for petroleum activities in a state provides the basic context and rules governing petroleum activities in a state. It regulates the companies conducting the activities, whether they are foreign, international or domestic companies. It also defines the principal economic and fiscal guidelines for investment activity in the petroleum sector as a whole.[392]

The legislative frameworks usually include constitutional provisions, a petroleum law or legislation, and petroleum regulations.[393] It also covers the organisational structures for policy development, regulation of petroleum activities, and the undertaking of petroleum commercial activities.

Legislative frameworks define the responsibilities for different actors involved in the oil industry, including the private sector and the government. They also set specific requirements regarding exploration, field development activities,[394] technologies applied, the number of operators, and the role of NOCs. Onorato summarises the main purpose of a legislative framework as-

> to provide the basic context for and the rules governing petroleum operations in the host country; to regulate them, as they are carried out by both domestic, foreign and

[391] However, some countries, such as Russia, have no special petroleum legislation, but instead use only contractual regulatory regimes. See Moss GC 'Contract or Licence? Regulation of Petroleum Investment in Russia and Foreign Legal Advice' 16(2) (1998) *JENRL* 186.

[392] See Hunter n 390 *supra* at 59.

[393] See Tordo S 'Fiscal Systems for Hydrocarbons: Design Issues' (2007) *World Bank Working Paper* (No. 123) at 7; and Hunter T 'The Offshore Petroleum Regulatory Frameworks of Australia and Norway' 8(4) (2010) *Oil, Gas & Energy Law Intelligence* 1.

[394] See Hunter n 390 *supra* at 59.

international enterprises; and to define the principal administrative, economic and fiscal guidelines for investment activity in the sector.[395]

He suggests that the best practice in the regulation of upstream petroleum activities[396] should involve an integration of the legal, contractual, and fiscal arrangements into self-contained legislative frameworks which are coherent and consistent with both domestic and international law.[397] He argues that such integral legislative frameworks would give both the host government and the petroleum business clear legal and contractual bases on which to negotiate mutually advantageous arrangements for developing petroleum resources.[398]

In the majority of legislative frameworks worldwide, with few notable exceptions in the federal USA and Canada (as indicated in the previous chapter), the general practice is that of state ownership of, or state property in, petroleum resources.[399] Legislative frameworks are therefore, generally the means through which states assert and confirm ownership of all petroleum *in situ* within their jurisdictions, be it onshore, offshore, or in the EEZs.

The effectiveness and robustness of the regulatory framework determines how well the oil and gas industry functions. This applies equally to the efficiency and capacity of the regulatory institutions and the management of revenues. As Moss indicates, 'legal

[395] See Onorato WT 'Legislative Framework Used to Foster Petroleum Development' (1995) *World Bank Policy Research Working Paper* (No. 1420) at 3.

[396] Upstream petroleum activities are all petroleum activities that occur up to the point of transfer of the petroleum for the transport, sale and refining of the product. These activities include exploration and production activities. See Hunter n 390 *supra* at 45, footnote 20.

[397] See Onorato n 397 *supra* at 4.

[398] *Ibid.*

[399] See Onorato n 397 *supra* at 5-6.

regimes that work satisfactorily in one country might not be appropriate in a different context'.[400] Moss indicates quite correctly that, before a particular regime is adopted, cognisance should be taken of the legal tradition and the surrounding circumstances of the system where it is supposed to operate. Otherwise such adopted regime is doomed to failure.[401]

Variations do exist between different countries, both developed and developing, with regard to the regulatory regimes. As Kaiser puts it,

> [t]here are more…systems in the world than there are countries producing oil and gas because numerous vintages of contracts may be in force at any one time and contract terms often change as countries gain experience in licensing, global economic conditions shift, or as the perception of prospectivity in a region change.[402]

Hossain, however, indicates that the regulation of petroleum projects in different countries falls broadly under three systems, namely, a general legislation system, an individually negotiated agreement system, and a hybrid system.[403]

Under the general legislation or sector-specific legislation system, the relevant legislation fixes predetermined conditions under which the rights to explore for and exploit petroleum resources are granted by means of standard licences or leases, including royalty taxes and other payments to be made by licensees. Countries using

[400] See Moss n 356 *supra* at 187.

[401] *Ibid*.

[402] See Kaiser MJ 'Fiscal System Analysis - Concessionary Systems' (2007) 32 *Energy* 2135.

[403] See Hossain K *Law and Policy in Petroleum Development* (Nichols Publishing Company, New York 1979) 100-101.

this system include the USA, Canada, Australia, and most European Economic Community (EEC) countries.[404]

Under a negotiation-based system, on the other hand, there is no sector-specific legislation, or even if there is some legislation, it is of a very general nature providing merely a general framework.[405] Under this system, government grants the rights to explore for and exploit petroleum resources on the basis of individually negotiated agreements with petroleum businesses in the absence of comprehensive petroleum legislation. Although this system was initially used only in early concession countries like Iran, Iraq and Saudi Arabia, it has, relatively recently, been used by, for instance, Indonesia and Bangladesh.[406]

Lastly, under the hybrid system, a general legislation sets out certain provisions and minimum standards or conditions for the granting of rights to explore for and exploit petroleum resources. It also provides for certain important matters to be settled by negotiation between the government and individual businesses.[407] This is arguably the most successful system currently being practiced. Countries using this system include Britain, India, Malaysia, the Netherlands, New Zealand, Trinidad and Tobago, and most importantly for this study, Norway.[408]

Like Norway and other counties mentioned above, Angola also adopted a hybrid system to regulate upstream petroleum activities. Typical of the hybrid system, Angola has adopted a special legislation governing petroleum development activities, which

[404] See Hossain n 405 *supra* at 100.

[405] See Hossain n 405 *supra* at 101.

[406] *Ibid.*

[407] *Ibid.*

[408] *Ibid.*

contains provisions enabling its government to negotiate with petroleum businesses on essential contractual matters. The Angolan hybrid regulatory system is characterised by a carried-interest system,[409] which is an essentially Norwegian model of oil and gas regulation.[410]

In this chapter, a critical analysis of current primary oil and gas laws or the legal frameworks for regulating the upstream development, exploration, and production of oil and gas resources in Angola is conducted. These laws are discussed in terms of ownership of these resources, their acquisition, the legal nature of the rights, the state or government participation in their exploitation, assignment of rights, the transferability and revocation of rights, as well as recent legal reforms. The Norwegian model which prevails in Angola is investigated and critically discussed. The key features of this model are discussed. Its weaknesses, challenges and strengths are highlighted. This model is critically evaluated to determine its effectiveness in protecting these petroleum resources from control by IOCs (international oil companies) and the concomitant depletion, exploitation, abuse and monopolisation of these resources. However, before the Angolan system is considered, it is befitting to provide a proper contextual background of the Norwegian petroleum regulatory system.

3.2. The Norwegian Petroleum Regulatory System

A discussion of Norway's petroleum legal framework or regime must first consider its petroleum resources endowment.

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[409] See Khelil C 'Fiscal Systems for Oil: The Government "Take" and Competition for Exploration Investment' *The World Bank Publication Policy for the Private Sector* Note No.46 (May 1995) 1.

[410] *Ibid*. See also Dam n 45 *supra* at 57; Hossain n 405 *supra* at 102; and Yalapan M 'Legal Nature of the Papua New Guinea Petroleum Arrangement' (2003) *MLJ* (*Melanesian Law Journal*) 6; [2003-04] 29 *MLJ* 117 (1 January 2003) 7.

Norway has a small land area of 323 782 km2, which is less than three times the size of Angola. Similarly, it has a small population of 4.7 million,[411] which is also less than 4 times the population size of Angola, which has a population of 16 million people.

Like in Angola, the Norwegian petroleum resources are mainly located offshore. In Norway, these resources are concentrated in the continental shelf, which extends to approximately 2.2 million km2.[412] Norway first discovered petroleum resources in the continental shelf in 1969.[413] The Norwegian continental shelf constitutes 30 per cent of Europe's total continental shelf.[414] Half of the Norwegian continental shelf is set to contain some sedimentary rock, where petroleum may be discovered, and half of this area has been opened for petroleum activity.[415]

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[411] See Harbo F 'The European Gas and Oil Market: The Role of Norway' *The European Gas and Oil Market*, available at http://www.ifri.org/files/Energie/Harbo.pdf, (accessed 15 February 2011). See also, a presentation by Alstad JA, the Deputy Director General of the Norwegian Ministry of Petroleum and Energy, entitled 'Norway Resource Management and Nation Building', at the *Canon Institute for Global Studies* in Tokyo on 22 September 2010, available at http://www.canon-igs.org/event/report/report_100922/pdf/12_alstad_presentation.pdf, (accessed 15 February 2011).

[412] See Harbo n 413 *supra* at 4.

[413] See Harbo n 413 *supra* at 9; and Hunter n 351 *supra* at 47.

[414] See Harbo n 413 *supra* at 4.

[415] See Thurber M, Hults D, & Heller PRP 'The Limits of Institutional Design in Oil Sector Governance: Exporting the "Norwegian Model"', a paper delivered at the ISA (International Studies Association) Annual Convention 2010, on 18 February 2010, at New Orleans, LA, available at http://iis-db.stanford.edu/pubs/22836/Thurber_Hults_and_Heller_ISA2010_paper_14Feb10.pdf (accessed 05 February 2011).

Norway, therefore, has undoubtedly vast amounts of petroleum reserves.[416] In terms of petroleum exports, production, and contribution to the economy, Harbo summarises the Norwegian position as follows:

> Norway is Western Europe's second most important source of natural gas after Russia and the world's third largest exporter of oil and gas after Saudi Arabia and Russia. The oil and gas sectors constitute around 25% of Norway's GDP and 52% of Norwegian exports (35 times higher than the export value of fish). Norway has an annual oil production of nearly 3 million barrels per day (bpd) and an annual gas production of 85 billion cubic metres.[417]

3.2.1. The Norwegian General Petroleum Legal Framework

As indicated earlier, Norway has adopted a hybrid system for the regulation of petroleum resources. In fact, the hybrid system is also often referred to as the Norwegian concession system.[418] As Moss puts it,

> [i]n Norway, petroleum operations are based on the so-called 'concession' system which, as opposed to the 'contractual' system, assumes that the operating oil companies obtain a licence or a concession by the state under certain terms and conditions, most of which are fixed by legislation and some of which are negotiated case-by-case between the state and the relevant oil companies.[419]

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[416] According to the Norwegian Petroleum Directorate (NDP), 'the petroleum activities have been crucial for Norway's financial growth and in financing the Norwegian welfare state. Over more than 40 years, petroleum production on the shelf has added more than NOK 9000 billion to the country's GDP. In 2010, the petroleum sector represented 21 per cent of the country's total value creation. Value creation in the petroleum industry is more than double that of the land based industry, and about 15 times the total value creation in the primary industries'. See http://www.npd.no/en/Publications/Facts/Facts-2012/Chapter-3/ (accessed 10 April 2013).

[417] See Harbo n 413 *supra* at 7.

[418] See Moss n 393 *supra* at 187. See also Hossain n 405 *supra* at 101.

[419] See Moss n 393 *supra*; and Hunter n 390 *supra* at 18. Moss correctly criticises this for one of its main features, namely the state's liberty to modify terms and conditions (most often the rate

In accordance with this system, the regulatory regime for petroleum activities is facilitated by means of both formal laws, that is parliamentary Acts and executive Regulations, and through individually negotiated special agreements.[420] In the territorial waters and on the continental shelf, petroleum operations are regulated by the Petroleum Activities Act[421] and the associated Petroleum Activities Regulations of 1997.[422]

In accordance with the doctrine of PSNR,[423] the Petroleum Activities Act vests ownership of petroleum resources *in situ*, in the subsoil of the sea area in the state.[424]

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of taxation) fixed by legislation at any time, because this makes the system more risky from an investment point of view when compared to the contractual system.

[420] See Taverne n 82*supra* at 58.

[421] See the Norwegian Petroleum Activities Act 29 November 1996 No. 72 relating to petroleum activities. Last amended by Act 14 December 2001 No 98, 28 June 2002 No 61, 20 December 2002 No 88, 27 June 2003 No 68, 7 January 2005 No 2, 30 June 2006 No 60 and 26 January 2007 No. 3 (hereinafter 'the Norwegian Petroleum Activities Act') available at http://www.ptil.no/getfile.php/Regelverket/Petroleumsloven_e.pdf (accessed 11 April 2013).

[422] See Regulations to the Norwegian Petroleum Activities Act relating to petroleum activities. Laid down by Royal Decree 27 June 1997 pursuant to Act 29 November 1996 No. 72 relating to petroleum activities, section 10-18 and Act 10 February 1967 relating to procedure in cases concerning the public administration, section 13 third paragraph and section 19 third paragraph. Last amended by Royal Decree 2 July 2012 No 729 (hereinafter 'the Norwegian Petroleum Activities Regulations 1997)'; available at http://www.npd.no/en/Regulations/Regulations/Petroleum-activities/ (accessed 10 April 2013). See also Hunter n 390 *supra* at 59.

[423] The doctrine of PSNR is accorded to states under, among others, the United Nations General Assembly Resolution 1803 (XVII) of 1962 *Permanent Sovereignty Over Natural Resources* (1962) and United Nations General Assembly Resolution 3281 (XXIX) *Charter of Economic Rights and Duties of States*. The doctrine of state permanent sovereignty over natural resources has been discussed in the chapter 2 of this study. See also Hunter n 390 *supra* at 48.

As a result of this universal concept of state ownership, this Act authorises the granting of licenses by the state. Section 1-3 Chapter 1 of the Norwegian Petroleum Activities Act unequivocally provides that, '[n]one other than the state may conduct petroleum activities [in Norway] without the licences, approvals and consents required pursuant to this Act'.

To this effect, section 2-1 Chapter 2 of the Norwegian Petroleum Activities Act, provides that a legal person or a natural person, domiciled within an EEA (European Economic Area), may submit an application for exploration licences to the Norwegian Petroleum Directorate (NPD). Such an application must contain certain prescribed information.[425] Upon payment of an annual fee,[426] the Ministry of Petroleum and Energy must then grant a non-exclusive exploration license to explore for petroleum. The exploration license authorises geological, petrophysical, geophysical, geochemical and geotechnical activities.[427] Shallow drilling may be carried out to a depth stipulated by the NPD.[428] These licenses are generally valid for a renewable duration of 3 calendar years, unless another period of time is stipulated in a specific license.[429]

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[424] See s 1-1 Chapter 1 of the Norwegian Petroleum Activities.

[425] This includes:

(a) name, address and nationality of the applicant. If the application comprises more than one applicant, all the names, addresses and nationalities shall be stated,

(b) who in Norway will be the representative in relation to the authorities,

(c) the area which is comprised by the application,

(d) the purpose and the nature of the exploration. See s 3 of the Norwegian Petroleum Activities Regulations, 1997.

[426] The annual exploration license fee is currently set at 65,000 NOK (Norwegian Kroner, that is, the Norwegian currency) per calendar year payable in advance to the State via the NPD. See s 5 of the Norwegian Petroleum Activities Regulations 1997.

[427] See section 4 of the Norwegian Petroleum Activities Regulations, 1997.

[428] *Ibid*.

[429] See s 2-1 Chapter 2 of the Norwegian Petroleum Activities Act.

Like the rest of the Norwegian petroleum legislative framework, the exploration license also confers a discretionary right upon the state to issue regulations relating to the contents of a license application, the scope of such licences, further conditions of the license, and fees to be paid for the license.[430]

The granting of an exploration license does not automatically confer on the licensee, the right to a production license for the exploration area.[431] An application for a production license, containing the prescribed basic information,[432] must be submitted to the Ministry

[430] *Ibid*. See also Chapter 3 of the Norwegian Petroleum Activities Regulations 1997, laid down by Royal Decree 27 June 1997 pursuant to Norwegian Petroleum Activities Act No.72 of 29 November 1996, last amended by Royal Decree 12 December 2003 no 1504, available at http://www.nhm.uio.no/forskning-samlinger/studier/geologi/svalex/ressurs_CD/Misc/Petroleum_activities_regulations_English.pdf (accessed 26 February 2011).

[431] See s 2-1 of the Norwegian Petroleum Activities Act.

[432] Such information includes:

(a) name, address and nationality of the applicant, and indication whether the applicant is a physical

person or a body corporate,

(b) indication of who in orway will be the representative in relation to the authorities,

(c) indication of the area or areas to which an application for a production licence applies,

(d) indication of the priorities of the applicant in respect of the areas, in case the application applies to more than one area,

(e) information concerning the activities of the licensee, including financial capacity,

(f) a geological evaluation of the area or areas to which an application for a production licence applies, and how effective petroleum activities are planned for this area,

of Petroleum and Energy. A copy of this application must be submitted to the NPD. An application for a production license is, however, made upon the release of acreage in a licensing round.[433] The licensing round must be advertised in the Norwegian Gazette (*Norsk Lysingsblad*) and the *Official Journal of the European Communities*,[434] in order to comply with the EU Directive requirements.[435] Production license may be granted to a body corporate established in conformity with Norwegian legislation and registered in the Norwegian Register of Business Enterprises, insofar as other requirements are not applicable pursuant to international agreements. Production licence may also be granted to a physical person domiciled in a state of the EEA.[436] On the basis of relevant, objective, non-discriminatory, and announced criteria, an exclusive[437] 10 year production license is granted,[438] for exploration, exploration drilling, and production of petroleum

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(g) a financial evaluation of the area or areas to which an application for a production licence applies,

h) information concerning experience and technical competence of significance to the area or areas

to which an application for a production licence applies,

(i) description of the organisation and expertise which the applicant will have available in Norway and elsewhere for activities in connection with the area or areas to which an application for a production licence applies, and

(j) attestation that the handling fee has been paid. See section 8 of the Norwegian Petroleum Regulations.

[433] See s 3-5 Chapter 3 of the Norwegian Petroleum Activities Law, 1996.

[434] *Ibid*. See also Taverne B *An Introduction to the Regulation of the Petroleum Industry: An introduction to Regulation, Economics and Government Policies* (Kluwer Law International 1999) at 218.

[435] See EU Directive 94/22/EC re hydrocarbons.

[436] See section 3-3 Chapter 3 of the Norwegian Petroleum Activities Act.

[437] *Ibid*.

[438] See s 3-9 Chapter 3 of the Norwegian Petroleum Activities Act.

deposits in areas covered by the license.[439] The licensee becomes the owner of the petroleum which is produced.[440] This license is granted on the basis of the following discretionary criteria:

(a) the technical competence and financial capacity of the applicant, and

(b) the applicant's plan for exploration and production in the area for which a production license is sought.[441]

According to section 11 of the Norwegian Petroleum Activities Regulations, 1997, conditions and requirements for granting a production license and for conducting petroleum activities pursuant to a production license shall be based solely on the need to ensure that the petroleum activities within the area comprised by the production license are carried out in a proper manner. Conditions for conducting activities pursuant to a production license shall be based on consideration for national security, public order, public health, transport safety, environment protection, protection of biological resources and national treasures of artistic, historic or archaeological value, the safety of the facilities and the employees, systematic resource management (e g production rate or the optimisation of the production activities) or the need to ensure fiscal revenues.[442]

If the applicant is or has been a licensee according to an exploration licence, the Ministry of Petroleum and Energy may also take into consideration any form of inadequate efficiency or inadequate responsibility that may have been demonstrated by the applicant as a licensee.[443] The criteria for granting a licence shall, in accordance with section 3-5 Chapter 3 of the Act, be formulated and applied in a non-discriminatory manner among applicants.[444] If two or more applications are regarded to be equal on the

[439] See section 3-3 Chapter 3 of the Norwegian Petroleum Activities Act.

[440] *Ibid*.

[441] See s 10 of the Norwegian Petroleum Activities Regulations, 1997.

[442] See section 11 of the Norwegian Petroleum Activities Regulation.

[443] See s 10 of the Norwegian Petroleum Activities Regulations, 1997.

[444] *Ibid.*

basis of the criteria above, other relevant objective and non-discriminatory criteria that will make possible a final choice between the applications, may be used as bases for granting the licence.[445] Norway, therefore, follows a discretionary licensing system for petroleum activities.[446]

As far as contractual arrangements are concerned, section 4-7 Chapter 4 of the Norwegian Petroleum Act makes the award of production licenses conditional upon the parties concluding a joint operating agreement (JOA). Production licenses may be accompanied by model agreements, called JOAs, which have to be executed by the licensee within a certain period after the license has been granted.[447]

The JOAs are therefore mandatory contracts between the state and the participants.[448] Without them, there cannot be any petroleum exploitation in Norway.[449] These agreements form the core regulatory documents for petroleum production under the licenses.[450] They regulate the structure and arrangements of the petroleum activities including the parties, the state appointed operator, voting rules and allocations, and how to change the operator, should the need arise.[451] The fiscal arrangements between the parties are also covered in these arrangements.[452]

3.2.2. The Norwegian 'Carried-Interest' Model

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[445] *Ibid.*

[446] See Løvås K & Osmundsen P 'Petroleum Taxation: Experience and Issues', available at http://www1.uis.no/ansatt/odegaard/uis_wps_econ_fin/uis_wps_2009_8_lovas_osmundsen.pdf, accessed 15 March 2011).

[447] See Tavern n 436 *supra* at 220.

[448] See Hunter n 390 *supra* at 65.

[449] *Ibid.*

[450] *Ibid.*

[451] *Ibid.*

[452] *Ibid.*

The Norwegian regulatory or legal framework is often referred to as a carried-interest model.[453] The Norwegian model in the context of this study, therefore, refers to the 'carried-interest' model of oil and gas regulation in general. It does not therefore merely refer to the 'Norwegian model' in the narrow context of separation of functions between policy development, industry regulation, and commercial operations.[454] In the context of this study, the Norwegian model relates to the nature of state participation in the oil and gas sector, the method of acquiring licenses or concessions, the types of contractual arrangements involved, and the ownership of petroleum resources, in general. The Norwegian separation of functions model is therefore considered in this broad context.

[453] See n 413 *supra*. See also Lied F 'In the Beginning' in Hanslien S (ed) *Petroleum Exploration and Exploitation in Norway* (Elsevier Science 1995) at 2; McDougall IA *Marketing Canada's Energy: A Strategy for Security in Oil and Gas: a Strategy for Security in Oil and Gas* (Canadian Institute for Economic Policy 1983) 116; Boscheck R *et al Strategies, Markets and Governance: Exploring Commercial and Regulatory Agendas* (Cambridge University Press 2008) 242; Nolan PA & Thurber MC 'Risk and the State' s Choice of Oil Company in Victor DG *et al* (eds) *Oil and Governance: State-Owned Enterprises and the World Energy Supply* (Cambridge University Press) 152; Van Meurs P 'Financial and Fiscal Arrangement for Petroleum Development- an Economic Analysis' in Beredjick N *et al* (eds) *Petroleum Investment Policies in Developing Countries* (Kluwer Law International 1988) 55, and the Norwegian 'Annual Tax Newslettert 2014 at p 11, available at www.bahr.no/no/.../annual-tax-newsletter-2014/_.../3676?(accessed 24 March 2014).

[454] The so-called 'separation of functions models' originates from in Norway and hence the phrase 'Norwegian model'. In terms of this model, the policy, regulatory, and commercial functions in the petroleum sector are formally separated. In Norway petroleum resources are administered by three distinct government bodies, namely a national oil company (Statoil), which is engaged in commercial hydrocarbon operations; a government ministry, the Ministry of Petroleum and Energy, which is responsible mainly for policy development; and a regulatory body, the Norwegian Petroleum Directorate (NPD), which provides oversight and technical expertise. See, in this regard, Thurber *et al* n 417 *supra*.

The 'carried-interest formula' was introduced into the North Sea by the Dutch, by means of a Decree of 27 January 1967.[455] As Nolan and Thurber indicate,

> [i]n Norway's second licence round in 1969, state participation was mandated, in a number of cases in the form of "carried interest" in exploration blocks. Carried interest means that the state held an option to participate in the development and production activities in the event of a discovery that was determined to be commercially viable.... this kind of provision meant that the state took none of the risk of failure from exploration and appraisal wells and only participated in the development where remaining risks were effectively underwritten by the willingness of the operating company to invest private capital in the project.[456]

Hossain also explains the 'carried-interest' system as a system whereby 'any joint venture, …provides that the company will finance the exploration and bear the risk, so that in the event of no discovery being made, the loss will be borne exclusively by it, but at the same time provides that the government can acquire an equity interest if a commercial discovery is made, the company is said to 'carry' the government's 'interest' during the exploration phase'.[457] According to Gray, 'carried interest' allows a government/NOC to have a working interest in a JV or company producing oil from a block without a cash investment or at a rate lower than its working interest share.[458] According to Yalapan, the 'carried arrangement' is the arrangement under which-

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[455] See Hossain n 390 *supra* at 102. It is very important to note that Norway essentially follows a civil law system rather than a common law system in terms of which case law is a primary source of law. See in this regard, Moss GC (2007) 'International Contracts between Common Law and Civil Law: Is Non-state Law to Be Preferred? the Difficulty of Interpreting Legal Standards Such as Good Faith' 7(1) (2007) *Global Jurist* 3. See also Moss n 393 *supra* at 138. See also notes 91, 140, 141, 142 & 143 *supra*.

[456] See Nolan & Thurber n 455 *supra* at 152.

[457] See Hossain n 390 *supra* at 134.

[458] See Gary I 'Oil and Gas Revenues, Funds and State Budgets: Minimising Leakages and Maximising Transparency and Accountability in the Hydrocarbon Value Chain', *UNDP*

> the companies pay for the state's participation in the exploration and production of natural resources and the state reimburse the company either in kind or through barrels of oil produced from the acreage or by using the proceeds of the state's share of oil that is produced from the acreage to reimburse the oil company.[459]

Under this licensing system, the government's potential interest is, therefore, 'carried' during the exploration phase by the licensee.[460] When petroleum is discovered, the government has an option to participate.[461] If it exercises that option, it must then contribute at least part of the costs. The financial effect of the 'carried-interest' arrangement depends, aside from the percentage of participation, largely on specific provisions for the government's payment of its percentage costs. In particular, the important factors on the cost side are whether the government pays its portion of both exploration and development costs, or only for the latter; the time of government payment relative to the time of expenditure by the licensee; and the interest rate which the government on any amount for which payment lags expenditure.[462]

The 'carried-interest' system was introduced in Norway as a provision for government participation in the licences granted in 1969,[463] when the first petroleum discovery was made. These licences provided for negotiation of detailed participation agreements in terms of which government had an option to participate. The right to exercise such an option became effective on the day on which a written notice was served declaring a discovery to be commercial.[464] The government had one year within which to exercise its option and, in the meantime, it was not entitled to participate in the management of

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Discussion Paper No. 6, available at http://www.un.org.kh/undp/images/stories/special-pages/extractive-industries/docs/revenue_transparency_eng.pdf (accessed 20 March 2011).

[459] See Yalapan n 412 *supra* at 8, footnote 19.

[460] See Dam n 45 *supra* at 57.

[461] *Ibid.*

[462] *Ibid*.

[463] See Hossain n 390 *supra* at 134; and Nolan and Thurber n 455 *supra*.

[464] *Ibid.*

petroleum operations.[465] It could only exercise regulatory powers.[466] However, once the government has exercised its option to participate, it was then entitled to participate in the management and also incurred liability to pay its participants' share of exploration costs, usually financed out of the government's share of production.[467] In respect of development and production costs, the government was also expected to make its proportionate contribution.[468]

The 'carried-interest' system evolved through and was reinforced by the Norwegian policy review of 1971 with a substantial discovery of the Ekofisk field.[469] In 1972 Statoil (*Den Norske Stats Oljeselkap*),[470] an NOC, was created as a vehicle for state participation. State participation on a 'carried-interest' basis was introduced in Norway at the second licensing round in 1960-1970 and has since become a defining feature of Norwegian oil and gas licensing model.[471] McPherson indicates that in its early days, Statoil, the Norwegian NOC, was granted preferential status in the oil and gas sector in the sense that its initial 50 per cent interest increased to a 51 per cent majority on commercial discovery and was 'carried through the exploration phase by private partners'.[472]

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[465] *Ibid.*

[466] *Ibid.*

[467] See Hossain n 390 *supra* at 135.

[468] *Ibid.*

[469] *Ibid.*

[470] See Taverne n 436 *supra* at 219.

[471] See Noreng *Ø Oil Industry and Government Strategy in the North Sea* (London: Croom Helm, 1980) 165.

[472] See McPherson C 'State Participation in the Natural Resource Sectors: Evolution, Issues and Outlook' a paper prepared for the IMF (International Monetary Fund) conference on *Taking Natural Resources: New Challenges, New Perspectives,* September 25-27, 2008, at 18.

With recent licences, a new participation formula has been devised whereby Statoil is assured a 50 per cent interest from the outset.[473] Statoil retains an option to acquire a further percentage; to be exercised after a production profile has been prepared after a commercial discovery, so that it is entitled to acquire (on a sliding scale) up to 75 per cent interest. Statoil is not required to reimburse its FOC partners for the cost of exploration.[474]

The robustness and practical success of the Norwegian approach is underlined by the fact that no major disputes or incidents of litigation and therefor no case law have yet resulted from its application. Cappelen and Mjøset give, as reasons for the success of Norway's model in oil and gas the following:

> Norway's policy of integrating natural resource-based industries with the rest of the economy through various linkages. Second, institutions were developed to handle shocks to the economy that are endemic to resource productions such as large changes in terms of trade. Also the separation of rents based on natural resource extraction from spending these rents, has gradually led to the establishment of a buffer fund that helps to create a more stable economic environment. Finally, the real returns from a large financial fund (currently roughly equal to GDP) help to finance public expenditures with less deadweight loss than before.[475]

3.2.3. Relations between Angola and Norway in the Oil Sector

According to Cappellen and Mjøset, Norway has become increasingly different from the other Nordic countries (Denmark, Finland, Iceland and Sweden) as it is the only Nordic country with a recent history of renewed resource wealth.[476] As indicated earlier, these

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[473] *Ibid*.

[474] *Ibid*.

[475] See Cappelen A & Mjøset L *Can Norway Be a Role Model for Natural Resource Abundant Countries?* (2009) UNU-WIDER available at http://www.wider.unu.edu/publications/working-papers/research-papers/2009/en_GB/rp2009-23/_files/81295409539514387/default/RP2009-23.pdf.

[476] See n 477 *supra* at 1.

authors argue that Norway has managed to avoid the resource curse for several reasons:

> [f]irst, Norway had a history of natural resource management that included integrating natural resource-based industries with the rest of the economy through various linkages. Second, institutions were developed to handle shocks to the economy that are endemic to resource productions such as large changes in terms of trade. Also the separation of rents based on natural resource extraction from spending these rents, has gradually led to the establishment of a buffer fund that helps to create a more stable economic environment. Finally, the real returns from a large financial fund (currently roughly equal to GDP) help to finance public expenditures with less deadweight loss than before. This potential efficiency effect of resource abundance has not received much attention in the literature.[477]

Norway currently offers petroleum management sector assistance in more than 20 countries, including Angola, in a large variety of fields.[478] However, the extent to which Norwegian assistance can make a difference depends on a range of historical, geographical, and political factors. Norway's most important contribution is capacity building which enables the countries themselves to manage natural resources.[479] Helping other countries increase their revenues and manage them in a better way is an important part of Norway's international development efforts.

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[477] *Ibid*.

[478] Other countries include East Timor, Mozambique, Bangladesh, Vietnam, Afghanistan, Uganda, Bolivia, Ghana, Madagascar, Sudan, South Sudan, Nigeria, Iraq, Lebanon, Ivory Coast, Kenya, Ecuador, Cuba, Indonesia, Mauritania, Sao Tome & Principe, Nicaragua, Palestinian Territory, Tanzania, Zambia, and Cambodia, among others. See generally *Norad (Norwegian Agency for Development Corporation)* 'Oil for Development' available atwww.norad.no/en/thematic-areas/energy/oil-for-development (accessed 20 March 2013); and the *Norad Evaluation Report 1/2007* 'Evaluation of the Norwegian Petroleum-Related Assistance: Case Studies Regarding Mozambique, Bangladesh, East Timor, and Angola' available at www.norad.no/en/tools-and-publications/publications/publication?key (accessed 20 March 2011).

[479] See the *Norad* 'Oil for Development' n 4813 *supra* at p 11

With particular reference to Angola, the Norwegian assistance in the oil sector began in 1987 and continues today under the OfD[480] (Oil for Development Initiative) brand. The OfD focuses on three thematic areas for development cooperation to oil-rich developing countries, namely, resource management, revenue management, and environmental management.[481] In addition to these, OfD has three cross-cutting dimensions, namely, good governance, transparency, and accountability.[482] From a resource management perspective, the OfD works to achieve, amongst others, legal frameworks to govern petroleum exploration and production; open bid and tendering processes; and transparency about licenses and contracts.

It was as a result of this Norwegian assistance that a new Petroleum Law was drafted and promulgated in Angola, and a standard PSA model, was revised to focus on environment, petroleum operations, and local content, among others.[483]

3.3. Angola: the Petro-State

[480] The aim of the OfD has been explained as 'enabling petroleum producing countries to utilise revenues from their oil and gas resources to reduce poverty and improve the living conditions of their populations. Petroleum revenues must be used to build schools and clinics, to provide medicines and development for the many, and not be allowed to disappear in the pockets of the few. A strong civil society is vital in oil-producing countries to increase the level of transparency of the petroleum sector. It is also exceedingly important that the production of petroleum resources is done in an environmentally sustainable manner.' See *Norad Evaluation Report* 1/2007 n 44 *supra*.

[481] See Govender S & Skagestad BM 'Civil Society and the Oil for Development in Angola: Mechanisms for Enhancing Strategic Cooperation among Non-State Actors', a 2008 report by the Institute for Democracy in South Africa (IDASA) for the Norwegian Embassy in Luanda, available at http://www.idasa.org.za/gbOutputFiles.asp?WriteContent=Y&RID=2450, (accessed 04 February 2011) at 25.

[482] *Ibid*.

[483] See *Norad Evaluation Report* n 480 *supra* at 13.

Angola is undoubtedly a petro-state,[484] or what Gulbrandsen and Moe call, a '"new" petroleum province'.[485] As Karl indicates, 'petro-states … rely on an unsustainable development trajectory fuelled by an exhaustible resource – and the very rents produced by this resource form implacable barrier to change'.[486] Angola is a classic example of a petro-state. It is located strategically for petroleum production; has vast reserves; abundant production of petroleum resources; and good future prospects for oil and gas production. However, it regrettably faces tremendous challenges as to the management of revenues flowing from these resources.

3.3.1. Angola's Strategic Geographical Location

Situated on the west coast of Africa, south of the equator, Angola is in a strategic geographic location for petroleum exploration and production.[487] This country 'lies on the southern curve of the Gulf of Guinea, anchoring an oil-rich geologic shelf running across the Atlantic [Ocean]...'.[488] According to Kaiser and Pulsipher,

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[484] A petro-state is described as 'a mining country with weak institutions and a malfunctioning public sector. Its most important feature are laws that grant subsoil rights to the government, from which spring the extraordinary size and duration of the "petro-rent" which is much, much greater than the profits which can be made in the private sector'. See Martinez I 'The Curse of the Petro-State: The Example of Venezuela', available at http://www.econlib.org/library/Columns/y2005/Martinezpetro.html#, (accessed 15 March 2010).

[485] See Gulbrandsen LH & Moe A 'Oil Company CSR Collaboration in "New" Petro-States' 20 (Winter 2005) *JCC* 53 at 54.

[486] See Karl n 252 *supra* at 31.

[487] See Gary I & Karl TL 'Bottom of the Barrel: Africa's Oil Boom and the Poor' A report of the *Catholic Relief Services*, June 2003, at 31, available at http://crs.org/publications/showpdf.cfm?pdf_id=183 (accessed 15 February 2011).

[488] See *Source Watch* at http://www.sourcewatch.org/index.php?title=Angola's_oil_industry (accessed 15 February 2011).

> [w]hen the continents were spreading millions of years ago, a large volcanic ridge extended across the South Atlantic which closed off and restricted the northern oceanic waters, which eventually evaporated into salt basins along the north of the ridge. The result is that the West Africa region [West Africa extends along the Nigeria-Angola axis and includes Nigeria, Cameroon, Equatorial Guinea, São Tomé É Principe', Gabon, and Angola] has extremely rich source rocks in salt basins characterized by faulting – adding up to large structures with good migration paths. South of Angola (and the ridge), the geology changes dramatically and so do the prospects.[489]

This west coast African country has the third largest land area in Africa,[490] extending over 1,246 700 Km2.[491] It is three times the size of Norway. Angola is divided into 18 provinces,[492] with Luanda as both a province and the country's capital city.[493] In terms of demographics, the country has approximately 16 million people.[494] It is, approximately 4

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[489] See Kaiser MJ & Pulsipher AG *Fiscal System Analysis: Concessionary and Contractual Systems Used in Offshore Petroleum Arrangements* (Coastal Marine Institute 2004) 45, available at http://www.gomr.boemre.gov/PI/PDFImages/ESPIS/2/2977.pdf (accessed 12 February 2011).

[490] The largest is the Democratic Republic of Congo, followed by Sudan before it was split into two countries, namely Sudan and South Sudan. See *The World Bank Country Study: Angola: an Introductory Economic Review* (The International Bank for Reconstruction and Development, Washington DC 1991) 1.

[491] See generally McCormick H *The Angolan Economy: Prospects for Growth in a Post-war Environment* (Center for Strategic & International Studies, Washington DC 1994) 38. See also Crowther G *et al Africa: A Lonely Planet on a Shoestring* (Lonely Planet 1995) 77.

[492] Arranged alphabetically, the names of the provinces are as follows: Bengo, Benguela, Bié, Cabinda, Cuando Cubango, Cuanda Norte, Cuanda Sul, Cunene, Huambo, Huíla, Luanda, Lunda Norte, Lunda Sul, Malanje, Moxico, Namibe, Uíge, and Zaire.

[493] See article 20 of the Angolan Constitution of 2010.

[494] See Magrin G & Van Vliet G 'The Use of Oil Revenues in Africa: An Unfinished Business' available at http://www.ifri.org/files/Energie/MAGRIN.pdf (accessed 15/02/2011); *The Economist*, November 26, 1977 'The Dutch Disease,' at 124; and Shaxson N 'Angola's

times the population size of Norway. Although there are several indigenous languages,[495] the country's only official language is the colonial Portuguese.[496] As Crowther and others indicate, 'you must speak some Portuguese to survive in Angola'.[497] Angola shares its borders with Congo-Brazzaville at the northern province of Cabinda, the Democratic Republic of Congo (former Zaïre) to the northeast, Zambia to the east, and Namibia to the south. Norway's non-aligned status in global politics, its commitment in the 1970s to the North-South dialogue, and to non-interference in internal politics of its development aid cooperation partners, enabled Norway to gain decisive influence in the Angolan decision making process on its oil and gas legal framework, at a time when Angola was still closely aligned with the former Soviet Union and Cuba, and in a state of war with apartheid South Africa.

3.3.2. Angolan Oil and Gas Exploration History

Angola is one of the historic oil states in Africa.[498] The first oil surveys in Angola can be traced back to 1906, and the first Angolan oil exploration concession was granted in 1910 in the Kwanza and Congo basins.[499] However, at that stage, no commercial

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Homegrown Answers to the "Resource Curse"', p 56, available at http://www.ifri.org/files/Energie/SHAXSON.pdf (accessed 03 March 2011).

[495] These include Umbundu, Kimbundu, and Kikongo. See generally Birgham D 'Themes and Resources of Angolan History' *African Affairs* available at http://www.afraf.oxfordjournals.org, (accessed on 20 October 2010).

[496] See article 19 of the Angolan Constitution of 2010. See Crowther *et al* n 454 *supra* at 80.

[497] See Crowther *et al* n 456 *supra* at 80.

[498] See Magrin & Van Vliet n 496 *supra* at 82-83.

[499] See Hodges T *Angola to the 1990's: The Potential for Recovery*, a special report (Report No.1079 of 1987) for the Economist Intelligence Unit (EIU) of the *Economist News Paper* (1987) 52. See also McCormick n 493 *supra* at 38.

discoveries were made. In fact, in the mid-1930s, one author wrote that 'Angola possesses, so far as we know, little mineral wealth.[500]

A second, more rewarding concession was granted in 1952 to the Cabinda Gulf Oil Company (*Comphania de Combustiveis do Lobido* or CABGOC*)*, a subsidiary of Belgium's Petrofina.[501] In 1955 a first oil well was discovered under this concession in the onshore Kwanza basin.[502] Oil production began in the subsequent year.[503]

CABGOC began exploring in the Cabinda area in 1954,[504] and made a discovery of important oil reserves in the coastal enclave of Cabinda in 1966, three years prior to the first petroleum discovery in Norway in 1969. Production began in 1968 and this production was destined for export.

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[500] See Woolbert RG 'The Future of Portugal's Colonies' (1937) 15(2) *Foreign Affairs* 374 at 378, available at http://www.jstor.org/stable/pdfplus/20028774.pdf?acceptTC=true (accessed 30 March 2011).

[501] See Hodges n 501 *supra*. See also Alexander K & Gilbert S 'Oil and Governance Report: A Case Study of Chad, Angola, Gabon, and São Tomé É Principe', at 11, available at http://www.ethicsworld.org/publicsectorgovernance/PDF%20links/Oil%20and%20Governance%20Report%20March%202008.pdf (accessed 28 February 2011) at 19.

[502] See Hodges n 501 *supra*; Hodges T *Angola: Anatomy of an Oil State* 2nd ed (African Issues 2004) at 143; Hodges T 'The Economic Foundations of the Patrimonial State' in Chabal P & Vidal N (eds) *Angola: The Weight of History* (Hurst, London 2007) at 175. See also the *Global Witness* (21st January 199), p, 6 'A Crude Awakening, the Role of the Oil and Banking Industries in Angola's Civil War and Plunder of State Assets', available at http://www.globaleitness.org/media_library_detail.php/93/en/a_crude_awakening, (accessed 06 February 2011) at 5; and Kaiser & Pulsipher n 4914 *supra*.

[503] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra*.

[504] *Ibid*.

Production increased rapidly rising by 233 percent between 1969 and 1973,[505] 'while exports almost quadrupled in volume'.[506] From then on, oil started playing one of the most important roles in the Angolan economy, having overtaken any other commodity, including coffee in export, as of 1973.[507]

However, as Angola acceded to independence on 11 November 1975,[508] ravaged by civil war, oil production all but collapsed. Oil production temporarily ceased in Cabinda as CABGOC, the then largest producer, ceased operations amid civil war and disputes on sovereignty.[509] This was also the case in some onshore fields in the Kwanza and Congo basins.

However, the oil production decline was short-lived. As the main Western countries, such as the USA, recognised the MPLA (*Movimento Popular de Libertação de Angola* or the Popular Movement for the Liberation of Angola) regime, CABGOC returned and started operations again the following year. By 1977 oil production, bounced back strongly, with an average of 171,200 bpd, which was almost equivalent to the pre-independence peak reached in 1974.[510]

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[505] From 49,000 bpd in 1969 to 163 bpd in 1973. See McCormick n 493 *supra* at 38.

[506] See Hodges n 501 *supra* at 53.

[507] Second to oil, diamonds are Angola's main export product. Major diamond reserves are located in northeastern Angola, a region endowed with the finest and top quality stones. In fact, 70 per cent of diamonds discovered are of great quality, listing the country among the main diamond producers.

[508] See Taverne BG *Petroleum Industry and Governments: A study of the Involvement of Industry in Production and Use of Petroleum* 2nd ed (Kluwer Law International 2008) 269; and Taverne n 436 *supra* at 267. Angola, Mozambique, Guinea Bissau, São Tomé & Príncipe, and Cape Verde were Portugal's five African colonies officially incorporated into the Portuguese state in 1951. See McCormick n 493 *supra* at 68.

[509] See Hodges n 501 *supra* at 53, and McCormick n 493 *supra* at 38.

[510] See Hodges n 501 *supra* at 53.

The significant growth of oil production in Angola was advantaged by its offshore location, which enabled the oil industry to remain largely beyond the reach of the ongoing internal conflict,[511] during the civil war.[512] Nevertheless the 1977 oil production levels could not be sustained and declined steadily over the next five years to 1982.

3.3.3. Angola's Current Petroleum Resources Wealth

Favoured by a strategic geographical coastal location, Angola is richly endowed with natural resources.[513] Hodges indicates that 'if human progress depended on natural

[511] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 6.

[512]Angola was first involved in a 14-year anti-colonial struggle, which started in 1961, against its former coloniser, Portugal, which ended with accession to independence on 11 November 1975. This was followed by more than 18 years of civil war between António Agostinho Neto's MPLA government (with external support mainly from Cuba and the Soviet Union), and Jonas Savimbi's *União Nacional par a Independencia Total de Angola* (UNITA) guerilla movement (with external support by the then South African apartheid regime and the USA). The Angolan war is well documented. See for instance McCormick n 93 *supra*; Brittain V *Death of Dignity: Angola's Civil War* (Pluto Press, London 1998); Ciment J *Angola and Mozambique: Post-Colonial Wars in Southern Africa* (Facts on File Inc. 1997); Guimarães FA *The Origins of the Angolan Civil War: Foreign Intervention and Domestic Political Conflict* (Macmillan Press, London 1998 & St Martin Press, New York 1998); James III WM *A Political History of the Civil War in Angola 1974 -1990* (Transaction Publishers New Brunswick and London 1992); Sparks D *Angola and the Politics of Intervention* (McFarland, London 1993); Hodges *Angola: Anatomy of an Oil State* n 501 *supra*; Chabal & Vidal n 504 *supra*; and Bender GJ *Angola under the Portuguese: The Myth and the Reality* (University of California Press, California and Los Angeles 1978).

[513] These include petroleum (oil and gas), diamonds (including alluvial or surface and kimberlite or underground deposits), iron ore, phosphates, bauxite, uranium, gold, granite, copper, and feldspar. See Hodges *Angola: Anatomy of an Oil State* n 462 *supra* at 1; Ciment n 479 *supra* at 7; Chabal P '*E Pluribus Unum*: Transitions in Angola' in Chabal & Vidal n 467 *supra* at 1; Brittain n 477 *supra* at 2; and Govender & Skagestad n 446 *supra*.

resources alone, Angola's people would be among the most fortunate in Africa. The country has an unusually rich and diverse endowment of natural resources'.[514]

The vastest natural resources are Angola's reserves of oil and gas.[515] Like Norway, Angola's petroleum resources are mostly located offshore. The main petroleum basins are located in the Northern offshore near the coast of the Cabinda and Zaïre provinces.[516] Angola is not only the main oil producer in the SADC region,[517] but it is also one of the top ranking oil producers on the African continent attaining, since 2005, nearly the same production levels as Nigeria.[518] It is also not only an important member of APPA,[519] but has, since 2007, become a member of OPEC.[520] In terms of both

[514] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 101.

[515] See Govender & Skagestad n 483 *supra* at 12.

[516] See *World Bank A World Bank Country Study: Angola: an Introductory Economic Review* (The International Bank for Reconstruction and Development, Washington DC 1991) at 3.

[517] The SADC (Southern African Development Community) region includes Angola, South Africa, Botswana, DR Congo, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Swaziland, Tanzania, Zambia, Lesotho, Zimbabwe, and Seychelles. See the *World Bank* n 518 *supra*. See also www.sadc.int (accessed 06 February 2011).

[518] See McCormick n 493 *supra* at 38; and Hodges n 501 *supra* at 52.

[519] APPA (African Petroleum Producers Association) is an intergovernmental organisation created in 1987 in Lagos, Nigeria, to serve as a platform for African petroleum producing countries to cooperate, collaborate, and share knowledge and competences. It aims to promote common policy initiatives and projects in all facets of the petroleum industry with a view to maximising the developmental and welfare benefits accruable from petroleum exploitation activities in the member countries in particular and in Africa in general. It includes countries such as Algeria, Angola, Benin, Cameroon, Congo, DRC, Ivory Coast, Egypt, Equatorial Guinea; Gabon, Libya, Mauritania, Nigeria, South Africa, Sudan, and Chad. See the APPA website at http://www.appa.int/en/pmbres/pang.html (accessed 12 February 2011).

[520] Founded in Baghdad, Iraq, in September 1960 by five countries namely Iran, Iraq, Kuwait, Saudi Arabia and Venezuela, OPEC (Organisation of the Petroleum Exporting Countries) is a permanent intergovernmental organisation of 12 oil-exporting developing nations (Algeria,

reserves and production, it has for a long time occupied a second position in the continent, after Nigeria and it still maintains this position to this day. In fact, it is predicted that, with recent discoveries, Angola could soon become the largest producer of oil and gas in Africa.[521] The Nigerian production levels have been declining as a result of increasingly frequent attacks on oil installations in the Niger-Delta and general instability in the Nigerian oil industry.[522]

Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela), that coordinates and unifies the petroleum policies of its member countries. See OPEC website at http://www.opec.org/opec_web/en/about_us/25.htm (accessed 12 February 2011). A distinction must also be made between OPEC and OAPEC (the Organisation of Arab Petroleum Exporting Countries) which was founded in Beirut in January 1968 by Kuwait, Libya and Saudi Arabia with the aim of protecting their interests and coordinating their oil trade, thus fostering economic integration among Arab countries. Accounting for around one quarter of total world oil production as of March 2012, OAPEC had ten members, namely Algeria, Bahrain, Egypt, Iraq, Kuwait, Libya, Qatar, Syria and United Arab Emirates. See *OpenOil* 'Syria Oil Almanac' at p 5, available at http://openoil.net and http://www.oapecorg.org/ (accessed 06 May 2013).

[521] See the *Global Witness* n 504 *supra* at 6. See also *Economist Economic Unit's Country Report: Angola* (October 2008), available at http://edu.care.org/Documents/Country%20Profile_Angola-EIU.pdf (accessed 05 January 2011); and Shaxon N 'Angola's Homegrown Answers to the "Resource Curse' in Lesourne J & Ramsay WC (eds) *Governance of Oil in Africa: Unfinished Business* (IFRI, PARIS, 2009), available at http://www.ifri.org/files/Energie/SHAXSON.pdf or http://www.ifri.org/?page=contribution-detail&id=169&id_provenance=88&provenance_context_id=1 (accessed 20 February 2011) at 62. Shaxon argues that although Angola was widely reported to have become Africa's largest oil exporter, overtaking Nigeria, in April 2008, this might have been a 'temporary blip' because Nigeria's oil and gas potential is much larger, with proven and probable reserves at over 35 billion barrels, which is three times the size of Angola's13.5 billion barrels.

[522] See the *Economist Intelligence Unit* (May 2008) 'Country Report: Angola', available at http://edu.care.org/Documents/Country%20Profile_Angola-EIU.pdf (accessed 16 March 2011).

Angola also boasts large reserves of combined and non-combined natural gas.[523] It is estimated that until 1999 the discovered reserves totalled approximately 1.6 Tpc (tera of thousand billion cubic feet) gas. This number is set to grow even further when the new and more recent discoveries are made.[524] Angola is, therefore, indeed a petro-state.[525]

3.3.4. Future Prospects and Advantages

The Angolan oil industry is expanding at an unprecedented pace. In 2008 it was reported to have reached its OPEC[526] cap of 2 million barrels per day (bpd). Although production was reduced in January 2009,[527] due to declining oil prices, Angola recovered rapidly throughout 2009, producing, on average of 1.8 million bpd. In the same year, crude oil was reported to have accounted for approximately 85 per cent of GDP, 95 per cent of exports, and approximately 85 per cent of government revenues.[528]

Coakley notes that, 'offshore petroleum development and exports will dominate the economy of Angola for years to come and will provide a major impetus to rebuilding the war-torn economy and infrastructure'.[529] The *Economist Intelligence Unit* also predicts

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[523] See a *KPMG Final Report for the Angolan Ministry of Finance* (March 2004) entitled 'An Evaluation of the Angolan Petroleum Sector', at 12, available at http://www.minfin.gv.ao/fsys/kpmg_en.pdf (accessed 21 March 2011).

[524] *Ibid.*

[525] See Karl n 251 *supra* at 32.

[526] As indicated in n 487 *supra*, OPEC is an acronym for 'Organization of Petroleum Exporting Countries'. Angola joined OPEC in January 2007. See Shaxon n 523 *supra* at 61.

[527] From 2 million bpd in 2008 to 1.51 million bpd in January 2009.

[528] See Shaxon n 523 *supra* at 65.

[529] See Coakley JG 'The Mineral Industry of Angola—2000' available at http://minerals.usgs.gov/minerals/pubs/country/2000/aomyb00.pdf (accessed 15 February 2011) at 3.3.

that oil production will rise against a background of high oil prices and this will results in a strong GDP growth which will continue over a forecast period, averaging 9.8 per cent in 2009, and 8.9 per cent in 2010.[530]

The oil sector, 'largely located in the coastal Cabinda enclave in the northwest and offshore areas enjoyed unhindered growth, because of the multinational oil companies [MOCs] that negotiated agreements for further development of the country's rich petroleum resources' remained unaffected by the war,[531] which ravaged the country for almost four decades, including the liberation war against Portuguese colonialism,[532] and almost three decades of civil war since independence in 1975.[533] As Hodges indicates, the oil industry has 'escaped the disruption of the war, due to its geographical good fortune of being located primarily in the extreme northwest and, to a considerable extent, offshore'.[534] *Global Witness* concludes that '[a]s [the] Angolan oil industry is primarily based offshore; the international companies [could] effectively isolate themselves from the protracted civil war'.[535]

3.3.5 Challenges

[530] See the *Economist Economic Unit* n 524 *supra*.

[531] See McCormick n 493 *supra* at 3. See also Coakley n 531 *supra* at 3.1.

[532] As Hodges indicates 'Angola has been at war for most of the period since nationalists first took up arms against colonial rule in 1961. There were only a few short months of piece in 1974-75, before the country plunged back into war on the eve of independence in November 1975, and two unstable interludes of "quasi peace" in 1991-92 and 1994-98, before the peace agreement in April 2002'. See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 6.

[533] See Gonzalez A 'Petroleum and its: Impact on Three Wars in Africa: Angola, Nigeria and Sudan' 16 (2010) *Journal of Peace, Conflict and Development* at 78. See also the *Global Witness* n 504 *supra* at 21.

[534] See Hodges n 501 *supra* at 38.

[535] See the *Global Witness* n 467 *supra* at 6.

The Angolan offshore petroleum location has its own drawbacks, the main of which is the fact that it has few natural linkages with other sectors of the economy. As a result, the oil and gas sector can develop and progress very much on its own, without positively affecting the development of national industries and services in Angola. The country thus remains generally over-dependent on oil. Hodges correctly observes that the 'country is now precariously dependent on oil'.[536] Karl also indicates that-

> … over-reliance on petroleum revenues as a mainstay of virtually all economic activity, which tends to put the needs of the oil industry above all else; the lack of productive linkages and the dominance of fiscal ones; the extreme partiality for highly capital-intensive heavy industry coupled with a structural bias against agriculture and other export activities; the perceived necessity to accelerate development very rapidly "before the oil runs out"; and the primacy of the state in the ownership and disposition of oil revenues [all bodes ominously for successful development].[537]

3.3.5.1 The Dutch Disease

Angola's over-dependence on oil has brought about the 'Dutch disease' phenomenon,[538] which also haunts many other resource reach countries.[539] As Alexander and Gilbert

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[536] See Hodges n 501 *supra* at 38.

[537] See Karl n 251 *supra* at 34.

[538] See Govender & Skagestad n 483 *supra* at 12. See also Gelb A *Oil Windfalls: Blessing or Curse?* (New York: Oxford University Press, 1988) 22; Karl TL *The Paradox of Plenty: Oil Booms and Petro-States* (University of California Press, Berkeley California 1997) at 5; Shaxon n 501 *supra* at 57; Stevens n 257 *supra* at 11; Ryggvik H 'The Norwegian Oil Experience: a Toolbox for Managing Resources? available at http://www.sv.uio.no/tik/forskning/publikasjoner/tik-artikkelserie/Ryggvik.pdf (accessed 05 February 2011); *Global Witness* n 504 *supra* at 6; Alexander & Gilbert n 503 *supra*; Smith B 'Oil Wealth and Regime Survival in the Developing World, 1960-1999' 48(2) (2004) *American Journal of Political Science* 232 at 234; and Gasper A 'The Management of the Angolan Oil Revenues: Are there any Chances to Change Course of the "Resource Curse"?' available at www.dundee.ac.uk/cepmlp/gateway/files.php?file=cepmlp *(*accessed 15 April 2013).

correctly indicate, 'Angola exhibits symptoms of both the paradox of plenty and a lack of diversification symptomatic of the "Dutch Disease"'.[540]

According to Govender and Skagestad, the '"Dutch Desease" [is] the phenomenon where an increase in commodity prices (e.g. oil prices) will increase real wages and appreciate the real exchange rate, which in turn lowers competitiveness and production of the non-resource exports sectors'.[541] As Karl indicates, 'this phenomenon [the Dutch Desease] occurs when resource booms cause real exchange rates to rise and labor and capital to migrate to the booming sector. This results in higher costs and reduced competitiveness for domestically produced goods and services, effectively "overcrowding out" previously productive sectors'.[542] Tracing its origins, Karl indicate that-

> the Dutch Desease was first observed in the Netherlands during their natural gas booms of the 1960s, [and] describes how primary export windfalls push up the real exchange rate. This renders most other exports uncompetitive; in this context agriculture and manufacturing sectors tend to languish. Persistent Dutch Desease provokes the rapid, often distorted growth of services, transportation and other non-tradeables while simultaneously discouraging industrialization and agriculture- a dynamic that most policy makers seem incapable of counteracting.[543]

As a result of this over-dependence, Angola is susceptible to the volatility of oil prices.[544] For instance, when the oil prices declined sharply at the end of 1985, Angola's vulnerability became apparent, when despite its high contribution to the total export

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[539] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 3.

[540] See Alexander & Gilbert n 503 *supra* at 22. See also Gasper n 540 *supra* at 5.

[541] See Govender & Skagestad n 483 *supra* at 12.

[542] See Karl n 540 *supra* at 1.

[543] See Karl n 540 *supra* at 43.

[544] See Stevens n 257 *supra* at 10. See also Gasper n 540 *supra* at 5.

earnings (of 90 per cent on average), the industry provided a mere 57 per cent of government revenues.[545] In recent years Angola has also been in critical focus by NGOs for oil companies' transparency in payment to the government.[546]

3.3.5.2 The Resource Curse or 'the Resource Management Impact'

While oil and gas production is the backbone of Angola's economy,[547] its over-dependence on oil renders it particularly vulnerable to the resource curse,[548] or what

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[545] See Hodges n 501 *supra* at 38. It is also important to note that there are many countries in which revenues from oil and gas accounted for at least 25 percent of government income during the period 2005-2008. In addition to Angola, the *International Monetary Fund* (*IMF*) has identified at least 29 countries in this regard, namely Algeria, Azerbaijan, Bahrain, Bolivia, Brunei, Cameroon, Chad, Congo, Ecuador, Equatorial Guinea, Gabon, Indonesia, Iran, Kazakhstan, Kuwait, Libya, Mexico, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, Sudan, Timor-Leste, Trinidad and Tobago, UAE, Venezuela, Vietnam, and Yemen. See in this regard the *IMF, February 2010* 'Fiscal Policy in Oil Producing Countries During the recent oil Price Cycle'. See also *OpenOil* 'Ghana Oil Almanac' p 17 at http://www.openoil.net (accessed 06 May 2013).

[546] See Olsen WH 'Petroleum Revenue Management – an Industry Perspective', a paper delivered at the *Oil, Gas Mining and Chemicals Department of the WBG and ESMAP Workshop on Petroleum Revenue Management* in Washington DC on 23-24 October 2002, pp 10, available at http://www.earthinstitute.columbia.edu/cgsd/stp/Oil%20revenue%20management/General%20Oil%20Documents/AUPeC,%20IMF,%20OECD,%20UNDP%20and%20WB%20documents/Petroleum%20Revenue%20Management%20-%20An%20Industry%20Perspective.pdf (accessed 21 March 2011).

[547] *Ibid.*

[548] See Al-Kasim *et al* define the 'resource curse' as a complex set of political, economic and social factors, whereby countries richly endowed with natural resources experience low economic growth and significant welfare inequalities'. See Al-Kasim *et al* n 256 *supra* at 10. See also Gasper n 540 *supra* at 4; Shaxon n 486 *supra* at 57*;* Kolstad I, Wiig A & Williams A 'Mission

Karl refers to as 'the paradox of plenty'.[549] Govender and Skagestad argue that 'the "resource curse" phenomenon is a particular challenge for oil rich countries like Angola'.[550] After examining the evidence for and against the applicability of the resource curse thesis to Angola recently, Shaxson concluded that the resource curse is 'very real in Angola's case'.[551] According to him, 'Angola's great wealth and rapid growth, combined with extremely poor social outcomes and widespread international findings that the country is poorly governed and highly corrupt, suggest that Angola may well be suffering from a bad case of the "resource curse".'[552]

3.3.5.3 Corruption and Political Patronage

While Stevens correctly indicates that large revenues accruing from natural resources should generate wealth for an economy, promote economic progress and reduce poverty, this has not normally been the case in Angola.[553] Like many newly independent countries in Africa, Angola suffered from significant social and political instability. But despite its difficult post-independence history, Angola maintained the ranking of second largest oil producer in Africa and was thus able to generate billions of dollars in petroleum revenue.[554]

Improbable: Does Petroleum-Related Aid Address Corruption in Resource-Rich Countries?' at 7, available at http://www.cmi.no/publications/file/3048-mission-improbable.pdf (accessed 28/02/2011); Hamilton K & Ruta G 'From Curse to Blessing: Natural Resources and Institutional Quality' (2006) *Environment Matters* 24;Le Billon P 'The Political Ecology of War: Natural Resources and Armed Conflicts' 20 (2001) *Political Geography* 561 at 563.

[549] See Karl n 540 *supra* at 34. See also Alexander & Gilbert n 503 *supra* at 10; Shaxon n 523 *supra* at 1.

[550] See Govender & Skagestad n 483 *supra* at 13.

[551] See Shaxon n 523 *supra*.

[552] See Shaxon n 523 *supra* at 57.

[553] See Stevens n 257 *supra* at 5.

[554] See Alexander & Gilbert n 503 *supra* at 16.

Discussing the post-September 2008 election political economy in Angola, which projects rapid increment in oil revenue, Govender and Skagestad comment that '…if Angola is "in peace" it is not yet "fully at peace", given the fact that the majority of Angola's population still do not have an equitable share in the growing [oil] prosperity'.[555] Massive sums of oil revenue have been spent on financing armed conflict,[556] but were also misused or misappropriated by a corrupt government system.[557]

According to Gasper, 'corruption can take various forms; the most alleged forms in Angola are the following: a) embezzlement of financial assets from the natural resources by the government official; [and] b) collusion of government officials with international oil companies to get a personal financial gain'.[558]

Al-Kasim and others indicate that 'corruption is a key element in a resource curse' situation.[559] They define corruption in the context of oil regulation as 'the manipulation of framework conditions to attain exclusive benefit to individuals or groups at the cost of social benefits'.[560] Kolstad and Wiig indicate that 'corruption is a huge problem in many developing countries that are rich in natural resources. It is central in explaining why resource-rich countries perform badly in terms of socio-economic development, a phenomenon that has been termed the resource curse'.[561] According to Karl, in the

[555] See Govender & Skagestad n 503 *supra* at 10.

[556] See Gonzalez n 535 *supra* at 78.

[557] See Kolstad I & Wiig A 'Is Transparency the Key to Reducing Corruption in Resource-Rich Countries?' 37(3) (2009) *World Development* 521-532. See also the *Global Witness* n 504 *supra* at 4; and Thurber *et al* n 417 *supra* at 15.

[558] See Gasper n 540 *supra* at 6.

[559] See Al-Kasim *et al* n 255 *supra* at 14

[560] *Ibid*.

[561] See Kolstad & Wigg n 565 *supra* at 521.

context of misuse of oil revenues, corruption 'is more narrowly defined as the misuse of public power or resources for private gain, and it is generally illegal'.[562] Hodges indicates that the 'weakness of procurement procedures [in Angola] has provided opportunity for kick-backs on government contracts, while the opaqueness of public finances, resulting from the high level of extra budgetary operations and the secrecy surrounding the oil-guaranteed loans, makes it easy to hide the diversion of state resources to private individuals and companies'.[563] According to Gasper[t]here have been several reports suggesting that government officials have received bribes and kickbacks from international oil companies. It has even been alleged that foreign oil companies have been giving funds to a foundation – Fundacao Eduardo dos Santos (FESA) - linked to the Angola president, in order to maintain good relationship with the authorities.[564]

Reed also notes that,

> corruption is rampant in Angola. A significant portion of the fantastic rents, signing bonuses, and royalties from Angola's offshore oil flow are diverted into offshore bank accounts; over four billion dollars in oil revenues bypassed state coffers between 1998 and 2002.[565]

Corruption in Angola is also vividly illustrated by an *IMF* fiscal audit in which Angola is reported to have been unable to account for hundreds of millions of dollars of oil revenues.[566]

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[562] See Karl n 451 *supra* at 2.

[563] See Hodges n 501 *supra* at 188.

[564] See Gasper n 540 *supra* at 6.

[565] See Reed K *Crude Existence: Environment and the Politics of Oil in Northern Angola* (University of California Press 2009) 6.

[566] See the *IMF* 2003 'Angola: Staff Report for the 2003 Article IV Consultation'. Statistical Appendix, July 11, 2003, pp. 77-78 available at http://www.imf.org/external/pubs/ft/scr/2003/cr03291.pdf (accessed 22 April 2013). See also Jerome A *et al* 'Addressing Oil Related Corruption in Africa: is the Push for Transparency Enough?' 11(1) (2005) *Review of Human Factor Studies* 7 at 9.

Shaxon cautioned that corruption in the context of revenue in Angola, which he reckons, 'is not as bad as some other oil-producing states, such as that in Nigeria or Equatorial Guinea',[567] should be contextualised. He indicates that-

> one of the central elements of Angola's governance problems is what the World Bank has called its dual financing system, where part of the state budget is managed through the conventional mechanisms involving the Treasury, the Ministry of Finance, and the Central Bank, whereas another part, involving oil sales outside normal budgetary processes, is managed by other bodies – notably by Sonangol. This has also been referred to as the "Bermuda Triangle" (where money disappears without a trace). This triangle has been variously depicted, but the most accurate account places the presidency at the top vertex, Sonangol and the state diamond company Endiama at another (subordinate) vertex, and the Finance Ministry and the rest of the conventional revenue and spending apparatus at the third, also subordinate, vertex.[568]

He offers two explanations for the dual financing system of Angola which is often blamed for corruption. In terms of the dual financing system, 'part of the budget was managed through conventional mechanisms involving the Treasury, the Ministry of Finance, and the Central Bank, whereas another part, involving oil sales outside normal budgetary processes, is managed by other bodies – notably by Sonangol'.[569] According to Ramos,

> a large share of income and expenditure is executed outside the ordinary budgetary framework and a parallel state finance system exists, which makes it very difficult to track monetary transactions between the various institutions representing the state – such as the treasury, the central bank, Sonangol and the *Banco Africano de Investimentos* (a private Angolan bank whose largest shareholder is Sonangol).[570]

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[567] See Shaxon n 523 s*upra* at 71.

[568] *Ibid*.

[569] See Shaxon n 523 *supra*.

[570] See Ramos ML "Angola's Oil Industry Operations" at p 12, available at http://www.osisa.org.za (accessed 17 April 2013).

In other words, special structures, outside the conventional finance system, are set up to facilitate the routing of repayments for loans outside Angola's financial system – namely, by making repayments directly in oil cargoes, guaranteed by Sonangol.[571] The dual financing system developed historically as a result of the mass exodus of Portuguese settlers after independence and the civil war that followed and resulted in the collapse of the economy. The cumulative effect of these events was a desperate financial need for Angola. Shaxon indicates that pursuant to this, a stage was set for 'the emergence of an open, mineral-fed political patronage system, which endures in Angola to this day'.[572]

Allocating resources according to political, rather than market criteria can create appearances of corruption, and compromise good governance principles. A productive and lucrative oil industry has been found to offer an ideal basis for encouraging patronage politics (in other countries, aid money, rather than oil, has played a similar role) – and corruption thereby becomes an almost inevitable consequence.

In Angola, oil resources have also been used to finance the government's endeavours to the civil war.[573] Hodges indicates that 'one of the main problems in Angola has been the

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[571] *Ibid*.

[572] See Shaxon n 523 *supra* at 58

[573] Oil revenues were used by the MPLA to purchase military equipments such as 'aircraft, vehicles and artillery from Brazil, helicopters, air-to-ground missiles and a variety of ammunition from France as well as AK-47s, Ural trucks, rocket-propelled grenades, motors, ammunition, T-55 tanks and fighter aircraft from Russia'. See De Beer H & Gamba V 'The Arms Dilemma: Resources for Arms or Arms for Resources?' in Cilliers J & Dietrich C (eds) *Angola's War Economy: the Role of Oil and Diamonds* (Pretoria: Institute for Security Studies, 2000) 78 at 87. See also the *Global Witness* n 504 *supra* at 11, where it is indicated that 'the majority of this money [from oil revenues] is likely to have been spent on weapons shipments, and a significant proportion of the remainder was probably also earmarked for weapons procurement, via the national budget'. However, this phenomenon is not unique to Angola or other African states.

tendency for these resources [oil revenues] to be wasted on military expenditure or transferred to the elite for consumption- or investment outside the country.[574] He continues that, 'as the principal means of financing the [civil] war, [the oil industry benefited] from pragmatic government policies designed to attract foreign investment'.[575] An article in the *Global Policy Forum* in 1999 indicated that 'government forces backed by the Soviet Union and Cuba are now funded by oil revenues'.[576] The *World Bank* study on Angola also concludes that,

> …out of Angola's oil income, little was returned to tax payers or saved for the future. Because of the lack of experience in economic management, the lion's share of the oil windfall was channelled into unprofitable ventures or spent on current consumption (i.e., expenditure for defence and consumption on imports)…[577]

Another study indicates that, 'for complex historic and geopolitical reasons, until now and with very few exceptions African oil revenues [including Angola's] have been rather fruitless: they rarely bring about accumulation of capital or truly productive investments'.[578] The later study continues that, 'in Africa revenues coming from oil exploitation are often siphoned off, squandering profits (through ostentatious consumption and other types of unproductive spending, often military).'[579]

Ryggvik indicates that '[f]or more than 100 years, oil has been easily the world's most important strategic military source'. See Ryggvik n 540 *supra* at 8.

[574] See Hodges 'The Economic Foundations of the Patrimonial State' n 504 *supra* at 183.

[575] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 6.

[576] See the *Global Policy Forum* (8th October 1999) 'The Angolan Civil War Part I: Oil', Drillbits & Tailings', available at http://www.globalpolicy.org.za/component/content/article/198/32877.html, (accessed on 16 January 2011).

[577] See *World Bank Country Study: Angola: an Introductory Economic Review* (The International Bank for Reconstruction and Development, Washington DC 1991) 35.

[578] See Magrin & Van Vliet n 496 *supra* at 104.

[579] *Ibid*.

As a result, in Angola, from 2000 to 2004, 2 million people survived only with the assistance of the World Food Program.[580]

As Hodges correctly indicates, '[i]f [Angola's oil and gas resources] were managed properly, [her] economy would be among the most dynamic in the developing world. Its people would be among the best fed, best educated and healthiest on the African continent'.[581] As indicated earlier, this is not the case in Angola.

3.3.5.4 Poverty, Deprivation and Conflict

1n 2003 the *IMF* reported that Angola's oil boom sharply contrasts wide spread poverty.[582] In 2012, the *IMF* reported that although 'during the oil price boom of 2003–08 Angola began to rebuild its infrastructure, the oil and non-oil sectors grew substantially, and per capita GDP reached middle-income levels', 'income inequality remains high, and poverty in rural areas is widespread'.[583]

As Gasper indicate,

> Angola [was] facing secessionist bid and political clashes in Cabinda, an oil-rich region in the northern part of the country. One of the major reasons for this conflict is the feeling by the Cabindan people that they are not getting enough from their natural endowments. It should be borne in mind that Cabinda alone accounts for two-thirds of the Angola's current oil production, contributing more than $5 billion dollars to Angola's gross export earnings.[584]

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[580] See Magrin & Van Vliet n 496 *supra* at 105.

[581] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 1.

[582] See the *IMF 2003* n 574 *supra* at 5.

[583] See the *IMF 2012* 'Angola: 2012 Article IV Consultation and Post Program Monitoring' at p 4, available at http://www.imf.org/external/pubs/ft/scr/2012/cr12215.pdf (accessed 22 April 2013).

[584] See Gasper n 540 *supra* at 7.

Proceeds from oil enabled the Angolan government to vigorously pursue its conflict with rebel National Union for the Total Independence of Angola or *União Nacional para a Independência Total de Angola* (UNITA) until April 2002 when the war came to an end after Jonas Savimbi was killed.[585]

As he continues,

> [t]he paradox of the plenty hinted above is also manifested in a social paradox. Although oil gives the country an income of $ 3,835(WB) 21 per capita, only a little of the oil revenue reaches the mass of the population. Oil wealth has been benefiting aparticular elite called "oilnomenklatura" linked by family or marriage ties, which also happens to be the ruling elite.[586]

Clarke also indicates that poverty in Angola is acute.[587] 'Its roots lie in 25 years of grinding internal conflict between the government and the UNITA, inter-state Southern African wars, and consequent regional and urban/rural differentiation resulting in massive social dislocation'.[588]

3.3.6 The Regulatory Framework in Historical Context

With an initial steady decrease of production over the first five years after independence in 1975, towards 1982, the independent government took its first steps to develop a national oil policy, establishing an Angolan national corporation, named Sonangol (the *Sociedade Nacional de Combustiveis de Angola*), in 1976.[589]

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[585] See Jerome *et al* n 574 *supra* at 16.

[586] *Ibid*.

[587] See Clarke D 'Petroleum Prospects and Political Power', available at http://www.iss.co.za/pubs/books/Angola/10Clarke.pdf (accessed 15 April 2013) p 197.

[588] *Ibid*.

[589] Under Decree No. 57 of 9 June 1976.

In 1978 legislation designated Sonangol as the exclusive concessionaire for all oil exploration and production rights.[590] Read together with the Angolan Constitution,[591] this law vested the state with ownership of petroleum resources. The General Petroleum Activities Law No. 13/78 of 26 August 1978 (the General Petroleum Activities Law) provided that-

> all deposits of liquid and gaseous hydrocarbons which exist underground or on the continental shelf within the national territory, up to the limit of the jurisdictional waters of the People's Republic of Angola, or within any territorial domain over which Angola exercises sovereignty, as established by international conventions, belongs to the Angolan People, in the form of state sovereignty.

Under this law, IOCs were allowed to conduct oil and gas exploration and production either under a PSA or on a JV[592] basis with Sonangol. As Clarke notes,

> [w]hile the state company *Sociedade Nacional de Combustiveis de Angola* (Sonangol) dominates the Angolan oil industry, the activity of key foreign companies is critical. These include Agip, BPAmoco, Chevron, TotalFinaElf, Exxon and Texaco as well as numerous independents either as operators, partners or equity players. There are even a few national oil companies involved, such as Statoil, Petrobras and Petronas. Such patterns are common in world petroleum and are a standard mechanism for risk sharing.[593]

In 1978 to 1979 Sonangol conducted seismic surveys in the continental shelves of the coastal Angola, which led to the government's division of the coast into thirteen

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[590] The General Petroleum Activities Law of 1978 (Law 13/78 of 26 August 1978). See Taverne n 436 *supra*, and the *Global Witness* n 467 *supra* at 5.

[591] The 1992 Constitution of Angola, which has now been repealed and replaced by the Constitution of the Republic of Angola of 31 January 2010. See article 13, read together with article 3 of the Angolan Constitution of 2010.

[592] In 1978, the government authorised Sonangol to acquire a 51 per cent interest in all companies with oil operations in Angola, although the management of such operations was to remain in foreign control.

[593] See Clark n 5958 *supra*.

exploration blocks.[594] These oil exploration areas were then leased to IOCs through PSAs. The Angolan government created a further 17 exploration blocks in the deep water deposits and, in May 1991, the first three 'ultra-deep'[595] water blocks were awarded.

The General Petroleum Activities Law was revised and repealed, in 2004, by the Petroleum Activities Law 10/04 of 12 November 2004 (the Petroleum Activities Law).[596] The revisions dealt mainly with technical access to oil and gas extraction in Angolan territories, specifically within the context of commercial production. The law additionally mentions the importance of business development within Angola, in order to promote socio-economic development within the country.[597]

3.3.7 The Current Regulatory Framework

[594] See McCormick n 493 *supra* at 39.

[595] According to Cuvillier 'there are multiple definitions of "deep" water, which vary depending on the activity being considered. Generally for well construction, 15000 ft, or 500 m, is considered deep. Deeper than that, the technology requirements change but solutions are available. And deeper than 7000 ft, or 2000 m, is ultra-deep water'. See Cuvillier G *et al* 'Solving Deep-Water Well Construction Problems' (Spring 2000) *Oilfield Review* 4, available at http://www.iss.co.za/pubs/books/Angola/10Clarke.pdf (accessed 15 April 2013).

[596] See article 97 of Law No. 10/04 of 12 November 2004, (hereinafter 'the Petroleum Activities Law'). It is very important to note that Angola has a civil law based legal system where legislation is the primary source of law. Cases law therefore does not have the binding authority as it is the case in common law systems (such as South Africa), and is not considered a source of law. The landmark cases would be decided by the *Tribunal Supremo*, which in addition to being the Supreme Court of the Angola, is also transitionally taking the jurisdiction of the yet to be established Constitutional Court. Unfortunately the *Tribunal Supremo* does not yet have a website and cases are unreported. Therefore it is very difficult to find an Angolan case online or even in print format. See in this regard, Rainha P 'Republic of Angola - Legal System and Research' available at GlobaLex http://www.nyulawglobal.org/Globalex/Angola.htm (accessed 27 March 2014).

[597] See article 26 of the Petroleum Activities Law.

The Angolan oil industry is currently regulated through a complex organisational structure, legislative framework, and contractual arrangements.

3.3.7.1 The Organisational Structure

The current regulatory framework in Angola established an organisational structure for the oil industry. Within the government, there is a Ministry of Petroleum (MinPet) with the responsibility of overseeing the oil industry.[598] The MinPet approves exploration and development activities, regulates field productions levels, and jointly with the Ministry of Finance and the National Bank of Angola (BNA), supervises the operations and investments of Sonangol.[599]

As an NOC, Sonangol has a central role to play in the oil industry, and performs multiple tasks. Its activities include the exploration and production of oil; the development of oil support services; exportation of oil; and oversight of hydrocarbon and gas policy.[600]

As indicated earlier, Sonangol in turn holds the exclusive concessions for the exploration, development, production, storage, transportation, distribution and marketing of oil products in Angola.[601] To conduct these operations, Sonangol is allowed to enter into JVs in which it splits investment costs and production according to their respective shareholding. In accordance with the carried-interest system, Sonangol may also enter into PSAs with IOCs in terms of which the IOCs serve as contractors to Sonangol, bear

[598] See the *Global Witness* n 504 *supra* at 5.

[599] *Ibid.*

[600] *Ibid.*

[601] *Ibid.* See also *the Development Bank of Southern Africa* 'Oiling Economic Growth and Development: Sonangol and the Governance of Oil Revenues in Angola' http://www.dbsa.org (accessed 15 April 2013) p, 8.

the full cost of exploration and development but recoup their investment through 'cost oil' and 'profit oil'. Sonangol supervises the IOCs and has the power to collect taxes and revenues on behalf of the state.[602]

It should be noted that in Angola, there is no independent regulatory institution, and while the law does formally vest certain oversight powers in the MinPet, in practice the NOC, Sonangol, is the sector manager, and operator all rolled into one,[603] thus creating potential for conflict of interest. In other words, the so called 'separation of functions models' which applies in Norway, whereby the policy, regulatory, and commercial functions in the petroleum sector are formally separated,[604] is unknown in Angola. In contrast, the Norwegian petroleum resources are administered by three distinct government bodies, namely an NOC (Statoil), which is engaged in commercial hydrocarbon operations; a government ministry, the Ministry of Petroleum and Energy, which is responsible mainly for policy development; and a regulatory body, the NPD, which provides oversight and technical expertise.[605] Sonangol's shortcomings in terms of governance have been criticised on four counts, namely its conflicting roles, both as regulator and as player in the oil industry;[606] its weak corporate governance,[607] including

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[602] *Ibid.*

[603] Thurber *et al* n 417 *supra* at 14. The daughter of the Angolan President is said to be the richest woman in Africa, thanks to the oil revenues.

[604] See n 456 *supra*.

[605] *Ibid.*

[606] Sonangol assumes a variety conflicting roles in Angola. It is both a concessionaire and a player in the petroleum sector and this gives rise to serious conflicts of interest, including Sonangol receiving and paying petroleum taxes. See the *Development Bank of Southern Africa* n 609 *supra* at 14.

[607] According to the *Development Bank of Southern Africa* 'international NGOs such as the *Global Witness* (2004) and other have accused Sonangol of facilitating the plundering of national oil revenues via a complex manipulation of its good credit reputation, offshore bank accounts and high political connections. The main vehicles for this practice have been identified as oil-

poor accounting practices;[608] its flawed oil revenue management; and its close links to the presidency.[609]

3.3.7.2 The Legislative Framework

Several pieces of legislation govern the exploration and licenses granted to IOCs and the allocation of revenue in Angola. The first and most important legislation is the Constitution of Angola.[610] The constitution is the supreme law of Angola.[611] Article 6 of the constitution provides as follows:

1. the constitution shall be the supreme law of the Republic of Angola;
2. the state shall be subject to the Constitution and shall be based on the rule of law, respecting the law and ensuring that the law is respected; and
3. laws, treaties and other acts of the state, local government bodies and public bodies in general shall only be valid if they conform to the Constitution.

Read together with article 3, article 16 of the Constitution provides for state sovereignty over natural resources. In terms of this article-

> [t]he solid, liquid and gaseous natural resources existing in the soil and subsoil, in territorial waters, in the exclusive economic zone and in the continental shelf under the jurisdiction of Angola shall be the property of the state, which shall determine the

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backed loans and signature bonuses'. See the *Development Bank of Southern Africa* n 609 *supra* at 14.

[608] In addition to irregular accounting, this include a lack of capacity; and the allegation by NGOs that SONANGOL's books are not audited by an independent auditing firm. See the *Development Bank of Southern Africa* n 609 *supra* at 14.

[609] There is a general perception that Sonangol reports to none other than the President in Angola. See the *Development Bank of Southern Africa* n 609 *supra* at 14.

[610] The Constitution of the Republic of Angola of 31 January 2010.

[611] See article 6 of the Angolan Constitution of 2010.

conditions for concessions, surveys and exploitation, under the terms of the Constitution, the law and international law.

The principal legislation in this regard is the Petroleum Activities Law of 2004.[612] This Law repealed the 1978 Law,[613] and consolidated, in a single statute, the principles that flow from the previous petroleum law, the existing concession decrees, the existing exploration and production contracts, as well as the industry practice developed throughout the years in Angola.

The Petroleum Activities Law defines all oil resources as property of the Angolan people. Consistent with the original and repealed 1975 Angolan Constitutional Law, and the 2010 Angolan Constitution,[614] in its preamble, the Petroleum Activities Law maintains the principle of state ownership of petroleum resources.[615] This important principle is reinforced in article 3. Read together with article 1, article 3 of the Petroleum Activities Law provides that petroleum deposits existing in the areas of the surface or subsurface areas of the Angolan national territory, inland waters, territorial waters, EEZ and the continental shelf, are an integral part of the public property of the state.

In line with the principle of state ownership of petroleum resources, the Petroleum Activities Law further upholds the principle of exclusivity of the national concessionaire, in the form of an NOC, namely Sonangol.[616] This means that Sonangol is the exclusive holder of all mining rights in Angola.[617] Mining rights are granted by the government to

[612] See n 604 *supra*. What we refer to as an 'Act' in South Africa is referred to as 'Law' in Angola. For instance, the Petroleum Activities Law 2004 (PAL) and the Law on Taxation of Petroleum Activities 2004 (PTL).

[613] See Taverne n 436 *supra* at 270.

[614] See article 16 read together with article 3 of the 2010 Angolan Constitution.

[615] See n 604 *supra*.

[616] See article 4(1) of the Petroleum Activities Law.

[617] See article 4 of the Petroleum Activities Law.

Sonangol in terms of article 44 of the Petroleum Activities Law. However, in addition to and other than Sonangol, other oil companies can apply and be granted prospecting licenses, as an exception to the monopoly over oil rights established by statute in favour of Sonangol. Furthermore as Clarke indicate,

> through the Joint Operation Agreement (JOA) Sonangol can also be an associate with foreign companies, participating as a partner in the management of oil operations. The government approves such agreements on a case-by-case basis. Similar legal structures are found around the world.[618]

As an exclusive concessionaire, Sonangol cannot transfer its mining rights, whether in all or in part.[619] Any action to this effect is deemed null and void.[620] Petroleum operations may only be carried under a prospecting license or petroleum concession.[621] In terms of article 8 of the Petroleum Activities Law, the power to issue prospecting licenses is vested in the MinPet, while government is responsible for granting concessions for the exercise of mining rights.

The Minister may, on application by any Angolan or foreign company of recognised capacity, technical knowledge, and financial capability, issue a prospecting license, by an executive decree under article 8, in order to evaluate the petroleum potential of a given area.[622] The duration of a prospecting license must be indicated on the respective license.[623] The maximum period of a prospecting license is 3 years. This can, however, be extended in exceptional circumstances at the request of the licensee or the national concessionaire.[624]

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[618] See Clarke n 595 *supra.*

[619] See article 5 of the Petroleum Activities Law.

[620] *Ibid.*

[621] See articles 6, 33, and 44 of the Petroleum Activities Law.

[622] See articles 33 and 34 of the Petroleum Activities Law.

[623] See article 12 of the Petroleum Activities Law.

[624] *Ibid.*

Article 44 of the Petroleum Activities Law regulates the granting of concessions and status of associate of the national concessionaire. If the national concessionaire does not wish to associate itself with any other entity in order to conduct petroleum operations in a given area, the government may, at the request of the national concessionaire, award a concession directly by publication, in the official gazette, of the relevant concession decree.[625] Otherwise the concession shall be granted to the national concessionaire by means of a concession decree and shall be deemed effective on the date of the execution of the relevant contract.[626]

Any company that wishes to carry out petroleum operations in Angola outside the scope of a prospecting license may only do so together with the national concessionaire.[627] Companies are therefore obliged to enter into some association or contractual arrangement with the national concessionaire, provided such companies have the recognised capacity, technical knowledge, and financial capability to undertake petroleum operations.[628] Such an association may take the form of a corporation, a consortium, a PSA, or a risk service agreement.[629] The participation of the national concessionaire in these associations shall include the right to take part in the management of petroleum operations.[630]

A concession area is defined by the Minster, by executive decree, upon obtaining authorisation from the government.[631] As a rule, the duration of a concession comprises two periods divided into phases, namely the exploration period, comprising an exploration phase and an appraisal phase; and a production period, comprising a

[625] See article 44(1) of the Petroleum Activities Law.

[626] See article 44(2) of the Petroleum Activities Law.

[627] See article 13 of the Petroleum Activities Law.

[628] See article 14 of the Petroleum Activities Law.

[629] *Ibid.*

[630] See article 17 of the Petroleum Activities Law.

[631] See article 11 of the Petroleum Activities Law.

development phase and a production phase.[632] Concessions may, however, cover only the production period.[633] The duration of each of the concession periods must be indicated on the concession decree.[634]

Supplementary legislation relating to petroleum activities includes the Petroleum Customs Law,[635] the Law on Taxation of Petroleum Activities,[636] and the Law on Foreign Investments.[637]

Realising the unique nature of the petroleum industry, including the need for large investments in this industry, a custom regime that is different from other industries, was implemented in terms of the Petroleum Customs Law, passed in November 2004.[638] This Law regulates, amongst others, issues such as exemption on importation of goods for petroleum operations (local content);[639] the exemption on exportation of petroleum;[640] and the protection of the Angolan market.[641]

The Law on Taxation of Petroleum Activities was promulgated to regulate fiscal issues relating to petroleum operations in Angola.[642] These include tax charges such as a petroleum production tax, a petroleum income tax, and a petroleum transaction tax.[643] The petroleum production tax is levied on entities conducting petroleum operation in

[632] See article 10 of the Petroleum Activities Law.

[633] *Ibid.*

[634] See article 12 of the Petroleum Activities Law.

[635] Law No. 11/2004 of 12 November 2004.

[636] Law No. 13/2004 of 24 December 2004.

[637] Law No. 10/79 of 22 June 1979.

[638] See the preamble and article 1 of the Petroleum Customs Law.

[639] See article 4 of the Petroleum Customs Law.

[640] See article 8 of the Petroleum Customs Law.

[641] See article 6 of the Petroleum Customs Law.

[642] See article 3 of the Law on Taxation of Petroleum Activities.

[643] See article 4 of the Law on Taxation of Petroleum Activities.

Angola at the rate of 20 per cent.[644] The petroleum income tax, on the other hand, is payable at a rate of 50 per cent, in case of PSAs, and 65.75 per cent, in cases where no association exists.[645] Lastly, the petroleum transaction tax is payable at a flat rate of 70 per cent.[646] This Law also regulates general fiscal issues such as ring fencing,[647] and cost recovery rules.[648] It also deals with the contribution for the training of Angolan nationals;[649] surface tax,[650] and exemptions.[651]

The concession decree model is utilised to regulate the economics of the oil industry as a whole. It is a mechanism through which concession areas, termed blocks, are controlled by the government on the basis of a special licensing regime, by way of granting concession decrees. The concession decree bestows rights to the concessionaire and determines the corresponding main duties. Among these are the execution of approved work plans, the production of monthly reports relative to the service contracts or tasks initiated, and the custody cutting samples, perforation cores, and geological and geophysical reports.[652] Sonangol, as the national concessionaire,

[644] See article 14 of the Law on Taxation of Petroleum Activities. This rate may be reduced to as little as 10 per cent in cases petroleum exploitation in marginal fields; petroleum exploitation in offshore of depths exceeding 750 meters; and petroleum exploitation in onshore areas which the government has previously held to be difficult to reach.

[645] See article 41 of the Law on Taxation of Petroleum Activities.

[646] See article 48 of the Law on Taxation of Petroleum Activities.

[647] See article 5 of the Law on Taxation of Petroleum Activities.

[648] See article 21 of the Law on Taxation of Petroleum Activities.

[649] See article 57 of the Law on Taxation of Petroleum Activities.

[650] See article 79 of the Law on Taxation of Petroleum Activities Law.

[651] See article 11 of the Law on Taxation of Petroleum Activities.

[652] There are various examples of these Decrees, including Decree 127/03 of 25 November 2003, in respect of the regulation of the use of the Angolan national business community's goods and services in activities which support the oil operations; Decree 30/95 which relates to the regulation of financial flows and currency exchange operations that corresponds with the exports and sales of oil by the oil companies, in order to support the currency exchange operations of those companies relative to payment of taxes due to the ministry of Finance, and

has been awarded or is a majority holder of the concessions or, together with other oil companies, is a partner in a number of concessions; consequently there are few blocks in respect of which concessions have been awarded solely to other oil companies to the exclusion of Sonangol.[653]

Of particular importance is Decree No. 1/09 of 27 January 2009, which enacted special Petroleum Regulations governing operations. Among other things, the regulations set forth, (i) the rules and procedures governing the conduct of onshore and offshore petroleum operations in Angola by the associates of the national concessionaire; (ii) the rules applicable to the granting of prospecting licenses; and (iii) the procedure for direct negotiations for the granting of petroleum concessions.[654] The Petroleum Regulations cover all phases of energy and petroleum activities, including but not limited to

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take into consideration the financial transactions associated with a special account created for that purpose in the BNA. A fundamental principle of decree 30/95 is that the taxes of all companies shall be paid to the Ministry of Finance using the BNA as an intermediary. Recent important examples include Decree 116/08 of 14 October 2008 which introduced important changes regarding training and recruitment of Angolan personnel for the oil sector; Decree-Law No. 17/09 of 26 March 2009, which revoked the former Decree; and Decree 120/08 of 22 December 2008 which set rules for access to onshore areas and land acquisition rights for petroleum operations.

[653] See Clarke n 595 *supra* at 197. See also Angola's concession map at http://www.eia.gov/countries/analysisbriefs/Angola/pdf/angola_concessions.pdf (accessed 15 April 2013). From this Map it is clear that Sonangol is not involved in blocks 15, 17 and 18 in the deep water production activity area. Furthermore, 'the Angolan government, through the wholly state-owned national oil company *Sociedade Nacional de Combustiveis de Angola* (Sonangol), has now granted rights to conduct petroleum operations in relation to 33 of its 34 blocks to a 'who's who' of international oil companies, including BP, Chevron, ENI, ExxonMobil, Petrobras, Statoil, and Total. See in this regard http://www.freshfields.com/uploadedFiles/SiteWide/News_Room/Insight/Africa_ENR/Angola/Angola%20oil%20and%20gas.pdf (accessed 15 April 2013).

[654] See Kiernan PM *et al* 'International Energy and Natural Resources' 44(1) (2010) *International Lawyer* 367 at 368.

prospecting, exploration, appraisal, development, production and abandonment of wells, and the recovery of petroleum.[655]

3.3.7.3 Contractual Arrangements

Any company wishing to conduct petroleum activities in Angola is obliged to enter into some association with Sonangol, the national concessionaire.[656] The contractual associations may take the form of a normal business corporation or consortium, a PSA, or a risk service contract.[657]

The contractual associations take the form of JOAs.[658] These allow Sonangol to do business with IOCs and participate as a partner in the management of oil operations. Although the government approves such contracts on a case by case basis, Sonangol is authorised to serve as an associate or equity partner in order to maximise profit.

Sonangol and its partners share in the petroleum produced, according to a percentage interest.[659] For instance, a company with 10 per cent stake in a JV will have to pay 10 per cent of the costs associated with it. The IOCs will then pay a series of taxes and royalties on their equity shares to the government,[660] and the profit that remains is then divided up amongst the participants in the license. Under the JVs, Sonangol has to provide its share in the funding upfront, and this has produced complex financing structures**.**

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[655] *Ibid.*

[656] See article 13 of the Petroleum Activities Law (Law No. 10/04).

[657] See article 14 of the Petroleum Activities Law (Law No. 10/04).

[658] See Clark n 595 *supra* at 200.

[659] See Hodges n 501 *supra* at 53.

[660] *Ibid.*

In Angola, use is also made of both PSAs/PSCs and service agreements.[661] PSAs are the main device for Sonangol, as national concessionaire, to authorise the implementation of exploration and production in the area of the concession by a group of grantees, including one or more FOCs and, in some cases, Sonangol itself.

In 1979 Angola adopted a model PSA for shallow waters, and later modified the contract with fiscal incentives applied to demarcated deep-water zones.[662] As Clark indicates,

> [t]he Production Sharing Agreement (PSA) is a legal instrument requiring the contractor to finance all exploration and production operations which, if successful, leads to cost recovery plus a share of profit via a production share. It sets out concession boundaries, accounting needs, and financial/bank guarantees and enables a corporate guarantee for commitments. This PSA is a standard mechanism worldwide and was selected in 1979 after the government considered then existing models. It was adapted to meet local needs, especially for the shallow waters (under 200 metres), and later modified with fiscal incentives applying specifically to the demarcated deep-water zones. The system is fiscally efficient and ensures that more goes to government if fields are highly profitable and, if not, company returns are protected by 'adequacy'.[663]

With the exception of the Cabinda Concession, the 1979 model PSA served as the basis for all oil licenses awarded by Sonangol.[664] While the 1979 PSA with Texaco allowed for a government share of between 70 and 95 per cent, subsequent agreements reduced the minimum share to between 40 and 55 per cent.[665] Contracts signed during the 1990s have a rate-of-return-based sliding scale as opposed to the earlier volume-based scale for profit oil.[666] The exploration period used to consist of an initial three-year phase

[661] These are in addition to associations between Sonangol and other entities in the form of a corporation and a consortium. See in this regard article 14(2) of the Petroleum Activities Law.

[662] See Kaiser & Pulsher n 491 *supra*.

[663] See Clark n 595 *supra* at 199.

[664] Hereinafter 'the model PSA', See the *Global Witness* n 504 *supra* at 5.

[665] See Bindemann n 275 *supra* at 70.

[666] *Ibid.*

with the option of two one-year extensions.[667] The 1991 model PSA altered this to four years with a possible extension.[668] The model PSA specifies the kind of work to be conducted; the extent, however, is to be agreed between the partners for individual contracts.[669] FOCs have to pay a signature bonus and fulfil, at Sonangol's request, their marketing obligation of the NOC's production share.[670]

As Bindemann indicates,

> One of the toughest features of the Angolan contracts used to be the, meanwhile abolished, price cap which varied from $13 per barrel in 1980 to $32 per barrel in 1988. Under the price cap formula the government was guaranteed 100 percent of any revenue received over a certain price per barrel. For example, if the world price was $15 per barrel and the price cap was set at $13 per barrel the FOC would be liable to pay $2 per barrel to the government. The revision of the price cap to $20 and over was, however, not much of an incentive at a time when oil prices were declining sharply. By the same token the alteration of profit-oil shares for marginal fields in favour of the FOCs during the 1980s was of little interest to companies who were looking for major discoveries which still fell into the lower production-share brackets. Thus, it is no surprise that Barrows … evaluated the country's oil regime as very tough.[671]

Bindemann, however, argues that although Angola's PSAs were justifiably labelled 'very tough' initially, they have been softened to 'tough' in the 1980s.[672]

On 31 March 2006, a new model PSA was issued giving effect to and complementing the new Petroleum Law.[673] It allows for significant variation of contractual terms, but sets guidelines for the awarding of permits, costs and fees.

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667 *Ibid.*

668 *Ibid.*

669 *Ibid.*

670 *Ibid.*

671 *Ibid.*

672 *Ibid.*

Under the PSA system, and in accordance with the carried-interest system, the contractor groups bear all the cost of exploration and development, even if no commercial discovery is made. For instance, article 10 of the model PSA provides as follows:

> [e]xcept as otherwise provided for in this Agreement, the costs and expenditures incurred in the petroleum operations, as well as any loss and risks derived therefrom shall be borne by the Contractor group, and Sonangol shall not be responsible to bear or repay any of the aforesaid costs and expenditures.[674]

This is derived from article 18 of the Petroleum Activities Law, which provides as follows:

> [t]he risk of investing in the exploration period shall be borne by the entities which associate themselves with the national concessionaire. These entities shall not be entitled to recover the capital invested in the event that no economically viable discovery is made.[675]

When production starts, the oil is divided up into different categories. Firstly, royalty oil accrues to the government. Second, a certain percentage of 'cost oil' is received by the members of the contractor group, and is earmarked to pay for their investments.[676] This

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[673] In terms of article 3 of the Model PSA '[t]he object of this Agreement is the definition, in accordance with Law No. 10/04, of 12 November 2004, and other applicable legislation, of the contractual relationship in the form of the Production Sharing Agreement between Sonangol and Contractor Group for carrying out the Petroleum Operations'. See http://www.eisourcebook.org/cms//files/attachments/policy-legal-contractual-regulatory/Angola%20-%20Model%20of%20PSA%202008.pdf (accessed 15 April 2013).

[674] Translated from Portuguese to English.

[675] Translated from Portuguese to English.

[676] See article 11 of the model PSA. See also Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 147.

can be up to 50 per cent of production.[677] The remainder is known as 'profit oil' and is shared between the IOCs, Sonangol and the government according to a complex tax structure.[678] This is a typical Norwegian carried-interest system of oil and gas regulation.

3.4 An Evaluation of the Key Features of the Norwegian Carried-Interest Model in Angolan Petroleum Law

The Angolan carried-interest system is evident from both the legislative provisions and the contractual arrangements, particularly the PSA.

3.4.1 Ownership of Oil and Gas in Angola

In terms of Angolan law, petroleum resources are the property of the state. Article 16 of the Angolan Constitution[679] stipulates as one of the fundamental principles of the State that all natural resources existing in the soil and subsoil, in internal and territorial waters, on the continental shelf and in the exclusive economic area, are the property of the state.[680] The state determines the terms under which the natural resources are used, developed and exploited.[681] Furthermore, the state promotes the protection and conservation of natural resources guiding the exploitation and use thereof for the benefit of the community as a whole.[682]

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[677] See *Global Witness* n 504 *supra* at 5. See also Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 147.

[678] See article 16 of the model PSA. See also Hodges n 501 *supra* at 55.

[679] The Angolan Constitution dated of 31 January 2010.

[680] See article 12(1) of the Constitution of Angola as amended through Law No. 12/91 of March 1991 (Constitutional Law of the Republic of Angola adopted on 25 August 1992).

[681] *Ibid.*

[682] See article 12(2).

The fundamental principle of state ownership of natural resources as enshrined in the Angolan Constitution was given effect in the already discussed General Petroleum Activities Act of 1978.[683] Prior to its amendment, this was the principal Act which regulated the exploitation of the country's petroleum resources in the upstream sector. The Amended Petroleum Activities Act of 2004, therefore, gives effect to the Angolan Constitution.[684]

3.4.2 Exclusivity of National Concessionaire

As an SOC or NOC and the exclusive national concessionaire in Angola,[685] Sonangol's principal mandate is to exercise its powers to secure, from the oil industry, maximum benefits for the state.[686] As concessionaire, Sonangol enters into partnerships with oil companies through various means including through direct stake holding in the form of a consortium, or a corporation, entering into PSAs or risk services contracts.[687]

The inspiration from the Norwegian carried-interest system is displayed in the fact that under the PSAs, IOCs serve as contractors to Sonangol E.P, finance the costs with the so called 'cost oil'.[688] After recovering costs, the IOCs and Sonangol E.P share 'profit oil'

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[683] See n 604 *supra*.

[684] Article 6 of the Constitution, as amended, provides that 'the State shall exercise its sovereignty over the territory, internal and territorial waters, air space, soil and sub-soil'.

[685] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 147.

[686] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 147.

[687] See article 14, read together with article 13 of the Petroleum Activities Law. See also Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 147.

[688] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 147.

on a sliding scale linked to the level of cumulative production or, in case of deep water blocks, the internal rate of return.[689]

Where Sonangol has a direct stake, it is responsible for raising its share of the capital for the development of new oil fields and also receives a share of production in accordance with the size of its shareholdings which must always be above 50 per cent unless permission for lower shareholding interest has been given by the MinPet.[690] However, where a PSA is used, Sonangol's share of investment in the oilfields development is 'carried' by its partners, for repayment later from revenue flows.[691]

From a comparative perspective, there are two main differences between the Angolan oil industry and that of Nigeria. First, unlike the Nigerian oil resources which are mainly onshore resulting in ethno-social conflicts (e.g. in the Niger-Delta), oil deposits in Angola are mostly offshore thus minimising the possibility of ethno-social or community-IOC conflicts.[692] Secondly, due to the carried-interests system as applicable in Angola, Angola has avoided the type of situation seen in Nigeria, where the shortage of capital on the part of the Nigerian National Petroleum Corporation (NNPC) has periodically held up investments.[693]

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[689] *Ibid*.

[690] *Ibid.*

[691] *Ibid.*

[692] According to Hodges, the petroleum sector in Angola is not merely an economic enclave in the sense that that there is a minimal linkage between the upstream and downstream sectors, but is it also both a geographical and social enclave in the sense that the upstream industry is located offshore and thus away from communities. See Hodges *Angola: Anatomy of an Oil State* n 501 *supra* at 150.

[693] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 147-148.

3.4.3 Evaluating the Sonangol Sole Concessionary Model: the Conflict of Interest

Sonangol is an important Angolan domestic company which earns for the government more than 90 per cent of its revenue.[694] It therefore has at its disposal, the financial means and human resources that no other branch of the administration in Angola has.[695]

Wholly owned by the Angolan government under Decree 19/99, the law of public companies, Sonangol is responsible for the exploration, production, manufacturing, transportation, and marketing of hydrocarbons in Angola. As an NOC, Sonangol has a complicated governance structure. De Oliveira refers to this structure as 'a constellation of worldwide business interests that could be termed the Sonangol "*Universo*"'.[696] This Sonangol *"Universo*" consists of a holding company called Sonangol EP or the Sonangol Group with several major subsidiaries.[697] These include Sonangol *Pesquisa e Produção*, for upstream activities; Sonangol *Distribuidora*, for downstream activities; Sonangol *Logistica*; Essa, a provider of professional training for the oil industry; Son Air, an air transport company catering to the oil industry that includes flights from Houston, Texas to Luanda; Mercury, a telecommunications group; Sonaship and Sonangol Shipping, two providers of maritime transportation; AAA, an insurance company described as providing 'risk management for the oil industry, insurance brokerage and pension fund management'; Sonangol USA, Sonangol Limited (UK), and Sonasia (Singapore), marketing and trading units; and the Hong Kong-based China Sonangol International Holding, which in November 2004 joined a Chinese-Argentine offer to invest up to US$5 billion in Argentine oil exploration.[698] All of these subsidiaries enjoy 'preferential

[694] See De Oliveira RS 'Business Success, Angola-style: Postcolonial Politics and the Rise and Rise of Sonangol' 45(4) (2007) *Journal of Modern African Studies* 595 at 603.

[695] *Ibid*.

[696] See de Oliveira n 702 *supra* at 604.

[697] *Ibid*.

[698] *Ibid*.

treatment …in the procurement of goods and services to oil companies operating in Angola'.[699]

With several JVs entered with a host of FOCs[700] as part of its 'Angolanisation' campaign,[701] Sonangol has, as De Oliviera notes, a good reputation and its name is highly respected amongst its African counterparts.[702] 'Despite international civil society criticism on the transparency, most Western banks and oil companies speak very well of Sonangol and report hassle-free interactions with the company'.[703] According to De Oliviera, 'from their [Western banks and oil companies] perspective, competence, predictability and a measure of mutual trust have long ago filled in for Sonangol's opaqueness'.[704]

However, as De Oliviera asks, the question is 'what, then, is the other side of the coin to this seemingly exemplary instance of a well-governed, successful developing-world state corporation?[705] He correctly indicates that the answer to this question is that Sonangol's undeniable competence and sophistication are not, and have never been, put at the service of Angolan development, however defined.

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[699] *Ibid*.

[700] These include Sonangol-Sinopec International (SSI), which recently paid a record US$2.2 billion for a 40 per cent controlling stake in parts of offshore oil blocks 17 and 18 (Africa Confidential 7.7.2006); 32 Sonangol SGPS, a drilling services company; Sonasing, a joint-venture service company for the packaging and storage of crude; Wapo Angola, a services provider for the oil industry; Technip Angola, Petromar, Sonamet, Sonansurf and Sonamer, oil services companies; AngloFlex, a manufacturer of umbilicals and pipelines for underwater production systems in the oil and gas industry; the *Banco Africano de Investimento,* a bank; and many others. See De Oliveira n 702 *supra* at 604.

[701] *Ibid*.

[702] *Ibid*.

[703] *Ibid*.

[704] *Ibid*.

[705] *Ibid*.

Sonangol has two roles in the oil industry in Angola, namely it is both a concessionaire and an oil company. Sonangol's role of equity partner in petroleum exploitation and as concessionaire is therefore conflicting. It performs both the roles of regulator, as concessionaire, and commercial entity, as an oil company. It is therefore a player and referee at the same time and this gives rise to a conflict of interests. The conflicting roles of Sonangol as both the regulator and as a player in the oil industry, has been identified by Lwanda as one of the shortcomings of Sonangol.[706] De Oliviera also noted that 'the conflicting roles of concessionaire, equity partner, and operator would by themselves be the source of plenty of conflicts of interest'.[707]

The issue of Sonangol as a sole concessionaire is not unique in the petroleum sector in the world.[708] For instance, in Indonesia, Pertamina, like Sonangol, was the appointed

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[706] See Lwanda GC 'Oiling Economic Growth and Development: Sonangol and the Governance of Oil Revenues in Angola' a Working Paper (Series No.21) of the *Development Bank of Southern Africa*, p 14.

[707] See De Oliveira 'n 702 *supra* at 608.

[708] Other countries with a sole concessionary system include Malaysia and Egypt. For instance the Malaysian NOC, *Petroleam Nasional Behard* (Petronas), the only remaining wholly state owned enterprise in Malaysia, holds exclusive ownership rights to all exploration and production projects in Malaysia, and all foreign and private companies must operate through PSCs with the NOC. It is therefore also a sole concessionaire. See http://www.globalsecurity.org/military/world/malaysia/energy.htm (accessed 17 April 2013). In 2003 the then CEO of Petronas, Hassan Marican stated, 'We are different from other national oil companies to the extent that we own our national reserves. We are the sole concessionaire of our nation's petroleum reserves, quoted by von der Meheden *et al* "Petronas: A National Oil Company with an International Vision', available at http://www.bakerinstitute.org (accessed 17 April 2013) p 23-24. Also in Egypt, *GANOPE* (Ganoub El-Wadi Holding Petroleum Company), the Egyptian NOC, has an exclusive concession for the exploration and exploitation of petroleum in and throughout the area referred to in article 2, of the Egyptian Model Concession Agreement.

concessionaire and it also engaged directly in the production and the provision of various contracting services.[709] However, as a *KPMG Report* notes,

> recently, decisions have been taken in Indonesia to clearly separate these functions with the intention that Government will become the regulator. The reason for this was due to increasing difficulty in accounting for its ever-growing range of complex activities and lack of resulting transparency. In Norway, too, there is a powerful state company, Statoil. It, essentially, functions as an oil company. The detailed regulatory work is undertaken by a separate body, the Norwegian Petroleum Directorate. Transparency is, therefore, assured due to the clear segregation of responsibilities.[710]

One must therefore agree with the *KPMG Report* when it states that 'it is vital that for efficient and transparent operations that Sonangol's dual roles are separated. Segregation of activities will also make it easier for Sonangol to account more accurately for its oil and gas activities'.[711] The report 'recommend[s] that the government separate[s] the dual functions of Sonangol with the intention that the government becomes the Concessionaire and regulator'.[712] This would be in accordance with the Norwegian model of separation of functions between policy development, industry regulation, and commercial operations.[713] The so-called 'separation of functions models' originates from Norway and hence the phrase 'Norwegian model'. In terms of this model, the policy, regulatory, and commercial functions in the petroleum sector are formally separated. In Norway petroleum resources are administered by three distinct government bodies, namely a national oil company (Statoil), which is engaged in commercial hydrocarbon operations; a government ministry, the Ministry of Petroleum

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See the Preamble of this agreement and article 3 of the Egyptian Model Concession Agreement, available at http://www.ganope.com/Pages/2012-01Model.pdf (accessed 17 April 2013).

[709] See the *KPMG Report* n 525 *supra* at p 23.

[710] *Ibid*.

[711] *Ibid*.

[712] *Ibid*.

[713] See n 456 *supra*.

and Energy, which is responsible mainly for policy development; and a regulatory body, the NPD, which provides oversight and technical expertise.[714]

Another Sonangol shortcoming is its weak corporate and economic governance,[715] including poor accounting practices; and flawed oil revenue management. Tasked with a variety of quasi-fiscal activities,[716] free supply of fuel to certain agencies, which are paid from oil profits and transferred to the Treasury, Sonangol does not explicitly disclose these activities in its financial statements.[717] The amounts of signature bonuses received by Sonangol from FOCs on the award of a concession are also largely undisclosed, even though they range in the billions.[718] The amounts paid by oil companies as contributions for social projects as per their PSAs also remain largely undisclosed.[719]

Lastly Sonangol's political patronage or close links to the presidency[720] has frequently been cited as a cause for concern. Sonangol has always been primarily at the control and service of the Angolan presidency and its rentier ambitions.[721] As De Oliviera notes,

> …the company [Sonangol] is the pivotal tool for the interests of the presidential clique known as the *Futungo de Belas*. The *Futungo*, a nebulous group of unelected officials and businessmen around President Eduardo dos Santos, became the key structure of

[714] See, in this regard, Thurber *et al* n 417 *supra*.

[715] *Ibid*.

[716] See the *IMF* n 574 *supra* at 11.

[717] For example, the 2010 budget includes US$9.8 billion to cover the 'general subsidisation and free supply of retail petroleum products to select agencies'. It is these quasi-fiscal expenditures that account for the missing US$32billion, as reported by the IMF in its December 2011 Report. See Ramos n 578 s*upra* at 23.

[718] For example, industry media reported that in 2006 Petrobras paid US$50 million for oil block 26, while Petrobras paid US$1.1 billion for oil block 18 and Total also paid US$1.1 billion for oil block 17. See Ramos n 578 *supra* at 23.

[719] *Ibid*.

[720] *Ibid*.

[721] See De Oliveira n 702 *supra* at 595.

> power in the 1980s, in tandem with the relative sidelining of MPLA party organs and formal state structures. Sonangol essentially exists to harness and further their agenda.[722]

He continues by indicating that-

> from the mid-1980s, when a dip in oil prices led Angola to borrow from Western banks against future oil production for the first time, Sonangol has been the centrepiece of the presidency's vast system of parallel finances that has included up to half of Angola's yearly oil revenues.[723]

3.4.4 Methods of Acquiring Rights to Oil and Gas Resources

In terms of article 4 of the Petroleum Activities Act, hydrocarbon mining rights shall be granted to the national concessionaire under the terms of article 44. As indicated earlier, the principle of exclusive national concessionaire, therefore, applies in Angola. The national concessionaire in Angola is Sonangol.[724] Sonangol is the sole concessionaire of hydrocarbon mining rights.[725] As indicated earlier, FOCs which desire to perform exploration and production activities can only do so in association with Sonangol. The forms of association shall be by means of a commercial company, a consortium, or through a PSA.

Petroleum operations[726] may only be carried out under a prospecting license or petroleum concession in accordance with this Act.[727] Prospecting licenses are issued by

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[722] See De Oliveira n 702 *supra* at 606.

[723] *Ibid*.

[724] See article 4 of the Petroleum Activities Law.

[725] 'Mining rights' is defined as the set of powers granted to the National Concessionaire. See article 2 of the Petroleum Activities Law.

[726] 'Petroleum Operations' is defined as the activities of prospecting, exploration, appraisal, development and petroleum production, carried out under this law. See article 2 of the Petroleum Activities Law.

[727] See article 6 of the Petroleum Activities Law.

the supervising Minister.[728] The granting of concessions for the exercise of mining rights is, however, the responsibility of government. Therefore, although Sonangol is the sole concessionary, the resources remain vested in the state which may or may not grant concessions to Sonangol.

3.4.4.1 Prospecting Licenses

Any Angolan or an FOC may apply to the Minister for a prospecting license in order to evaluate the petroleum potential of a given area. However, such a company must be of recognised capacity, technical knowledge, and financial capability.[729]

Applications for prospecting licenses are submitted to the Ministry, accompanied by documentation showing the capacity, and the technical and financial capability of the applicant, under the provisions of article 45.[730] The application must, in addition to other information which the applicant deems relevant for the purpose, clearly state the objectives, the intended area, technical, and financial resources and the provisional budget.[731] The application must be accompanied by payment of a fee to be set by the relevant body pursuant to applicable law.[732]

Applications must be reviewed by the Ministry, after receiving the recommendation of the national concessionaire.[733] Therefore Sonangol plays a role in this process. The Ministry may, in addition to this recommendation, request further information on the terms of the application, from the applicant.[734] After reviewing the application and

[728] See article 8 of the Petroleum Activities Law.

[729] See article 34 of the Petroleum Activities Law.

[730] See article 37(1) of the Petroleum Activities Law.

[731] See article 37(2) of the Petroleum Activities Law.

[732] See article 37(3) of the Petroleum Activities Law.

[733] See article 38(1) of the Petroleum Activities Law.

[734] *Ibid.*

hearing the applicant, the Minister must decide on the application.[735] When the Minister has issued his consent order, the supervising Ministry shall issue the prospecting license and the relevant fee must be paid under applicable law.[736] The Ministry must duly publicise the prospecting licenses awarded by it, together with the contents of the same.[737]

3.4.4.2 Concessions

The national concessionaire may not wish to associate itself with any other entity in the exploitation of oil and gas resources in a given area. In the event of this, the government may, at the request of the national concessionaire, award the national concession the concession directly by publication, in the official gazette, of the relevant concession decree.[738]

Should the national concessionaire wish to associate itself with other entities, in order to carry out petroleum operations in a given area jointly, the concession shall be granted by means of a concession decree and shall be deemed effective on the date referred to in article 12, sub-paragraph 7(b).[739] In this case the national concessionaire must apply to the Ministry for due authorisation to carry out an open tender.[740] This open tender serves to define the entities with which the national concessionaire shall associate.[741] The application for due authorisation must be accompanied by the draft terms of reference for the tendering process.[742]

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[735] See article 38(2) of the Petroleum Activities Law.

[736] See article 38(3) of the Petroleum Activities Law

[737] See article 38(4) of the Petroleum Activities Law.

[738] See article 44(1) of the Petroleum Activities Law.

[739] See article 44(2) of the Petroleum Activities Law.

[740] See article 44(3) of the Petroleum Activities Law.

[741] *Ibid.*

[742] *Ibid.*

The status of associate of the national concessionaire may also be awarded through direct negotiation with the interested companies. This is, however, possible only in certain cases, namely:

(a) immediately following an open tender procedure which has not resulted in the awarding of the status of associate of the national concessionaire because of the lack of bids; and

(b) immediately following an open tender procedure which has not resulted in the awarding of the status of associate of the national concessionaire due to the Ministry, after consulting with the national concessionaire, considered the submitted bids unsatisfactory in view of the adopted criteria for the award.[743]

In the event of receiving a proposal for direct negotiations under the preceding paragraph, if the supervising Ministry decides to go ahead with the award of the petroleum concession, the national concessionaire shall declare the same through a public notice, and may commence direct negotiations with the company involved if, within fifteen days from the date of the notice, no other entity declares an interest in the area in question.[744]

3.4.4.3 Bid Procedures

If other entities declare an interest in the same concession area, a tender shall be held limited to the interested companies.[745]

3.4.4.4 The Open Tender Procedures

[743] See article 44(4) of the Petroleum Activities Law.

[744] See article 44(5) of the Petroleum Activities Law.

[745] See article 44(6) of the Petroleum Activities Law.

The open tender procedures for the award of the status of associate of the national concessionaire shall be established by regulations to be approved by the government within sixty days from the effective date of the Petroleum Activities Law.[746]

3.4.4.5 The Direct Negotiation Regime

Any entity of proven capacity and technical and financial capability may apply to the national concessionaire for the award of the status of associate of the national concessionaire, through direct negotiation. This must be submitted by the national concessionaire, which shall issue its own recommendation to the Minister, for the purpose of deciding whether or not to start the relevant negotiations. If the Ministry finds that there is still only one entity interested in acquiring the status of associate of the national concessionaire, it may decide to start the direct negotiation process.[747]

3.4.5 The Legal Nature of the Right to Oil and Gas Resources

A prospecting right entitles a holder thereof to a set of operations to be carried out onshore or offshore, through the use of geological, geochemical or geophysical methods, with a view to locating petroleum deposits, excluding the drilling of wells, the processing, analysis and interpretation of data acquired from the respective liftings or of the information available in the archives of the Ministry, or the national concessionaire, as well as regional studies and mapping leading to an appraisal and better knowledge of the petroleum potential of a given area.[748]

[746] See article 46 of the Petroleum Activities Law.

[747] See article 47 of the Petroleum Activities Law.

[748] See article 2(19) of the Petroleum Activities Law.

3.4.6 The Transferability and Revocation of Rights

As a result of the principle of exclusive national concessionaire, Sonangol is prohibited from partially or fully transferring its mining rights.[749] Any action to that effect (of partial or full transfer of mining rights) is deemed to be null and void.[750]

3.4.7 Assignment

In terms of article 16 of the Petroleum Activities Law, the associates of the national concessionaire may only assign part or all of their contractual rights and duties to third parties of recognised capacity, technical knowledge and financial capability, after obtaining the prior consent of the Minister by means of an executive Decree. This assignment is not required for an assignment between affiliated companies, provided that the assignor remains jointly and severally liable for the duties of the assignee. In accordance with this section, the transfer to third parties of shares representing more than 50 per cent of the share capital of the assignor shall be equivalent to the assignment of contractual rights and duties. The relevant assignment contracts shall be submitted to the national concessionaire for its prior approval. The national concessionaire has the rights of first refusal if the assignee is a non-affiliate of the assignor.

3.4.8 Government Participation

As Sunley and others indicate,

[749] See article 5 of the Petroleum Activities Law.

[750] *Ibid.*

> [a] government may…participate more directly in an oil and gas project by taking equity in the project. State equity can take several forms, including: (i) a full working interest—paid-up equity on commercial terms, which places the government on a par with a private investor; (ii) paid-up equity on concessional terms, where the government acquires its equity share at a below-market price, possibly being able to buy into the project after a commercial discovery has been made; (iii) a carried interest, where the government pays for its equity share out of production proceeds, including an interest charge; (iv) tax swapped for equity, where the government's equity share is offset against a reduced tax liability; (v) equity in exchange for a non-cash contribution, for example by the government providing infrastructure facilities; and (vi) so-called "free" equity, which is a bit misleading since even the non-cash provision of equity usually results in some, more or less transparent, off-setting reduction in other taxes.[751]

State or government participation in the oil and gas exploration, development and production in Angola is in the form of 'carried-interest' or 'carried-equity participation',[752] which is an essential element of the Norwegian model, as discussed earlier.

Under this model, the IOC, therefore, 'carries' or pays of its host government partner, in the form of NOC, through the early stages of a project, namely exploration, appraisal, and possibly even development.[753] After this, the NOC spends *pari passu* with the IOC, similar to the full equity participation.[754] Although generally under the 'carried-interest' system, the IOC may (but need not) be compensated, with or without interest, in Angola

[751] See Sunley EM, Baunsgaard T & Simard D 'Revenue from the Oil and Gas Sector: Issues and Country Experience', a background paper prepared for the IMF conference on fiscal policy formulation and implementation in oil producing countries, June 5-6, 2002, available at http://siteresources.worldbank.org/INTTPA/Resources/SunleyPaper.pdf (accessed 02 April 2011),p 9-10.

[752] See McPherson n 474 *supra* at 6.

[753] See McPherson n 474 *supra* at 18.

[754] See McPherson n 474 *supra* at 7.

it is not compensated at all. Thus the IOC fully 'carries' or bears the cost of investment. This system is clear from the Petroleum Activities Law and the model PSA in Angola.

As discussed earlier, article 18 of the Petroleum Activities Law provides that companies which operate in association with the national concessionaire shall bear the risk of exploration. Those companies are not entitled to recover the capital invested in the exploration activities in the event that no economically viable discovery is made.[755]

Similarly, article 10 of the model PSA provides that the costs and expenditures incurred in the petroleum operations, as well as any loss and risks derived therefrom shall be borne by the contractor group, and Sonangol shall not be responsible to bear or repay any of the aforesaid costs and expenditures.[756]

3.4.9 Legal Reforms

The most recent legal reforms are the adoption of the new constitution in 2010[757] which is proclaimed in the preamble as 'the supreme and fundamental law of the Republic of Angola'.[758] In terms of article 3(2) of this Constitution, the state exercises its sovereignty over all Angolan territory which includes its land, interior and territorial waters, air space, soil and sub-soil, seafloor and associated sea beds. Furthermore, article 3(3) provides that the state exercises jurisdiction and rights of sovereignty over the conservation, development and use of natural, biological, and non-biological resources in the

[755] See article 18 of the Petroleum Activities Law.

[756] Translated from Portuguese to English.

[757] The Constitution of the Republic of Angola, seen and approved by the Constituent Assembly on 21 January 2010, available at www.comissaoconstitucional.ao (accessed 20 April 2013).

[758] See also articles 6(1) and (2) of the Constitution which makes provision for the supremacy of the Constitution and the rule of law.

contiguous zone, the EEA and on the continental shelf, under the terms of the law and international law. Article 39(2) requires the state to take the requisite measures to protect the environment and species of flora and fauna throughout the national territory, maintain the ecological balance, ensure the correct location of economic activities and the rational development and use of all natural resources, within the context of sustainable development, respect for the rights of future generations and the preservation of species. In terms of article 39(3) all acts that endanger or damage conservation of the environment shall be punishable by law.

The most important provision though is article 16 which deals specifically with natural resources and basically makes provision for state ownership of natural resources as follows:

> [t]he solid, liquid and gaseous natural resources existing in the soil and subsoil, in territorial waters, in the exclusive economic zone and in the continental shelf under the jurisdiction of Angola shall be the property of the state, which shall determine the conditions for concessions, surveys and exploitation, under the terms of the Constitution, the law and international law.

As demonstrated earlier, this Constitution was preceded by the repeal of the 1978 General Petroleum Activities Law (Law 13/78, of 26 August, 1978) by the 2004 Petroleum Activities Law (Law 10/04 of 12 November 2004), which came into effect on 16 November 2004 in Luanda, and on 27 November 2004 in other provinces. As indicated, the purpose of the new law is to consolidate in a single statue the principles that flow from the previous Petroleum Law, the existing concession decrees and exploration and production contracts as well as the industry practice developed throughout the years in Angola. The main changes include the significant expansion of the regulatory powers or responsibilities of MinPet. These include MinPet's right to mandate the allocation of facilities/equipment from one concession to another

concession, and to unilaterally change scheduled production rates and mandate production volumes.

Before its enactment, the new draft Petroleum Law had been circulated at a senior level in government and within the National Assembly. The law was drafted to reflect new concepts and practices in international and Angolan petroleum law. Viewed holistically, the new law retains the discretionary licensing system.

3.5 Conclusion

Angola's has a massive petroleum resources endowment. These resources are also largely immune from the internal conflict inland as they are mostly situated offshore. The upstream petroleum industry is therefore growing rapidly in Angola and this could potentially result in a strong GDP. However, the Angolan oil and gas sector faces several challenges. Angola depends heavily on oil and gas resources to the exclusion of other industries. This has resulted in an acute case of the 'Dutch-desease', which occurs when a resource boom (such as oil) causes real exchange rates to rise and labour and capital to migrate to the booming sector, thus basically pushing the previously productive sectors to the periphery. The overdependence on oil and gas also results in the so-called 'resource curse' which is basically the paradox between massive natural resources endowment and extreme poverty. Angola's great wealth and rapid growth, combined with extremely poor social outcomes suggest that it is suffering from the 'resource curse'. Due to political patronage and the dual financing system involving Sonangol, corruption is also very prevalent in Angola, whilst the judiciary remains politically dependent and weak and will not be trusted to resolve any potential dispute.

The legal framework for upstream petroleum exploitation in Angola is made up the constitution and several pieces of legislation, with Petroleum Activities Law of 2004 as

the principal legislation in this regard. These are complemented by PSCs and service contracts. This legal framework makes provision for prospecting licences and concessions which are basically awarded by Sonangol through open tenders or bidding.

It was as a result of Norway's assistance through the OfD initiative, which seeks to develop legal frameworks to govern petroleum exploration and production; open bid and tendering processes; and transparency about licenses and contracts, that Angola's Petroleum Activities Act of 2004 was drafted. Through this special legislation governing petroleum development activities, which contains provisions enabling its government to negotiate with petroleum businesses on essential contractual matters, Angola has, similar to Norway, adopted a hybrid system to regulate upstream petroleum activities. This hybrid regulatory framework therefore consists of the special petroleum law and several contractual arrangements or HGCs such as PSAs and service contracts. The Angolan hybrid regulatory system is characterised by the carried-interest system, which is an essentially Norwegian model of oil and gas regulation. The general Norwegian petroleum framework covering the Petroleum Activities Act and its Regulations, the different licences and the criteria for awarding licences were briefly outlined in this chapter to prove a proper context to the discussion of Angola's adoption of the carried-interest model. A brief evolution of the carried-interest system in Norway from its introduction in Norway as a provision for government participation in the licences granted in 1969, when the first petroleum discovery was made, through to its reinforcement by the Norwegian government policy in 1971, the creation of Statoil as a vehicle for state participation in 1972 through the carried-interest system, was made in this chapter. In a nutshell under the carried-interest system, the government's potential interest is 'carried' during the exploration phase by the licensee and when petroleum is discovered, the government has an option to participate. If the government exercises that option, it must then contribute at least part of the costs.

Key features of the carried-interest model were distilled. These includes state ownership of petroleum resources; the exclusivity of the national concessionaire which results in conflict of interest between Sonangol as a both a regulator and as a commercial player. This necessitates the separation of functions between regulation and commercial entity and Sonangol should only perform one and not both of these functions.

Angola's adoption of a hybrid regulatory system is lauded for being flexible to accommodate different circumstances and contexts. The laws are in accordance with international practice as they cater for issues such as state ownership of petroleum resources *in situ*;[759] and modern contractual and fiscal regimes.

Angola could learn some lessons from Norway. As Cappellen and Mjøset conclude, the Norwegian government has extensively controlled the management of natural resources.[760] As they indicate,

> this has been the case with the two energy resources of the twentieth century (waterfalls and oil), but also with 'older' resources such as the fishery resources at sea. Management of resources—in terms of collecting information about their size and change, how to organize exploration and control the production of both renewable and non-renewable resources—is vital if economic benefits are to be harvested on a sustainable basis. There have been policy errors in Norway on several occasions, but there has also been policy learning that has led, over time, to improved resource management.[761]

[759] See n 388 *supra*.

[760] See n 440 *supra* at 20.

[761] *Ibid*.

Secondly in Norway the central government is the major earner of benefactor of the rents from natural resources exploitation,[762] and this is particularly the case with regard to petroleum extraction. Cappellen and Mjøset argue that funding government expenditures by rents or by capital income from financial investments based on these rents will improve economic efficiency compared to alternative sources of financing.[763]

Another important policy suggested by Cappellen and Mjøset is the creation of linkages between natural resource extraction and the rest of the economy thus integrating petroleum extraction with the rest of the economy and thus leading to-

> industrial development connected to the production of semi-manufactured goods (canning industry, paper and pulp, metal products and chemical products). Backward linkages have implied the development of manufacturing production of capital equipment (shipping industry, turbines, transmitting equipment, as well as oil rigs, seismic instruments and so forth). The state's own activities have even implied fiscal linkages. Although there clearly have been periods of de-industrialization due to the growth of the resource-based industries, these industries have also been instrumental in stimulating the advancement of manufacturing in certain areas. There is really no reason why resource extraction per se cannot lead to the development of a manufacturing sector that is characterized by learning, spill overs and the scale economies that are usually considered the core of a modern knowledge economy.[764]

Norway gradually moved away from spending the permanent income of the resource to spending only the income from a financial fund financed by accumulated resource incomes in order to give a much more stable fiscal policy than one that was more strongly influenced by current prices, since the latter affects, to a large degree, expectations of future prices.[765]

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[762] *Ibid*.

[763] *Ibid*.

[764] *Ibid*.

[765] *Ibid*.

Most importantly structural or institutional frameworks are desirable for the improved management of natural resources and, as discussed earlier, the Norwegian separation of functions model provides a good lesson to Angola which has Sonangol performing both regulatory and commercial roles thus leading to conflict of interest.

CHAPTER 4
OIL AND GAS LAW IN NIGERIA: THE BRITISH DISCRETIONARY ALLOCATION MODEL

4.1. Introduction

This chapter focuses on the legal framework for the regulation of oil and gas exploration and production in Nigeria. Similar to Angola, Nigeria has adopted a 'hybrid (or flexible) system', rather than a 'general legislation system', or an 'agreement system',[766] for the regulation of oil and gas exploration and production. This system, which combines elements of the general legislation system and the agreement system, is most popular among several countries in the world, including Nigeria, which has adopted it as early as 1969. As explained in the previous chapter, under the hybrid system, legislation lays down general guidelines and conditions to be satisfied by the applicants seeking to acquire exploration rights, but provides for certain important terms and conditions to be settled by negotiation.[767]

Since 1969, Nigeria has been utilising a general legislation in the form of the Petroleum Act of 1969,[768] for the regulation of oil and gas exploration and production. This Act makes provision for oil exploration licenses (OEL), oil prospecting licenses (OPL), and oil mining leases (OML) to be obtained by making an application to the Minister of Petroleum Resources. In addition to this general legislation, Nigeria has also adopted an agreement system, or contractual arrangements, under which oil and gas exploration and production may be undertaken.[769] These contractual arrangements, for which model

[766] See Atsegbua n 42 *supra* at 12.

[767] *Ibid*.

[768] See the Petroleum Act (Chapter 10) (Chapter 350 LFN 1990) Laws of the Federal Republic of Nigeria, first promulgated in 1969, as amended by the Petroleum Act Cap. p10 Laws of the Federation of Nigeria (LFN) 2004.

[769] *Ibid*.

clauses exist, serve to ensure state participation in the exploitation of oil and gas resources in Nigeria. In other words, through contractual arrangements, the Nigerian government, through its NOC, the Nigerian National Petroleum Company (NNPC), participates in the exploration and production of oil and gas together with some or MOCs. The contractual arrangements, which are open to public bidding when announced by the government, include JVs, PSCs, and service agreements.[770]

Nigerian law allows licences to be granted to companies by direct negotiation in what is commonly known as discretionary allocations,[771] which is essentially a British licensing model. Under the British discretionary allocation system,[772] licenses are allocated primarily on the basis of the size of the applicant's proposed work programme. The reason for this is that in many cases, the applicants involved are MOCs, so that the main stimulus to the economy involved comes from the associated construction phase of each development.[773] Other discretionary criteria that could be utilised include the applicant's technical, financial, and management capacity.[774] In addition, applicants will typically be required to pay a royalty on extracted resources over the lifetime of the

[770] *Ibid.*

[771] However, as a result of the abuse of the discretionary allocation system and its commitment to a transparency policy, the Nigerian government started adopting tenders as the preferred mode for the award of licences. See Biobaku G & Ogun Y 'Investing in Nigeria's Oil and Gas Industry' available at http://www.gbc-law.com/investing_in_Nigeria_OndG%20Industr.pdf (accessed 12 December 2011).

[772] See Bunter n 39 *supra* at 97; Dam n 45 *supra* at 34; Fraser n 331 *supra* at 271; Fraser R 'Lease Allocation Systems, Risk Aversion and the Resource Rent Tax' 42(2) (1998) *The Australian Journal of Agriculture and Resources Economics* 115; Kretzer n 331 *supra* at 299; Kretzer UMH 'Exploration prior to Oil Lease Allocation: a Comparison of Auction Licensing and Allocations based on Size of the Work Programme' (1994) 20(4) *Resources Policy* 235; and Gaille SS 'Allocation of International Petroleum Licenses to National Oil Companies: Insights from the Coase Theorem' 31 (2010) *Energy Law Journal* 111 at 116.

[773] See Fraser n 331 *supra* at 271.

[774] See Bunter n 39 *supra* at 87.

mine.[775] This system, which is based on optimal proposed work programme, is different from the auction system which is utilised mainly in the USA. In terms of the auction system, licenses are allocated to the applicant company with the highest bid (optimal bid) and a royalty on extracted resources is paid to the government involved.

As an example of the discretionary allocation system in the UK, the government allocates blocks on the United Kingdom Continental Shelf (UKCS) based primarily on the size of the applicant company's work programme (typically seismic and drilling programme proposed by the bidder). In line with the discretionary allocation system,[776] the licensing authority, therefore, allocates licenses according to administratively or politically created criteria. Licenses are granted to an applicant on the basis of the discretion of the licensing authority, taking into consideration certain predetermined criteria, such as the applicant's financial capability, technical know-how, and environmental consciousness. The granting of licenses in this system depends heavily on the discretion of the regulating authority.

The criteria used in discretionary allocation cannot be generalised. It differs from country to country,[777] or even from one licensing round to another licensing round in the same country. For instance, the licensing authority might prefer to pick the most efficient companies, or as is the case in Britain, prefer domestic companies to foreign companies ('preference for British companies in licensing rounds');[778] or prefer companies that promised to explore at the most rapid rate,[779] or as in Nigeria, preference to companies

[775] See Fraser n 331 *supra* at 271; Fraser n 780 *supra* at 115; Dam n 45 *supra* at 5; Kretzer n 331 *supra* at 299; & Kretzer n 780 *supra* at 235.

[776] See Dam n 45 *supra* at 4.

[777] See Dam n 45 *supra* at 7.

[778] See Richardson CF 'The Influence of Offshore Leasing Regimes on Commercial Oil Activity: An Empirical Analysis of Property Rights in the Gulf of Mexico and the North Sea' 17 (2004) *Georgetown International Environmental Law Review* 97 at 105.

[779] See Dam n 45 *supra* at 7.

that make a 'commitment to invest in [local] downstream and infrastructure projects'.[780] Worse, as Dam imagines, there could also be countries in which government officials would pick the companies that offered the largest bribes.[781]

In this chapter, the complex hybrid or flexible Nigerian licensing arrangement, including the key regulatory and contractual arrangements, will be critically analysed. In order to put this analysis in its proper context, it is essential to briefly explore the British petroleum regulatory framework with its discretionary allocation system as this is the model that shapes the Nigerian regulatory system. Then an analysis of Nigeria's hybrid regulatory framework for petroleum exploration, exploitation, development, and production is conducted. This covers both the legislative and contractual framework for upstream oil and gas exploitation. The current Nigerian legal reforms are also briefly highlighted. Lastly a brief historical overview of the evolution of the oil industry in Nigeria and the socio-economic and socio-political challenges are highlighted.

4.2. The British Petroleum Regulatory Framework

Drilling for petroleum in Britain started between 1917 and 1920.[782] The UK, therefore, has a relatively long licensing history. As Tordo and others indicate, the introduction of

[780] See Wong L 'The Impact of Asian National Oil Companies in Nigeria' *Nigerian Muse* (05 January 2009), available at http://www.ocnus.net/artman2/publish/Analyses_12/The_Impact_Of_Asian_National Oil_Companies_In_Nigeria_printer.shtml, (accessed 10 October 2012). See also Vines A *et al* 'Thirst for African Oil: Asian National Oil Companies in Nigeria and Angola' A Chatham House (the Royal Institute of International Affairs) Report August 2009 at 1, available at http://www.voltairenet.org/IMG/pdf/Thirst_for_African_Oil.pdf (accessed 20 August 2011).

[781] See Dam n 45 *supra* at 7. For instance, in 1999, TotallFinaElf, ExxonMobile & BP reportedly paid a total of $870 million to the Angolan government in signature bonuses, which is cash payments made upfront upon signing a petroleum contract. See McMillan J 'Promoting Transparency in Angola' 16(3) (2005) *Journal of Democracy* 155 at 158.

[782] See Daintith n 82 *supra* at 205.

the licensing regime in the UK was triggered by the fuel demands of the First World War.[783] However, the first onshore license was only issued in 1935. Offshore licensing began with the North Sea boom of the 1960s.[784] The then Ministry of Power issued the first offshore license in 1964, and by 2007 its successor, the Department of Trade and Industry, had issued approximately 1,500 licenses.[785]

On average the award rate or the percentage of applications that were approved by the Minister for the period 1964-2007 is 91 per cent.[786] Tordo and others are of the opinion that the relatively high award rate would seem to indicate that work program proposals and the technical and financial capability of the applicants were considered adequate by the regulator in the vast majority of cases.[787] Although licenses are generally awarded on the basis of work program bidding, a relatively small number of blocks have been awarded on a cash bonus basis (4th, 8th, and 9th licensing rounds).[788] These blocks were in relatively mature areas where lower-risk and better exploration prospects were expected to command a premium. In addition, a few blocks were awarded on a flat-fee

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[783] See Tordo S *et al* 'Petroleum Exploration and Production Rights: Allocation Strategies and Design Issues' *World Bank Working Paper* No. 179 of 2009 at 63, available at http://siteresources.worldbank.org/EXTOGMC/Resources/allocation_of_petroleum_rights_tordo.pdf (accessed 04 November 2011).

[784] *Ibid*.

[785] *Ibid*.

[786] *Ibid*.

[787] The transparency of the award system has been recently improved. Potential applicants for licenses receive information from the Department of Energy and Climate Change (DECC) (formerly the Department for Business, Enterprise and Regulatory Reform (BERR)), on the —mark scheme criteria that will be used to assess applications. In addition, the work programs of successful applicants are published, and unsuccessful applicants can request more detailed feedback on the evaluation of their proposals. See http://www.decc.gov.uk/ (accessed on 04 August 2011).

[788] See Tordo *et al* n 791 *supra* at 64.

basis (7th licensing round).[789] The up-take rate for cash bonus blocks were much higher than work program blocks, possibly reflecting the relative attractiveness of the blocks.[790] However, compared to work program blocks, the number of bidders per block was relatively low— two to three bidders per block on average.[791]

4.2.1. The Regulatory Framework

Petroleum legislation in the UK consists of both Acts (formal laws) and subsidiary legislation in the form of implementing and supplementary Regulations made under such Acts.[792] The principal Act governing the development and production of hydrocarbons in the UK is the Petroleum (Production) Act, 1998, as amended.[793] Initially petroleum was regulated under the Petroleum (Production) Act, 1918, and then by the Petroleum (Production) Act, 1934, supplemented by the Continental Shelf Act, 1964, in respect of the UKCS.[794] As Dam indicates, the Continental Shelf Act made certain sections of the Petroleum (Production) Act applicable to continental shelf licences and added a number of new provisions directed at particular problems raised by oil and gas production at sea.[795]

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[789] *Ibid*.

[790] *Ibid*.

[791] *Ibid*.

[792] See Traverne n 82 *supra* at 48.

[793] Other legislation regulating petroleum operations, which are beyond the scope of this study, include the Petroleum and Submarine Pipelines Act 1975 (concerning the use and construction of submarine pipelines); the Oil and Gas (Enterprise) Act 1982; the Gas Act 1986 (concerning the supply of gas in Great Britain through pipes); the Petroleum Act 1987 (concerning the abandonment of offshore installations and pipelines on land); and the Mineral Workings (offshore Installations) Act 1971.

[794] See Anenih O 'The UK Petroleum Production Licence – Is it a Contract or Regulation and Does it Matter?' at 1, available at http://www.dundee.ac.uk/cepmlp/car/assets/images/Omon.pdf (accessed 10 October 2011). See also Dam n 45 *supra* at 23.

[795] See Dam n 45 *supra* at 23.

Subsidiary legislation, in the form of Regulations, for petroleum operations are made under both the Petroleum (Production) Act 1934 and the Continental Shelf Act, 1964.[796] These Regulations provide model clauses for incorporation into petroleum licences.[797] It is important to note that once a license has been granted, the terms of such a license cannot be unilaterally amended without a statutory enactment which provides for an amendment of model clauses incorporated in such a license.[798] However, new regulations can amend or entirely replace foregoing Regulations, but they cannot change the terms and conditions of licenses granted under these Regulations.[799]

4.2.1.1. The Petroleum (Production) Act 1934 and the Continental Shelf Act

It was only in 1918 that the ownership of petroleum to be found naturally in strata beneath the land in Great Britain was regulated statutorily or by the common law.[800] In 1918 the Petroleum (Production) Act came into operation within the UK. This Act prohibited anyone other than the Crown (or someone licensed under that Act) from searching or boring for or getting petroleum within the UK.[801] If an unauthorised person did so, he would forfeit to the Crown a sum equal to three times the value of petroleum he obtained without such authority.[802] Section 2 of the 1918 Act empowered the then Minister of Munitions to grant licences to search and bore for and get petroleum. The 1918 Act was repealed by the Petroleum (Production) Act 1934.

[796] See Traverne n 82 *supra* at 48.

[797] *Ibid*.

[798] *Ibid*.

[799] *Ibid*.

[800] See *Bocardo SA v Star Energy Onshore Ltd* (CA) (2009) 3 WLR 1010 at para 15.

[801] Section 1 of the 1918 Act.

[802] *Ibid*.

In accordance with the principle of state ownership of petroleum resources,[803] the 1934 Act vested all rights to the nation's petroleum resources in the state.[804] According to this law, all oil which might exist under ground the property of the state, which had the sole right to grant concessions, vests in the state.[805] Section 1(1) of this Act provides that 'the property in petroleum existing in its natural condition in strata in Great Britain is hereby vested in [the state], and [the state] shall have the exclusive right of searching and boring for and getting such petroleum'.[806] In the English case of *Bocardo,* it was held that sections 1(1) and 2(1) of the Act take away any rights that the landowner may have had to search, bore for and get petroleum beneath its land and instead give the state or its licensee the exclusive right to do so.[807] It was held that the landowner is merely the owner of the paper title to the strata beneath the land, but not the owner of any petroleum to be found in those strata.[808] However, in this case Aikens LJ held that notwithstanding that sections 1(1) and 2(1) of the Petroleum (Production) Act 1934 vested in the state ownership of petroleum existing in its natural condition in strata and conferred on the state the exclusive right to search, bore for and get petroleum and to grant licenses to others to carry out those activities, nothing in the common law or in the [1934] Act, truly construed, granted a licensee the express or implied right to bore pipelines at depth through the land of another within the licensed area in the absence of

[803] See Bunter n 39 *supra* at 42. It should be noted however, as indicated in chapter 2 above (2.2.1) that prior to 1934, petroleum *in situ* belonged to the surface owner under the ordinary common law principle of *cujus est solum, ejus est usque ad coelum et ad inferos.* See Smith n 82 *supra* at 179. See also Smith & Dzienkowski n 112 *supra* at 17 footnote 12; and Onorato n 397 *supra* at 6.

[804] See Bunter n 39 *supra* at 42; and Morgan PG 'An Overview of the Legal Regime for Mineral Development in the United Kingdom' in Bastida E *et al* n 35 *supra* at 887 at 1081 and 1085.

[805] *Ibid*.

[806] For the purpose of this Act, 'petroleum' is defined in s 1(2) as including 'any mineral oil or relative hydrocarbon and natural gas existing in its natural condition in strata, but [which] does not include coal or bituminous shale or other stratified deposits from which oil can be extracted by destructive distillation'.

[807] See *Bocardo* n 801 *supra* at para 77.

[808] See *Bocardo* n 801 *supra* at para 120.

agreement, or the grant of an ancillary right under the Act, even where there was no interference with that land. It was therefore held that the defendants, in intruding into the claimant's strata, had interfered with its possessory rights and had thus committed an actionable trespass on the claimant's land, although such trespass was technical because it had not affected the claimant's use or enjoyment of the land in any way, and the boring and use of the pipelines had not impinged on any rights the claimants had previously had since it neither owned the petroleum nor had the right to search for it.[809] This decision was confirmed by the Supreme Court in *Bocardo SA v Star Energy UK Onshore Ltd and Another*.[810]

Section 2 of the 1934 Act empowered the Board of Trade (now the Department of Trade and Industry), on behalf of [the state], to grant to *such persons as they think fit*, licenses to search and bore for and get petroleum. Such licenses were granted for such consideration (whether by way of royalty or otherwise) as the Board of Trade, with the consent of the Treasury could determine, and upon such other terms and conditions as the Board of Trade could *think fit*.[811] As succinctly summarised by Aikens LJ in *Bocardo*, sections 1(1) and 2(1) of the 1934 Act declare three things, namely the state's ownership of the petroleum; the state's exclusive right to search, bore for, and get that petroleum; and the state's exclusive right to grant licenses to others to search, bore for, and get petroleum.[812] Furthermore, the Board of Trade could also, as soon as possible after granting the license, publish notice of the fact in the *London Gazette* stating the name of the licensee and the situation of the area in respect of which the license has been granted.[813]

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[809] See *Bocardo* n 801 at paras 77, 79-84, 87, and 120-124.

[810] See *Bocardo SA v Star Energy UK Onshore Ltd and Another* (SC(E) (2010) 3 WLR 654; *Bocardo SA v Star Energy UK Onshore Ltd* (SC(E) (2011) 1 AC 380 at paras 14-15, 27-28, 30-31, 34-36, 46, 57, 94, and 116.

[811] Section 2(2) of the Petroleum (Production) Act 1934.

[812] See n 771 *supra* at para 79.

[813] Section 2(3) of the Petroleum (Production) Act 1934.

The state ownership and exclusive right to search for, bore for, and get petroleum, as provided for in the Petroleum (Production) Act of 1934, was supplemented by the Continental Shelf Act of 1964. In terms of section 1(1) of the Continental Shelf Act of 1964, 'any right exercisable by the UK outside the territorial waters with respect to the seabed and their subsoil and their natural resources vests in the [state]'. The power to grant licences was also extended by section 1(3) of the Continental Shelf Act, to areas designated as UKCS by section 1(7) of the same Act. Both the 1934 Petroleum Act and the Continental Shelf Act, 1964, therefore confirmed the doctrine of PSNR and ownership over natural resources *in situ* in England.[814]

4.2.1.2. The Current British Petroleum Regime

As a result of the state sovereignty and ownership of petroleum resources, the British government currently, through the Secretary of State for Energy and Climate Change is entitled to grant exploration and production licenses over a limited area and for a limited period.

Similar to the Petroleum (Production) Act of 1934 Act and the Continental Shelf Act of 1964, the Petroleum Act 1998 also vests all rights to petroleum resources in the UK in the [state]. This is clear from section 2 of the Petroleum Act of 1998, which provides that '[the state] has the exclusive right of searching and boring for and getting petroleum'; which 'exists in its natural condition in strata in Great Britain or beneath the territorial sea area adjacent to the United Kingdom'.[815]

Among other things, the Petroleum Act 1998 provides for licences for exploration and production in territorial waters and the UKCS to be granted by the Secretary of State for Energy and Climate Change. The UK government's aim, through the use of the Act's powers, is to secure the fullest economic exploitation of the nation's resources of hydrocarbons consistent with safety and environmental requirements. For licensing

[814] See Bunter n 39 *supra* at 42. See also Daintith n 82 *supra* at 201.

[815] See s 2(1) read together with s 2(2) of the Petroleum Act 1998.

purposes, the government divides the UK waters into blocks. A license is granted in respect of one or more blocks or part-blocks. Since the 1960s, the UK government has held a succession of 'licensing rounds' in which it has invited applications for licences. Issued under section 3 of the Petroleum Act of 1998 the licenses grant a right to 'search and bore for, and get, petroleum' in the area covered by the licence. However, the granting of a license does not, in itself, entitle the licensee to carry out drilling. Production licenses and petroleum exploration and development licenses are valid for a sequence of periods, called terms.[816] The Petroleum Licensing (Production) (Seaward Areas) Regulations[817] prescribe model clauses which, pursuant to section 4(1)(e) of the Act, must be incorporated in all licences granted by the Secretary of State unless he thinks fit to modify or exclude them in any particular case.

Applicants are judged against the background that they fully meet the general objective of encouraging expeditious, thorough, and efficient exploration to identify the oil and gas resources of the UK.[818] The criteria used to make this judgment are set out in regulations.

Applicants must meet threshold standards of financial capability and environmental management. All that is required is that they should also demonstrate technical competence through their geological interpretation of the area applied for and their plans for further exploration and appraisal of its potential resources.[819] Unfortunately, there is no definition of or guideline as to what these threshold standards entails. It is submitted that it is entirely up to the discretion of the licensing authority to determine whether an applicant meets these requirements and thus qualify to be granted the necessary license.

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[816] See Tordo *et al* n 791 *supra* at 22.

[817] See page 118 - Appendix C 2008 (SI 2008/223) ('the 2008 Regulations').

[818] See Tordo *et al* n 791 *supra* at 22.

[819] *Ibid*.

Most licenses follow a standard format, but conditions may be amended to suit special scenarios. Licenses are granted at the discretion of the Secretary of the DECC (the Department of Energy and Climate Change). There are basically three types of licenses, depending on whether the area is offshore or onshore, namely:

- a three year exploration license which grants non-exclusive exploration rights in areas below the low-water line, and which are not covered by a production license;[820]
- production licenses which grant exclusive exploration and production rights in areas in the territorial sea and UKCS. These type of licenses cover a relatively small area — typically a couple of hundred square kilometers. Production licenses include traditional licenses,[821] promote licenses,[822] frontier licenses,[823]

[820] If the holder of an exploration license wants to explore acreage covered by a petroleum license, it will need the agreement of the holder of the production license. See Tordo *et al* n 791 *supra* at 65. See also http://og.decc.gov.uk/en/olgs/cms/licences/licensing_guid/types_of_licen/types_of_licen.aspx (accessed on 07 November 2011).

[821] This is the familiar Seaward Production Licence that has been in use since offshore licensing began. Most licences issued since seaward licensing began have been Traditional Licences. An applicant for this license must prove technical/environmental competence and financial capacity before an offer of a traditional licence will be made. The duration of the licence is as follows: an initial term of four years with a mandatory relinquishment of 50 per cent at the end of this term, a second term of four years, and a third term of 18 years. See http://og.decc.gov.uk/en/olgs/cms/licences/licensing_guid/types_of_licen/types_of_licen.aspx (accessed 07 November 2011).

[822] A variant of the Seaward Production Licence, a promote license was introduced in 2001 to provide small companies with an opportunity to apply for unlicensed blocks and, if successful, evaluate the potential on an exclusive basis for a reduced rental fee. It is thus designed to allow small- and start-up companies a Production Licence first, and to attract the necessary operating and financial capacity later. A promote license provides a period of time during which licensees are able to work up potential prospects primarily using existing data without the commitment to undertake substantial seismic or drilling at an early stage. If the licensees do not have the resources to support a substantial work program they can sell on to a competent operator (or

bring in) partners within the first two years to continue for a further two years for a well to be drilled under the terms of a traditional license. See Tordo *et al* n 791 *supra* at 65 footnote 6. The licence requires financial, technical and environmental capacity to be in place, and a firm drilling (or agreed equivalent equally substantive activity) commitment to have been made by the end of the second year– or the licence will expire at that time. Applicants for this licence do not need to prove technical/environmental competence or financial capacity before award of the licence but they must do so within two years of its start date if they are to keep the licence. They will otherwise not be permitted to operate until they have done so. The duration of this licence consist of an initial term of four years with a mandatory relinquishment of 50 per cent at the end of the initial term, a second term of four years, and a third term of 18 years. See http://og.decc.gov.uk/en/olgs/cms/licences/licensing_guid/types_of_licen/types_of_licen.aspx (accessed 18 August 2011), for details.

[823] The frontier license was introduced in the 22nd round (2004) by the BERR (currently DECC) to allow companies to explore large areas with the proviso of a mandatory 75 percent relinquishment at the end of the first three years, within the initial six year term. This is another variant of Seaward Production Licence. It has a six-year exploration phase and is designed to allow companies to evaluate large areas with greater materiality for a period, so they can look for a wider range of prospects. An applicant must prove technical/environmental competence and financial capacity before offer of a six-year frontier licence is made. The duration of this licence consists of an initial term of six years, a second term of six years, and a third term of 18 years. There is a special mandatory relinquishment of 75 percent after three years with a mandatory relinquishment at the end of the initial term of 50 per cent of the remainder. There is also a new variant of Seaward Production Licence in the form of a frontier licence of nine years. It is designed for the particularly harsh West of Scotland environment, and is similar to the existing Frontier Licence but with an initial term of nine years. The DECC will only consider work programmes of the Drill-or-Drop type with the decision to be made by the end of the sixth year and (if the licensee chooses to drill) drilling to be completed within the remaining three years of the initial term. Because geophysical data is especially sparse in this region, the DECC expects work programmes to include significant new seismic acquisition. The applicants must prove technical/environmental competence and financial capacity before a licence offer will be made. The duration of this licence consists of an initial term of nine years, a second term of six years, and a third term of 18 years. Similarly, there is a special mandatory relinquishment of 75 per cent after six years with a mandatory relinquishment at the end of the initial term of 50 per cent

and licenses specially drafted to cover the redevelopment of a decommissioned field; and

- a petroleum exploration and development license (PEDL) which grants the holder exclusive exploration and production rights in landward areas, that is, areas landward of the baseline of the territorial sea. This is therefore a full name of the Landward Production Licence.[824] It is similar to the Traditional Seaward Production Licence, although for historical and practical reasons there are many differences in detail. Applicants must prove technical competence, awareness of environmental issues and financial capacity before being awarded a PEDL. The duration of the licence consists of an initial term of six years, a second term of five years, and a third term of 20 years. There is a mandatory relinquishment of 50 per cent at the end of the initial term.

Production licenses and petroleum exploration and development licenses are valid for a sequence of periods, called terms.[825] The first term is four years (six years for frontier licenses) and covers exploration activities. The license expires automatically at the end

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of the remainder. See http://og.decc.gov.uk/en/olgs/cms/licences/licensing_guid/types_of_licen/types_of_licen.aspx (accessed 18 August 2011).

[824] There is another kind of landward licence called a Supplementary Seismic Survey Licence (SSSL). This licence is necessary if the operator of a Landward Production Licence wants to shoot a seismic survey right up to the boundary of their licensed area. He will need to operate the survey equipment a little way outside of it. If that means working in unlicensed acreage, they can seek an SSSL, which lasts for one year and covers a kilometre-wide strip adjacent to the existing Production Licence. An SSSL will only be issued to the operator of a Production Licence– not to their partners. The DECC needs to be told the coordinates of the additional area and provided an A4 map of the area. Any new Production Licence subsequently issued over the same acreage will automatically terminate the SSSL. If there is only a partial overlap, the SSSL will cease to operate on that overlap. See http://og.decc.gov.uk/en/olgs/cms/licences/licensing_guid/types_of_licen/types_of_licen.aspx (accessed 18 August 2011).

[825] See Tordo *et al* n 791 *supra* at 62.

of the first term unless the conditions for entry into the second term are fulfilled. The second term, which covers appraisal and development activities, is four years for production licenses and five years for exploration and development licenses. The third term is 18 years for production licenses and 20 years for exploration and development licenses, and covers production activities. Completion of the agreed exploration work program by the end of the first term and the relinquishment of at least 50 per cent of the original license area are preconditions for entry into the second term, and approval of a development plan by the end of the second term is a precondition for entry into the third term.

What is clear from the exposition above is that the Minister's discretion in allocating licenses is very wide. It is limited only by the European Community (EU) law in terms of which he cannot discriminate any applicant from a member state on the basis of nationality.[826]

In the UK licenses can thus be applied for landward areas[827] in terms of the Petroleum (Production) Act, or for seaward areas[828] (the offshore) in terms of the Continental Shelves Act.[829] However, offshore licences can only be applied for in response to a gazetted invitation except when surrendered acreage or when the Secretary for DECC specifically issues an invitation to a particular person.[830] These gazetted invitations are organised in offshore licensing rounds and are announced in the *London Gazette*. In

[826] See Daintith & Willoughby n 50 *supra* at 24.

[827] Landward areas include the land of Great Britain down the low water-mark, together with inland waters (that is, waters on the landward side of the baselines from which the territorial sea is measured) and the areas of territorial sea around Orkney and Shetland. See Daintith & Willoughby n 50 *supra* at 20.

[828] Seaward areas comprise the remainder of the territorial sea, together with areas designated under the Continental Shelf Act 1964 and certain small islands within those areas, like Fair Isle and St. Kilda. See Daintith & Willoughby n 50 *supra* at 20.

[829] See Taverne n 82 *supra* at 49.

[830] *Ibid*.

these gazette notices, it is stated under which Regulations the Secretary of State for DECC is prepared to receive applications for licences.[831] Should the Secretary of State wish to introduce new model clauses for incorporation in the licences to be granted under the round, then the Secretary will have to amend or completely replace the then existing Regulations before announcing the round. The gazette notices will specify the particular conditions for incorporation in the licenses, such as duration (if different from the duration stipulated in the model clause of the governing Regulations), initial payments, annual area payments, and the rate of royalty, and will list the blocks available for licensing, the blocks open for cash tender bids, blocks with drilling restrictions and the criteria against which an applicant will be judged (the 'qualifying criteria').[832] It is these discretionary criteria that we are concerned with in this chapter.

4.2.1.3. The Discretionary Licensing System in the UK

The discretionary allocation system in Great Britain is not a recent feature of the British petroleum regulation. As early as 1964 when the first licensing round was announced, the 1964 Continental Shelf Act itself did not specify the criteria for issuing licences.[833] As Dam indicates, at that time,

> [a]ll of the substantive requirements were left to the Ministry of Power to determine after the formal regulations were issued.[834] In good British fashion, the criteria were neither kept secret nor promulgated as regulations but rather announced on the floor of the House of Commons. These criteria were anything but precise, however, and would hardly lend themselves to adjudicatory application; for example, a judicial tribunal required to review a particular allocation would have found application of the criteria difficult. These were merely statements of the preferences and predilections that were to guide the ministry in making its awards.[835]

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[831] *Ibid*.

[832] See Taverne n 82 *supra* at 49.

[833] See Dam n 45 *supr*a at 24.

[834] *Ibid*.

[835] *Ibid*.

At the first round in 1964, for instance, the five criteria announced by FJ Erroll, the Minister of Power at that time, were:

> [f]irst, the need to encourage the most rapid and thorough exploration and economical exploitation of petroleum resources on the continental shelf. Second, the requirement that the applicant for a license shall be incorporated in the United Kingdom and the profits of the operation shall be taxed here [in the UK]. Third, in cases where the applicant is a foreign-owned concern, how far British oil companies received equitable treatment in that country. Fourth, we shall look at the contribution the applicant has already made and is making towards the development of resources of our continental shelf and the development of our fuel economy generally.[836]

Clear from these criteria is the Minister's consideration of the companies' work programme. This is particularly clear from the fourth criterion which refers to 'the contribution the applicant has already made and is making towards the development of resources of our continental shelf'. This ministerial discretion based on the companies' work programme became the rule rather than the exception as it continued, although slightly adapted[837] to the second round in 1965 and the third round in 1969. This discretionary system based on the proposed work programme of the company is still the defining character of the British licensing allocation system to date.

Currently licenses are awarded at the discretion of the Secretary of the DECC[838] in terms of the Petroleum Act 1998.[839] As Daintith and Willoughby note, 'in strict legal terms it might be said that all offshore licensing is discretionary, in the sense that the 1934 Act gives the Minister the power to grant licenses 'to such persons as he thinks fit'

[836] As quoted by Dam n 45 *supra* at 25.

[837] For instance in the second licensing round, the Minister of Power added to the criteria that he 'shall also take into account any proposal which may be made for facilitating participation of public enterprise in the development and exploitation of the resources of the Continental Shelf'. See Dam n 45 *supra* at 29.

[838] Before March 5, 2009, the Department for Business, Enterprise and Regulatory Reform (BERR) was the responsible authority.

[839] The Petroleum Act 1998 (1998 Chapter 17).

and ‘for such consideration as he, with the consent of the treasury may determine.’[840] Discretionary allocation refers to a method of allocation in which no single criterion—whether it be the size of cash premium bid or some other quantity — is indicated as even *prima facie* determinative of the choice to be made by the Minister as licensing authority.[841]

Although the criteria for allocation have varied over the years,[842] Daintith and Willoughby maintains that the following essential elements of the criteria remains constant: the technical and financial capability of the applicants; their previous licence performance; relevant exploration work; the applicants’ contribution to the UK economy; in the case of foreign applicants, equitable treatment by their governments of UK applicants for licence.[843]

The discretionary character of this British licensing regime is clear from several provisions of this Act. These include section 3(1) which provides that the Secretary of State, on behalf of [the state], *may grant to such persons as he thinks fit* [own emphasis] licences to search and bore for and get petroleum…’; section 3(3) which provides that ‘any such licence shall be granted for such consideration (whether by way of royalty or otherwise) as the Secretary of State with the consent of the Treasury *may determine* [own emphasis], and upon such terms and conditions as the secretary of State *thinks fit* [own emphasis]*’.*

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[840] See Daintith & Willoughby n 50 *supra* at 23.

[841] *Ibid*.

[842] As Daintith & Willoughby notes, in recent rounds the criteria have also included: the readiness of applicants to offer full and fair opportunity to UK industry to compete for orders for goods and services (and where appropriate past performance in this regard); readiness to give facilities to trade unions; and performance in training for offshore employment. In addition, invitations to apply have always stressed ‘the continuing need for expeditious, thorough and efficient exploration’. See Daintith & Willoughby n 50 *supra* at 23.

[843] See Daintith & Willoughby n 50 *supra* at 23.

As indicated earlier, the UK government uses a discretionary allocation system to allocate blocks on the UKCS, based primarily on the size of the companies work programme.[844] Companies are asked to submit, prior to the allocation of licenses, the minimum number of wells they would drill over the course of the lease on the blocks for which they are applying.[845] Applicants are then evaluated further on the basis of other discretionary factors, such as the exploration and development record of the companies on the UKCS, and the financial and technical ability of the companies to implement their minimum work programmes.[846] This, according to the UK government, promotes a 'rapid and thorough exploration of the North Sea oil resources'.[847] By ensuring that companies commit themselves, prior to the award of the lease, the government aims to guard against the possibility that companies, once awarded monopoly rights over the exploitation of the resources of a lease, might invest at a level which it considers too small.[848] However, Kretzer argues that this licensing model, which emphasises the size of the work programme, can result in strategic but wasteful overcapitalisation, because of the type and competition (and number of competitors) between companies competing for allocation in this model.[849] In other words, Kretzer argues that the companies response to a licensing round will usually be to exaggerate the work programme unnecessarily above the optimal level of capital employed, thus resulting in overcapitalisation because the government would have converted the bid revenue it would capture were it to auction the leases into capital which is excessive of that required for the most cost effective extraction of the resources.[850] Furthermore, Kretzer maintains that an allocation based on the size of the work programme risks awarding leases to companies with higher resource uncertainty and lower lease valuations.[851]

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[844] See Kretzer n 331 *supra* at 299.

[845] *Ibid*.

[846] *Ibid*.

[847] *Ibid*.

[848] *Ibid*.

[849] *Ibid*.

[850] Kretzer n 331 *supra* at 311.

[851] See Kretzer n 780 *supra* at 235.

Kretzer, therefore, concludes that the discretionary licensing system, based on declared work programmes, is a less effective tool than a pure auction licensing.[852]

After examining the discretionary allocation system and comparing it to the auction system that is applicable in the USA, Dam concludes that the auction system has two 'attractive qualities' compared to the UK discretionary system, namely, it allocates licenses to the most efficient applicant, and it eliminates the competitive return attached to scarce resources.[853]

4.2.2. The British Petroleum Fiscal Regime

The fiscal regime applicable in the UK to oil and gas exploration and extraction is very complex and has undergone significant changes over time. The relevant legislation in this regard includes the Oil Taxation Act of 1975, the Finance Act of 2006, and the Income and Corporation Taxes Act of 1988. The UK operates a royalty/tax regime in terms of which a royalty based on production is imposed in addition to a profit based tax. As demonstrated later in chapter 5, this system is similar to that of South Africa.

The marginal tax rate on new fields is 50 per cent, while the marginal tax rate on fields paying petroleum revenue tax is 75 per cent.[854] The current regime consists of a ring-fenced corporation tax,[855] a supplementary charge,[856] and a petroleum revenue tax.[857]

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[852] Kretzer n 331 *supra* at 311.

[853] See Dam n 45 *supra* at 34.

[854] See Tordo *et al* n 791 *supra* at 63.

[855] The ring-fence corporation tax is calculated in the same way as the standard corporation tax; applicable to all companies with the addition of a —ring-fence and a 100 percent first-year allowance for virtually all capital expenditure (other differences exist for capital allowances and losses). The current rate for non-ring fence profits is 28 percent, and 30 percent for ring-fence profits.

[856] The supplementary charge was introduced in 2002 and is an additional charge of 20 percent (10 percent prior to January 1, 2006) on a company's ring-fence profits excluding finance costs.

The ring fenced expenditure supplement applies in special circumstances.[858] Companies which do not yet have any taxable income for corporation tax or any supplementary charge against which to set off their exploration, appraisal, and development costs and capital allowances, are granted a ring-fenced expenditure supplement.[859] The supplement increases the value of unused expenditure carried forward from one period to the next by a compound 6 per cent a year for a maximum period of six years. It applies to all unrelieved expenditure from January 1, 2006.[860] The impact of the applicable fiscal regime is influenced by possible state participation in terms of a particular JOA.[861]

4.2.3. The Legal Nature of the License in the UK

One of the fundamental questions in oil and gas law in Britain is why one should need a licence in order to explore for and exploit these resources. The answer given is: the government owns all petroleum in strata and has the exclusive right to explore for and exploit it.[862] Anyone who intends to explore for or exploit these resources therefore requires permission given by the government in the form of a licence.

According to Daintith, 'the petroleum production licence [under the 1934 Act] …has two quite different characters in the United Kingdom: that of a pure instrument of public

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[857] The petroleum revenue tax is a field-based tax charged on profits arising from individual oil fields. The current rate is 50 percent. This tax, which was abolished for all fields given development consent on or after March 16, 1993, is deductible as an expense against corporation tax and the supplementary charge.

[858] See Tordo *et al* n 754 *supra* at 21.

[859] See Tordo *et al* n 754 *supra* at 66.

[860] *Ibid*.

[861] See below part 4.2.5

[862] See Daintith & Willoughby n 50 *supra* at 18.

regulation; and that of a grant of public property'.[863] A pertinent question, however, is: what is the legal nature of the licences? Are they contractual or regulatory in character? Or does it really matter? To answer the last question, according to Anenih, 'this question is of extreme significance in evaluating the stability of the licence, as it affects the predictability of the environment that the private licensee has to operate in'.[864] Daintith and Willoughby also attest to the importance of this question as follows,

> [t]his is not [merely] an academic distinction: on it depends answers to important questions, such as whether the license may be unilaterally amended, which is characteristic of regulations but not of contracts; whether it is to be interpreted according to private law or public law principles; what rules apply to the termination of the licence relationship; and what rights the licence confers against third parties.[865]

In an attempt to explain the legal character of these licences, Daintith and Willoughby maintain that,

> [a]t first sight the licence appears to be mixed in character. It is contractual in form, being executed as a deed by the Minister on one side and the licensee on the other. It displays certain elements of a commercial transaction—that is to say, the assignment or transfer by the Crown, over a defined period, of certain valuable rights, in return for annual payments, royalties on the produce of those rights, and, in the case of some licences, premium payments also. At the same time, the licence arrangements retain a strongly regulatory flavor, both by reason of the formal rules for the issues of licences laid down at instigation of Parliament, and by reason of the content of licences themselves, which must normally accord with the model clauses regulating such matters as working methods, safety, pollution and training, and reserving to the Minister considerable powers of direction of the licensee's activity.[866]

On the other hand, Anenih argues that-

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[863] See Daintith n 82 *supra* at 202

[864] See Anenih n 802 *supra* at 2.

[865] See Daintith & Willoughby n 50 *supra* at 27.

[866] *Ibid*.

> [i]t is useful to try and label the petroleum production licence, but impossible to neatly compartmentalize it. Without doubt, the licence is contractual in form. Nonetheless, there is another side to the licence that is evidently regulatory. In answer to the question "What is the legal character of the production licence?" it is submitted that it is in fact a regulation masquerading as a contract. Whether the licence is tagged as a contract or regulation, the state still maintains maximum control and can exercise its executive powers to get around the limitations to unilateral amendments of the agreement. It is only by looking deeper beyond the labels such as 'contract' or 'regulation' that one may truly appreciate the nature of the licence.[867]

Anenih therefore correctly highlights the fact that the mere language used in the license is not sufficient to determine the true nature of the license. As he argues, 'the language of contract contained in the licence is not of itself sufficient evidence that the licence is in fact an enforceable contract – it may be a mere statement of intention. Arguably, what is of paramount importance is the substance of the licence'.[868] He therefore concludes that the contractual appearance of the UK petroleum production license merely serves to conceal its truly regulatory character.[869] Although the author agrees with Anenih on the point he makes that the substance rather than the label of a particular arrangement should be determinative of the true legal nature of the license, the author differs with Anenih on the conclusion that the contractual nature of the license merely serves to conceal its truly regulatory character.

In the author's view, the nature of a petroleum licence is a mixture of private and public law or contractual and regulatory, and therefore agrees with the position held by Daintith and Willoughby. The private law elements are the logical consequences of the contractual and commercial nature of the business. The public law elements are not only derived from the state ownership of petroleum resources, but also from the legislative and administrative regulation thereof which entails not only the granting of licenses by

[867] See Anenih n 802 *supra* at 10.

[868] *Ibid*.

[869] *Ibid*.

an authoritative government body, but also the fiscal arrangements in terms of which the non-state contractor is obliged to make payments to the state, be it in the form of taxes, signature bonuses, or royalties. The public law element or regulatory nature of the licenses is also evident from other state regulatory intervention in the form of environmental regulation and occupational health and safety. Most importantly, the discretionary nature of the Minister's power to grant or refuse to grant the license strongly suggests and supports its public law nature and thus its regulatory nature as well; and so is the fact that the Minister, by regulations, prescribes model clauses.

4.2.4. State Participation in the UK

In 1976, with the announcement of a fifth round involving 71 blocks, licenses were offered according to the discretionary system, subject to an additional condition that the successful applicant enter into satisfactory arrangements under which a state corporation (the British National Oil Corporation or BNOC[870] and the British Gas Operation or BGC) would become a 51 per cent equity partner in the license.[871] The guidelines for such agreements, originally proposed by the Department of Energy, envisaged that BNOC might be 'carried' by its partners through the exploration and development stages of work under the licence, contributing its share of such costs, with interest, only at the commencement of production.[872] However, due to vigorous opposition from the industry, this initial idea was soon abandoned in favour of the BNOC contributing, right from the beginning, at least 51 per cent of costs on each and every licence in which it had an interest.[873]

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[870] Established on 1 January 1976 by the Petroleum and Submarine Pipe-lines Act 1975, as a mechanism for the holding of state participation in licences.

[871] See Daintith & Willoughby n 50 *supra* at 41.

[872] *Ibid*.

[873] *Ibid*.

State participation was undertaken through JOAs.[874] Although there are different variations, all JOAs had, and still maintain the following essential elements:

- the inclusion of BNOC as a licensee along with existing consortium partners;
- the grant to BNOC under the licence JOA of an entitlement to take, at market price, up to 51 per cent of the oil attributable to the licensees under the licence (reduced, if appropriate, by the amount of any BNOC membership equity interest in the licence); and
- BNOC membership, with a vote, of the operating committee.[875]

This legal position still exists to this day.[876]

4.3. The Nigerian Legal Framework: The British Model

Like many African states, Nigeria is a British creation.[877] It is historically believed that the name 'Nigeria' was first suggested by Flora Shaw, a newspaper correspondent who wrote:

> [i]t may be permissible to coin a shorter title for the agglomeration of pagan and Mahomedan states which have been brought by the extensions of the Royal Niger Company within the confines of the British protectorate and thus for the first time in their history be described as an entity... The name 'Nigeria' applying to no other portion of Africa may, without offence to any neighbours, be accepted as a co-extensive within the territories over which the Royal Niger Company has extended British influence, and may serve to differentiate them from the British colony of Lagos and the Niger protectorate on the coast and from the French territories of the Upper Niger.[878]

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[874] *Ibid*.

[875] See Daintith & Willoughby n 50 *supra* at 43.

[876] See Daintith n 82 *supra* at 203.

[877] See Ebeku KSA *Oil and the Niger Delta People in International Law: Resources Rights, Environmental and Equity Issues* (Rüdiger Köpper Verlag 2006) 14.

[878] As quoted in Ebeku n 885 *supra* at 16.

Prior to 1914 Nigeria was not the independent or the sovereign state, nation and country, that we know today.[879] The modern day Nigeria is a negotiated geographical delineation between the British and French colonisers.[880] Lured by the prospect of trade and the abundant natural resources in Africa in general, Britain gradually took control over and eventually colonised, from the 1880s to 1960, the geographical delineation which makes the modern day Nigeria. Demands for independence and British withdrawal from Africa resulted in Nigeria obtaining independence on 1 October 1960.[881]

At the time when it gained its independence, Nigerian oil revenues were too little to substantially influence the political landscape of the country.[882]

Before exploring the current legal framework consisting of the legislative framework and the contractual arrangements, it is necessary to trace the historical development of the

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[879] See Sagay I 'Nigeria: Federalism, the Constitution and Resource Control' a speech delivered by Sagay, at the fourth sensitisation programme organised by the Ibori Vanguard, Lagos http://www.waado.org/nigerdelta/essays/resourcecontrol/sagay.html (accessed 14 November 2011).

[880] See generally, Lee A & Schultz KA 'Comparing British and French Colonial Legacies: A Discontinuity Analysis of Cameroon' available at http://www.sscnet.ucla.edu/polisci/wgape/papers/17_Lee.pdf (accessed 12 May 2012).

[881] See Ebeku n 885 *supra* at 17; Pearson SR *Petroleum and the Nigerian Economy* (Stanford University Press 1970) 1; Adedipe B 'The Impact of Oil on Nigeria's Economic Policy Formulation' a paper presented at the conference on Nigeria: Maximising Pro-poor Growth: Regenerating the Socio-economic Database, organised by Overseas Development Institute in collaboration with the Nigerian Economic Summit, 16th-17th June 2004; and Illedare W & Suberu R 'Oil and Gas Resources in the Federal Republic of Nigeria' a Framework Paper presented at the conference on oil and gas in federal systems' March 3-4, 2010, available at http://siteresources.worldbank.org/EXTOGMC/Resources/336929-1266445624608/Framework_Paper_Nigeria2.pdf (accessed August 2011) at 3.

[882] See Thurber MC *et al* 'NNPC and Nigeria's Oil Patronage Ecosystem' *Working Paper* No. 95 of September 2010 of *the Program of Energy and Sustainable Development (PESD)*, available at http://pesd.stanford.edu at p (accessed 14 August) 8.

legislative framework and vast comparative advantage of petroleum resources in Nigeria, in order to put it in a proper historical context.

4.3.1. Nigeria's Petroleum Exploration and Legal Framework: Historical Context

There is minimal literature on oil and gas exploration in colonial Africa in general, and Nigeria in particular.[883] As Steyn observes,

> [a]n area that has remained largely unexplored by Africanists, however, is the history of oil exploration in colonial Africa, notwithstanding the extensive oil exploration activities during this period. This is not only true of the history of colonies with no known oil deposits such as Nyasaland, where British Petroleum, for example, spent £33,334 on a futile search for oil between 1918 and 1928; the history of oil exploration in many of the African oil producing and exporting states seems to be remarkably brief.[884]

This author continues by indicating that-

> Nigeria is no exception and the published oil historiography includes no article or book devoted exclusively to the topic. Only two authors, Carland and Njeze, have addressed oil exploration in colonial Nigeria in any depth, with Carland limiting his focus to the relationship between the Nigeria Bitumen Corporation and the Colonial Office between

[883] The available literature on oil in Nigeria is focused only on the impact of this resource on the Nigerian economy. For instance, see Schaltz LH *Petroleum in Nigeria* (Ibadan 1969); Pearson n 889 *supra*; Emembolu G *Pollution and Development of Dual Economy: the Nigerian Example* Unpublished Ph. D Thesis, University of Colorado, 1975; Turner T *Government and Oil in Nigeria: A Study of the Making and Implementation of Petroleum Policy* Ph.D Thesis University of London; Odofin D *The Impact of Multinational Corporations on Nigeria's Economic Growth: Theoretical and Empirical Explorations* Unpublished Ph.D Dissertation, American University, Washington D.C., 1979; Ihonvbere JO & Shaw TM *Towards the Political Economy of Nigeria* (Cower Publisher 1988); Onosode IC *An Analysis of the Effect of the Oil Industry on Economic Developments in Nigeria* Unpublished Ph.D Thesis, University of Kent, Canterbury, 1998; Khan SA *Nigeria: The Political Economy of Oil* (Oxford 1994); and Ikein AA *The Impact of Oil on a Developing Economy: The Case of Nigeria* (New York and London: Praeger, 1990).

[884] See Steyn P 'Oil Exploration in Colonial Nigeria, C.1903-1958', available at https://dspace.stir.ac.uk/bitstream/1893/2735/1/Oil%20exploration%20in%20colonial%20Nigeria.pdf, (accessed 09 November 2011) at p 1.

> 1906 and 1914. Njeze, on the other hand, concentrated upon the case of Captain Edward Algernon Barnett in 1907 and the development of oil legislation in 1907, 1914 and 1916 and dealt with other oil exploration activities between 1906 and 1958 rather briefly. Consequently their accounts of oil exploration in colonial Nigeria are incomplete and leave out more than they include. Apart from these two authors, no standard monograph on the Nigerian oil industry has attempted a detailed examination of the exploration for oil there before the 1950s.[885]

Although it is not quite clear as to the exact year on which oil exploration commenced in Nigeria,[886] it is true, as Ogri indicates, that 'the oil industry in Nigeria is relatively young'.[887] Oil exploration activities in Nigeria started only in 1908[888] by a German company called 'the Nigerian Bitumen Company'.[889] This exploration was, however, unsuccessful and the company terminated its operations following an outbreak of the First World War.[890] The next concession was granted to Shell D' Arcy in 1938,[891]

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[885] See Steyn n 892 *supra* at 1.

[886] See Nwapi C 'A Legislative Proposal for Public Participation in Oil and Gas Decision-Making in Nigeria' 54(2) (2010) *Journal of African Law* 184 at 188.

[887] See Ogri OR 'A Review of the Nigerian Petroleum Industry and the Associated Environmental Problems' 21 (2001) *The Environmentalist* 11 at 15. See also Ikein n 891 *supra* at 2.

[888] See Sena A 'Recent Development in the Structuring of Petroleum Investments in Nigeria' in Wälde & Nkidi n 62 *supra* at 121; and Asada D 'The Petroleum Industry in Nigeria: Joint Operating Agreements, Memorandum of Understanding, Compensation and Other Related Issues in Perspective' available at http://dspace.unijos.edu.ng/bitstream/10485/1469/1/The%20Petroleum%20Industry%20in%20Nigeria.pdf (accessed 01 January 2011).

[889] See Ebeku n 885 *supra* at 67; Omorogbe Y 'The Legal Framework for the Production of Petroleum in Nigeria' 15 (1987) *JENRL* at 274; Ogri n 895 *supra* at 15; and Nwapi n 894 *supra* at 188.

[890] See Omorogbe n 897 *supra* at 274, also quoted in Ebeku n 885 *supra* at 68.

[891] See Ebeku n 885 *supra* at 68; Omorogbe n 897 *supra* at 274; Ogri n 895 *supra* at 15; Ihonvbere & Shaw n 8914 *supra* at 78.

covering the entire mainland of Nigeria which comprised 357,000 square miles.[892] This concession is typical of the concession system through which developing countries were exploited by FOCs in exchange for token amounts of consideration.[893] Shell recorded its first discovery in 1956[894] and started production in 1958[895] from the company's Oloibiri field (the present day Bayelsa State) in the Eastern Niger Delta.[896] Another discovery

[892] See Omorogbe n 897 *supra* at 274; and Nlerum FE 'Reflections on Participation Regimes in Nigeria's Oil Sector' (2007-2010) *Nigerian Current Law Review* 145 at 147.

[893] See n Omorogbe n 42 *supra* at 342.

[894] See Pearson n 889 *supra* at 2; Ogri n 895 *supra* at 15; Thurber *et al* n 417 *supra* at 8; Mähler A 'Nigeria: A Prime Example of the Resource Curse? Revisiting the Oil-Violence Link in the Niger Delta' German Institute of Global and Area Studies **(**GIGA) Research Programme: Violence and Security Working paper No. 120 of January 2010, available http://www.giga-hamburg.de/dl/download.php?d=/content/publikationen/pdf/wp120_maehler.pdf (accessed 01 October 2011) 14; Nwilo PC & Badejo OT 'Impacts and Management of Oil Spill Pollution along the Nigerian Coastal Areas' *The World Fact Book* (CIA 2005) __Nigeria.htm. World Bank (2010) *World Development Indicators & Global Development Finance 2010,* available at http://search.worldbank.org/data?qterm=population&language=EN&format=html (accessed 12 August 2011); Nwapi n 894 *supra* at 188; Sena n 896 *supra*; and Raji W 'Oil Resources, Hegemonic Politics and the Struggle for Re-inventing Post-colonial Nigeria' in Na'Allah n 29 *supra* at 109; and Ameh MO 'The Shift from Joint Operating Agreements to Production Sharing Contracts in the Nigerian Oil Industry: any Benefits for the Players?' available at http://www.dundee.ac.uk/cepmlp/car/html/CAR10_ARTICLE32.PDF (accessed 15 August 2011).

[895] See Pearson n 889 *supra* at 2; Adedipe n 889 *supra* at 1; Ogri n 895 *supra* at 15; Raji n 902 *supra*; Inokoba PK & Imbua DL 'Vexation and Militancy in the Niger Delta: The Way Forward' 29(2) (2010) *Journal of Human Ecology* 101 at 104; and Okonmah PD 'Right to Clean Environment: the Case for the People of Oil-Producing Communities in the Niger Delta' 41 (1997) *Journal of African Law* 43.

[896] See Nwapi n 894 *supra* at 189; Ebeku n 885 *supra* at 69; Nwokedi J 'Nigeria's Business' in *Nigeria Handbook* (Lagos, Nigeria: Patike Communications 1985) quoted in Olaloku FA *et al Structure of the Nigerian Economy* (1979 The Macmillan Press) 3; Aturu B 'Oil and Gas Contracts: Legal Issues and Experience from Nigeria' at 1 available at http://www.google.co.za/#sclient=psy-ab&hl=en&site=&source=hp&q=Oil+and+Gas+Contracts:+Legal+Issues+and+Experience+from

was made towards the end of 1956 at Afam in Rivers state.[897] These discoveries rapidly developed and by 1958 production had reached 5,100 barrels per day, and Nigeria made its first shipment of oil to Europe, thus exposing itself to the world of petroleum.[898]

In 1959, the sole concessionary rights had been reviewed and extended to other companies of different nationalities so that Mobil, Gulf, Agip, Safrap (Elf), Tenneco, and Amoseas (Texaco/Chevron) had been granted concessions in both offshore and offshore areas of Nigeria.[899]

Due to its previous monopolistic advantage, as the concession holder for almost the entire territory of Nigeria, Shell was (and still is) the most important producer of Nigerian oil, exporting over half of the oil produced daily.[900] This explains why it is often a target of militant activities in the Niger Delta.[901] However, in addition to Shell there are a number of IOCs currently in operation in Nigeria. [902]

+Nigeria%E2%80%99+&pbx=1&oq=Oil+and+Gas+Contracts:+Legal+Issues+and+Experience+from+Nigeria%E2%80%99+&aq=f&aqi=&aql=&gs_sm=s&gs_upl=4109l4109l0l5219l1l1l0l0l0l0l250l250l2-1l1l0&bav=on.2,or.r_gc.r_pw.,cf.osb&fp=807a4cba193fe8c5&biw=1280&bih=841 (accessed 01 October 2011); and Omorogbe n 897 *supra* at 274.

[897] See Nwapi n 894 *supra* at 189.

[898] See Ihonvbere & Shaw n 891 *supra;* and Ikein n 891 *supra* at 2.

[899] See Omorogbe n 897 *supra* at 274.

[900] *Ibid*.

[901] See generally Oronto D *et al* 'Oil and Militancy in the Niger Delta: Terrorist Threat or Another Colombia?' This brief is in part a response to, and a continuing dialogue with, the CSIS Africa Notes 16 May 2003, 'Alienation and Militancy in Nigeria's Niger Delta', The Africa Program, Center for Strategic and International Studies, Washington DC, available at http://geogweb.berkeley.edu/ProjectsResources/ND%20Website/NigerDelta/WP/4-DouglasVonOkonta.pdf (accessed 12 October 2011); Inokoba & Imbua n 903 *supra* at 101; Paki FAE & Ebienfa KI 'Militant Oil Agitations in Nigeria's Niger Delta and the Economy' 1(5) (2011) *International Journal of Humanities and Social Science* 140.

[902] In 2007, the number of these oil companies had increased to 24 including the top four namely, Shell Petroleum Development Company (Shell), ExxonMobil, Chevron Nigeria Limited

4.3.1.1. Nigeria's Legal Framework in Historical Context

Historically the first piece of legislation on petroleum in Nigeria was the Petroleum Ordinance of 1889.[903] This legislation was followed by the Mineral Regulation (Oil) Ordinance of 1907.[904] Both pieces of legislation laid a basic legal framework for the development and production of petroleum resources.[905] The law of 1907 stipulated that only British subjects or companies controlled by British subjects would be eligible to explore for Nigerian oil resources. Ironically, the first company ever to undertake oil exploration activities in Nigeria was the German Bitumen Company in 1908 in what is now called the Ondo State.[906] Section 6(1)(a) of the Mineral Oils Ordinance of 1914 (Cap. 120, Laws of the Federation of Nigeria, 1958) also disqualified non-British companies from receiving exploration licenses. However, in 1958 this section was repealed by section 2 of the Mineral Oils (Amendment) Act of 1958, and this broke down the monopoly which Shell-BP had as a result of the 1914 Act and thus opened opportunities for competitors to apply for and be granted petroleum licenses.

(CLN) and Total (formerly Elf Petroleum Nigeria Limited or EPNL). These international companies accounted for at least 83 percent of Nigeria's total petroleum production in 2008 thus affirming the fact that the Nigerian petroleum industry is dominated by few international firms. However, new players, including Korean oil company, Addax Petroleum Development (Nigeria) Limited, China National Oil Company, Express Petroleum, Cavendish, AENR, Consolidated Oil Limited (Conoil), and AMNI International (AMNI), have recently emerged. See Ariweriokuma S *The Political Economy of Oil and Gas in Africa: The Case of Nigeria* (New York: Routledge 2008) 6.

[903] See Omorogbe n 897 *supra* at 273.

[904] *Ibid*.

[905] *Ibid*.

[906] See Omorogbe n 897 *supra* at 274; Ebeku n 885 *supra* at 67; and Atsegbua L 'The Development and Acquisition of Oil Licences and Leases in Nigeria' March 1999 *OPEC Review* 57.

The 1914 Act made provision for three kinds of licenses, namely, an oil exploration license (OEL), which entitled the holder to carry out geological and geophysical exploration for oil over the land and territorial waters of Nigeria and was valid for only one year with possible extension for another year; an oil prospecting license (OPL) which granted the holder an exclusive right to carry out geological and geophysical investigations in their concession areas, to drill, export, and refine the petroleum, and was valid for three years onshore and 4 years offshore; and an oil mining lease (OML) which was valid for a renewable term of 30 years for onshore production and 40 years for offshore production, and it entitled the lessee to an exclusive right to take every measure necessary to exploit and develop a petroleum industry in its concession area.[907]

After these first laws, a host of legislation was passed regulating the activities of the oil industry.[908] Several of these were repealed by the Petroleum Act 1969 and the Petroleum (Drilling and Production) Regulations.[909] Both of these have laid a foundational legislative framework for the current petroleum development and production.[910]

4.3.1.2. Nigeria's Current Petroleum Endowment and Legislative Framework

The modern day Federal Republic of Nigeria is Africa's largest and most complex country. It is a country with a vast land area situated in the West of Africa. It is bordered by the Republics of Chad and Niger to the North, by the Republic of Benin to the West,

[907] See Atsegbua n 914 *supra* at 59 to 62.

[908] One of these laws included the Petroleum Profits Tax Act of 1959 which, by an amendment in 1975, imposes tax and royalty rates of 85 per cent and 20 per cent respectively. See Omorogbe n 897 *supra* at 274 at footnote 4.

[909] See Omorogbe n 897 *supra* at 274.

[910] See Omorogbe n 897 *supra* at 274.

by the Republic of Cameroon to the East, and by Atlantic Ocean to the South.[911] It is the most populous[912] and multi-ethnic[913] country in Africa, with a population of 171 million people, from over 250 tribes,[914] occupying a land surface area of 923,768 km2, out of which inland waters are estimated to occupy 13,000 km2.[915] It has a coastline of approximately 853 km facing the Atlantic Ocean. The terrestrial portion of this zone is about 28,000 km2 in area, while the surface area of the continental shelf is 46,300 km2.[916]

Nigeria is a country generally rich in various natural resources.[917] However, petroleum and natural gas are the country's major mineral products.[918] As Ogri correctly indicates, it has abundant oil and natural gas.[919] Of Nigeria's 36 states, nine states located in the three geopolitical zones of South West, South-South (Niger-Delta), and the South East, are classified as oil and gas producers. The South-South geo-political zone is the

[911] See Nwilo & Badejo n 902 *supra*.

[912] See Evo CJ 'Green Crimes, Petro-violence and the Tragedy of Oil: The Case of the Niger-Delta in Nigeria' 4(1) (2009) *In-Spire Journal of Law, Politics and Societies* 40 at 46; Ihonvbere & Shaw n 891 *supra* at 145; and Paki & Ebeinfa n 910 *supra* at 140.

[913] See Osaghae EE 'Human Rights and Ethnic Conflict Management: The Case of Nigeria' 33(2) (1996) *Journal of Peace Research* 171.

[914] See Bisina J 'Resource Exploitation in Nigeria' *Pambazuka News* 167, 29 July 2004.

[915] See Nwilo & Badejo n 902 *supra*.

[916] *Ibid*.

[917] These include mangrove, brackish swamp and rain forests, crude oil, natural gas, and solid minerals such as bitumen, tin, limestone, columbite, iron ore, and coal.

[918] See McPherson C 'Taxation and State Participation in Nigeria's Oil and Gas Sector' a Report of the Joint United Nations Development Programme (UNDP)/ World Bank Energy Sector Management Assistance Programme (ESMAP), August 2004 at p 5, available at http://wbln0018.worldbank.org/esmap/site.nsf/files/057-04+Nigeria+Taxation_McPherson.pdf/$FILE/057-04+Nigeria+Taxation_McPherson.pdf (last visited 15 October 2011).

[919] See Ogri n 895 *supra* at 11.

dominant zone with six producing states[920] and accounting for 91.5 per cent of the national gross oil production.

The country's economic growth primarily comes from the oil sector. It has large reserves of crude oil and natural gas.[921] Africa's 'proven' reserves were estimated to be 112.2 billion barrels in 2004 (9.4 per cent of the world total proven reserves), while Nigeria's oil reserves are estimated to be at least 35.3 billion barrels, with a production level of 2.2 mmbd.[922] As far as gas is concerned, it was, at the same period, estimated to have at least 124 tcf gas reserves, while producing at least 1300 bcfd.[923] In 2005 the estimate of Nigeria's proven oil reserves increased to 35.2 billion barrels, while proven natural gas was estimated to be 176 tcf, making the country one of the top ten natural gas endowments in the world, and the largest on the African continent.[924] On 1 January 2009, the estimated crude oil and natural gas reserves were 36.2 billion barrels and 182.4 tcf respectively.[925] In 2010 the total crude oil and condensate production for the year was reported to be 896,043,406 barrels with a daily average of 2.45 mmb/pd. In the same year, the natural gas produced, by eleven oil producing companies in the country, totaled 2,392.84 Billion Standard Cubic Feet (BSCF). This was a significant increase of 22.22 percent over the 2009 production.[926]

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[920] The Delta, Bayelsa, Rivers, Akwa Ibom, Cross River, and Edo states.

[921] See Olaloku *et al* n 904 *supra* at 55.

[922] See Cordesman AH & Al-Rodhan KA 'The Changing Risks in Global Oil Supply and Demand: Crisis or Evolving Solutions?' First Working Draft: October 3, 2005 *Center for Strategic and International Studies Arleigh A. Burke Chair in Strategy*, available at http://csis.org/files/media/csis/pubs/050930_globaloilrisks.pdf (accessed 15 October 2011) at 55.

[923] See McPherson n 926 *supra* at 1.

[924] This is according to the *Oil and Gas Journal* (2005) as referred to by Nwilo & Badejo n 902 *supra*.

[925] See Illadere & Suberu n 889 *supra*.

[926] See the NNPC's *2010 Annual Statistical Bulletin* available at http://www.nnpcgroup.com/Portals/0/Monthly%20Performance/2010%20ASB%201st%20edition.pdf (accessed 14 August 2011).

Nigeria was once the seventh oil producing state in the world.[927] Later as Ogri indicated, it ranked ninth in position in the world's production of crude oil'.[928] It is currently Africa's leading oil producer[929] and ranks eleventh as an oil producer in the world. In the words of Young, 'Nigeria is the oil giant of sub-Saharan Africa'.[930] Some analysts indicate that there are many new reserves of oil found in, amongst others, offshore Nigeria, which are yet to be discovered.[931] Nigeria is a very significant global player in the petroleum industry and, like Angola, is also a member of important bodies such as the World Petroleum Congress, OPEC and APPA.[932] It was once ranked sixth in OPEC.[933]

Nigeria is currently the eighth largest oil exporter in the world[934] and the tenth largest holder of oil reserves in the world.[935] It is currently the fourth largest exporter of oil to the USA.[936] Its oil and gas resources are, however, concentrated in the Niger-Delta.[937] This

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[927] See Inokoba & Imbua n 903 *supra* at 101.

[928] See Mähler n 902 *supra* at 14. See also 'Opportunities for Danish offshore companies within the Nigerian oil and gas sector' available at http://www.offshorecenter.dk/filer/files/Project/Internationalisering/OCD%20report-Nigerian.PDF (accessed 20 October 2011).

[929] See Ogri n 895 *supra* at 15.

[930] See Young DJ 'Energy Development and Maritime Boundary Dispute: Two African Examples' 19 (1984) *Texas Law Journal* 437 at 443.

[931] See Busch GK 'Black Gold' available http://www.nigeriavillagesquare.com/articles/dr-gary-k.-busch/index.php (accessed 20 October 2011).

[932] This association was formed in 1987 and initially comprised of Algeria, Angola, Benin, Cameroon, Congo, Egypt, the Ivory Coast, Gabon, Libya, Nigeria, and Zaire, See Ikein n 891 *supra* at 6.

[933] See Ikein n 891 *supra* at 6.

[934] See Mähler n 902 *supra* at 14.

[935] See Thurber *et al* n 417 *supra* at 5.

[936] See Gonzalez n 535 *supra* at 67. See also Ogri n 895 *supra* at 15.

[937] According to Gonzalez, the Niger Delta 'is home to at least a quarter of Nigeria's total petroleum output'. See Gonzalez n 944 *supra* at 67. See also Ogri n 895 *supra* at 20. There is

has been the case for at least the last three decades. For instance, in 1979, one commentator wrote:

> [t]he American demand for Nigeria's crude oil has been growing rapidly, especially in the last five years. Among non-European consumers, the U.S.A. is the most important consumer of Nigeria's crude oil. The volume of its consumption rose from 0.9 million tons in 1965 to about 31 million tons in 1974, thereby replacing Britain as the largest single consumer.[938]

As far as natural gas is concerned, Nigeria is also substantially endowed.[939] In 1987, Nigeria's proven reserves of natural gas were estimated to be between 90 and 140 tcf of which 30.4 tcf was associated gas and 57.6 tcf was non-associated gas.[940]

However, due to its heavy oil dependency,[941] like Angola, Nigeria faces serious socio-political and socio-economic problems,[942] including the notorious 'resources curse', as it

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no general agreement as to the delimitation of the Niger Delta. The Nigerian Federal state considers it to be a political are made up of nine producing states of Abia, Akwa-Ibom, Bayelsa, Cross-River, Delta, Endo, Imo, Ondo, and Rivers. However, the inclusion of Abia, Imo and Ondo states has been vehemently criticised as a ploy and grand design by the political class of the majority ethnic nationalities of the Igbo and Yoruba descents to lay claim to the benefits accruing from the vast hydrocarbon resources located in the Niger Delta. Inokoba & Imbua argue that the Niger Delta is delimited by geography rather than politics although there are vast political implications. To support their argument, they also cite the World Bank description of the Niger-Delta and the Willink Commission Report. See Inokoba & Imbua n 903 *supra* at 103.

[938] See Olaloku *et al* n 904 *supra* at 59.

[939] See Omorogbe n 897 *supra* at 283.

[940] *Ibid*.

[941] See Aturu n 904 *supra*.

[942] See Ploch L 'Nigeria: Elections and Issues for Congress' *US CRS (Congressional Research Service) Report for Congress* Prepared for Members and Committees of Congress 1, available at http://www.fas.org/sgp/crs/row/RL33964.pdf (accessed 15 August 2011).

is commonly referred to in literature,[943] poverty, and environmental degradation.[944] As Duru highlights, 'over 50 years of oil exploration and exploitation have occasioned environmental degradation and pollution, resulting in excruciating and brutalising poverty, unemployment, disease, health hazards and even death among people living in this region'.[945] According to Azigbo, the major culprits in these ugly situations are the MOCs and the insensitivity of the successive federal government authorities.[946] Evidently, the legal and regulatory frameworks are decisive factors in the success or failure of oil and gas industries in Nigeria to respond to developmental challenges. Although 40 per cent of government revenues in 2011 in Nigeria came from the oil sector, it is reported that to this day 80 per cent of Nigerians still live on less than two US dollars a day.[947] Furthermore, there is continuous unrest in Nigeria's oil-rich Niger-Delta.[948]

4.3.2. The Current Legal Framework

[943] See Duru EJC 'The Politics of Oil in the Niger Delta' in Ojakorotu V & Gilbert LD (eds) *Checkmating the Resurgence of Oil Violence in the Niger Delta of Nigeria* (2010) chapter 8.

[944] See Nwapi n 894 *supra* at 184.

[945] See Duru n 951 *supra*.

[946] See Azigbo O 'Paying lip service to the Niger Delta Development', Vanguard (Lagos), 18 February 2008 18, available at http://www.e-ir.info/2010/12/05/the-politics-of-oil-in-the-niger-delta/ (accessed 20 February 2012).

[947] See A Report by the *Global Witness* January 2012 titled 'Rigged: the Scramble for Africa's Oil, Gas and Minerals', available at http://www.globalwitness.org/rigged/rigged.pdf (accessed 29 February 2012).

[948] See generally, Soreh CW 'Corporate Social Responsibility and Youth's Restiveness in Oil Rich Niger Delta Region of Nigeria' 1(7) (2012) *Kuwait Chapter of Arabian Journal of Business and Management Review* 58.

Currently exploitation activities of petroleum resources in Nigeria are regulated through a legislative framework consisting of the constitution,[949] a principal petroleum law, namely, the Petroleum Act,[950] other statutory laws.[951] This is supplemented by regulations. One example of such regulations is the Petroleum (Drilling and Production) Regulations, 1969, as amended. In terms of this regulatory framework, ownership of oil and gas resources in Nigeria is vested in the Nigerian Federal Government.[952]

The Nigerian constitution makes provision for state ownership of petroleum resources in Nigeria.[953] Section 44(3) of the constitution vests 'control of all minerals, mineral oils and natural gas in, under or upon any land in Nigeria, its territorial waters, and Exclusive Economic Zones [EEZ],' in the Federal government, which shall manage the same in a prescribed manner. This constitutional provision is further strengthened by item 39 of the Second Schedule to the constitution, which confers the power to make laws on mines, minerals, including oil fields, oil mining, geological surveys, and natural gas, on the central legislature.

The Petroleum Act provides for the exploration of petroleum from the territorial waters and the continental shelf of Nigeria. It also makes provision for state ownership of petroleum resources. In terms of the long title of the Act, ownership of petroleum

[949] The Constitution of the Federal Republic of Nigeria 1999.

[950] See the Petroleum Act1969. See also Kolo A 'Legal Issues Arising from the Termination of Oil Prospecting Licences by the Nigerian Government' 19(2) (2001) *JENRL* 164 at 171.

[951] These include the Petroleum Profits Act of 1959 (PPTA, Cap 354), which specifies the applicable tax rates on the chargeable or net profits companies engaged in petroleum operations; the Petroleum Liquefied Natural Gas (LNG Act of 1993), the Land Use Act of 1976, for government control over land use and transfer; the Oil Pipelines Act of 1978; the Oil Navigable Waters Act of 1979, the Oil Terminal Dues Act No. 9 of 1969; the Nigerian National Petroleum Corporation Act of 1990; and the Associated Gas Re-injection Decrees.

[952] See Illadere & Suberu n 8892 *supra*; and Gbite A 'The Legal Framework for Natural Gas Utilisation in Nigeria' a paper presented at the International Bar Association Conference, held in Abuja, Nigeria from the 27th to the 28th of November 2000 at 4.

[953] See s 44(3) of the Nigerian Constitution of 1999.

resources vests in the federal government. Section 1 of the Act reinforces this principle by providing that 'the entire ownership and control of all petroleum in, under or upon any lands to which this section applies shall be vested in the State'. Such land includes all land (as well as land covered by water) which is in Nigeria; or is under the territorial waters of Nigeria; or forms part of the continental shelves; or forms part of the EEZ of Nigeria.[954] The issue of ownership of crude oil in Nigeria being vested in the federal government was also confirmed by the judiciary in *South Atlantic Petroleum Ltd v Minister of Petroleum Resources.*[955]

The Nigerian federal government thus have an exclusive right to petroleum resources. Interested persons are granted licenses or leases to explore, prospect or mine oil and gas.

4.3.3. Types of Licences in Nigeria

Section 2(1) of the 1969 Act further provides that Nigerian citizens or companies incorporated in Nigeria[956] may be granted the following rights:

- a licence to be known as the oil exploration licence (OEL), to explore (that is, to make geological and geophysical studies but not the right to drill)[957] for petroleum,[958] on specified[959] non-exclusive area,[960] valid for one year, subject to

[954] See s 1(1) of the Petroleum Act. See also Adaralegbe AG 'Mergers in International Petroleum Industry: Legal Aspects on the Operations of Petroleum Development Companies in Nigeria' 21(1) (2003) *JENRL* 325 at 341; and Kalu & Steward n 32 *supra* at 257.

[955] (2006) 10 CLRN 122.

[956] See s 2(2) of the Petroleum Act, 1969.

[957] See Asada n 896 *supra*.

[958] See s 2(1)(a) of the Petroleum Act, 1969. See also generally Atsegbua n 914 *supra* at 64-66.

[959] See Item 1 of the Petroleum Act, 1969.

[960] The granting of this license does not preclude the granting of another oil exploration license, oil prospecting license, or oil mining lease in the same area. Neither does it automatically entitle

one year renewal on condition that the licensee has fulfilled all obligations in terms of the Act or otherwise, the Minister is satisfied with the work done and the reports submitted, and the application for renewal is made at least three months prior to the expiry of the license;[961]

- a license to be known as an oil prospecting license (OPL) which entitles the holder to an exclusive right[962] to explore and prospect for petroleum within a specified area, valid for a renewable maximum period of five years.[963] This license confers on the holder the exclusive right to explore, carry away, and dispose petroleum discovered and won in an area covered by the lease.[964] It thus involves an obligation on the part of the licensee to meet certain minimum drilling requirements;[965] and
- a lease, to be known as an oil mining lease (OML), which entitles the holder to an exclusive right[966] to search for, win, work and carry away, and dispose of petroleum,[967] granted only to the holder of an OPL who has satisfied all the conditions imposed on the OPL or otherwise imposed on him by the Act, and discovered oil in commercial quantities,[968] valid for renewable maximum period of

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the holder to an oil prospecting license or oil mining lease. See Item 2 of the First Schedule of the Petroleum Act, 1969.

[961] See Item 3 of the Petroleum Act, 1969.

[962] See Item 5 of the Petroleum Act, 1969.

[963] See s 2(1)(b) of the Petroleum Act, 1969.

[964] See Asada n 896 *supra*.

[965] *Ibid*.

[966] See Item 11 of the First Schedule to the Petroleum Act, 1969.

[967] See s 2(1)(c) of the Petroleum Act, 1969.

[968] See Item 8 of the First Schedule to the Petroleum Act, 1969. Oil shall be deemed to have been discovered in commercial quantities if the Minister, upon evidence adduced by the licensee, is satisfied that the licensee is capable of producing at least 10 000 barrels per day of crude oil from the licensed area. See Item 9 of the First Schedule of the Petroleum Act, 1969.

twenty years,[969] and subject to a relinquishable area of one half of the lease area after a period of ten years after the grant of the lease.[970]

The Petroleum Act provides thus for 3 types of licences for upstream operations: the OEL, the OPL, and the OML. In practice, OEL's are no longer issued. Typical of the British licencing model, only citizens of Nigeria and companies incorporated in Nigeria can be granted an OPL or OML or allowed to hold or acquire any interest in the licence or lease. Nigerian company law does not permit branch operations. As such, any foreign company that intends to do business in Nigeria or to hold any interest in an OPL or OML is required by law to establish a subsidiary or affiliate company in Nigeria for that purpose. An OPL confers on the grantee the exclusive right to conduct petroleum operations in the OPL area and to produce and dispose of the produced hydrocarbons. The duration of an OPL for onshore areas and shallow waters is 5 years, inclusive of any period of renewal, while the duration of an OPL for deep offshore and inland basins is 10 years. An OML confers on the grantee the exclusive right to search for, win, work, carry away and dispose of all petroleum in, under or throughout the area covered by the OML. An OML confers essentially the same rights as an OPL but the duration of an OML is 20 years and may be renewed for a further period of 20 years. The applicant for an OML must be a holder of an OPL who has discovered crude oil in commercial quantity. Commercial quantity is deemed to have been achieved if the OPL holder can satisfy the authorities that a production of 10,000 bpd of crude oil can be obtained from the OPL area. Unlike what obtains in some other jurisdictions, there is no special prospecting licence or mining lease for gas. The rights granted to the holder of an OPL or OML apply both to oil and gas.

[969] See item 10 of the First Schedule to the Petroleum Act, 1969. The lease of an OML shall entitled to apply in writing to the Minister, not less than twelve months before the expiration of

[970] See Item 12 of the Petroleum Act, 1969.

As Asada points out, it is important to note that 'premiums are attached to the granting of any or all of the above concession agreements, the exact amount being set by the government according to what the market will bear at the time'.[971]

It is also important to note that rights acquired by virtue of the licenses may be revoked.[972] The circumstances for revocation are contained in paragraph 23(1) of the schedule to the Act.[973] Where there is s decision to revoke, the holder of the license or lease shall be informed of the grounds for such revocation and be given an opportunity to put forward its explanations.[974] If the explanation is taken and accepted, the right might be restored.[975] Where, however, there is insufficient explanation, the revocation takes effect and the notice of revocation is gazetted.[976]

The current legal framework endorses the policy of state ownership of petroleum resources since no person or company can explore for or produce oil without a license granted by the federal government.[977]

4.3.4. Non-decentralised Title over Oil and Gas Resources or Federal Control

As previously noted, the Nigerian constitution provides that the entire property in and control of all minerals, mineral oils and natural gas in, under or upon any land in Nigeria or in, under or upon the territorial waters and the EEZ of Nigeria shall vest in the federal government of Nigeria and shall be managed in such manner as may be prescribed by the National Assembly.

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[971] See Asada n 896 *supra*.

[972] See Nlerum n 900 *supra* at 154.

[973] *Ibid*.

[974] *Ibid*.

[975] *Ibid*.

[976] *Ibid*.

[977] See Ogri n 858 *supra* at 16.

The current legal arrangement regrettably excludes local communities and local authorities from oil exploration and production.[978] This legal position has been judicially approved in *AGV v Abia State*.[979] As noted by Sagay, the issue of denying the people of the oil bearing communities the right to any direct access to the resources found on their land and their attendant exclusion from any control over the same is contentious and explosive in the national political agenda of Nigeria.[980] Asada also points out that 'the law is not clear on the emphatic issue of compensation to individuals or community on whose land oil was discovered and taken away by government. This issue of compensation has for quite some time now, threatened the peaceful coexistence of this [Nigerian] nation as a sovereign state'.[981] According to Sagay,

> having been dispossessed for more than 30 years of their rights over their natural resources, the nationalities of the Niger-Delta are now demanding those rights back. This provision has merely worsened an already tense situation. It is most unlikely that the good government, order and peace of Nigeria (see s 4(2)) of the 1999 Constitution) can be achieved, if the Federal Government, claims 100% ownership of Niger-Delta's natural resources. Obviously, this item (39 on the Exclusive Legislative list) and section 44(3) have to be radically modified or repealed completely if there is to be unity progress and justice in this country.[982]

4.3.5. Contractual Arrangements

The legal regimes for the regulation of petroleum exploration and production are often classified into two broad categories, namely, the concession system and the contractual system.[983] Although these categories are theoretically different, some regimes have

[978] See Aturu n 867 *supra* at 2.

[979] (2002) 6NWLR (Pt. 674) 542.

[980] See Sagay I 'A General Overview of the 1999 Constitution' a paper presented at a retreat organised for the Joint Constitutional Committee Review of the National Assembly in Minna on the 16th of January 2009.

[981] See Asada n 896 *supra*.

[982] See Sagay n 988 *supra* as quoted by Aturu n 904 *supra* at 2.

[983] See Tordo *et al* n 791 *supra* at 8.

adopted a blend or mixture of the two and this is referred to as hybrid systems. Like Angola, as shown in the previous chapter, and other countries,[984] Nigeria has also adopted a hybrid system.

As Aturu indicates, 'exploration and production contracts in the oil industry enjoy a pre-eminent status in the scale of preference of the Nigerian state'.[985] These contractual arrangements are governed by both the common law and statutes.[986] The common law main types of contracts are those which regulate the JV arrangements (i.e., the OMLs, the participation, operating arrangements and the Memorandum of Understanding (MOU)), service contracts, and the PSCs.[987] Prior to 1993, the most common contractual arrangement in Nigeria was the JV.[988] However, the difficulties in making due contractual payments under the JV arrangement and the need to open new frontiers, has increasingly led the Nigerian NOC, the NNPC, to enter into more PSCs, albeit underdeveloped.[989] Some of the statutes that have a direct impact on the contractual arrangements include the constitution, the Petroleum Act and the Petroleum Profits Tax Act.

4.3.5.1. The JV Arrangement

The JV is not a separate type of petroleum regulation. Rather, it is a partnership arrangement, wherein the state, either directly or through its NOC, receives an equity or

[984] These include Malaysia, Indonesia, India, China and Russia. See Tordo *et al* n 791 *supra* at 8.

[985] See Aturu n 993 *supra*.

[986] See Aturu n 993 *supra*.

[987] See Aturu n 993 *supra*.

[988] See Aturu n 904 *supra*.

[989] See Adepetun S 'Production Sharing Contracts – the Nigerian Experience' 13(1) (1995) *JENRL* 21 at 22.

ownership interest in the rights and obligations of a contractor or a concession.[990] The state may achieve these in a number of ways including participation as is the case in Saudi Arabia; nationalisation or partial nationalisation; or enforced participation as is the case in Libya, Nigeria the UK, and Norway.

The JV is thus either an incorporated or unincorporated entity whereby each partner shares the exploration and financial risks of the operation, and contributes to the payment of all costs when called upon ('cash calls') in the proportion of its participating interest.[991] Ownership, funding and production sharing are all based on each partner's equity share.

In a Nigerian petroleum JV, two or more oil companies enter into an agreement for a joint development of a jointly held OPL or OML. Each partner in the JV contributes to the operating costs and shares the benefits or losses of the operations in accordance with its proportionate equity interest in the venture.

Under the JV arrangements, there are three separate agreements that define the relationship between the Nigerian federal government, through the NNPC, and the oil producing companies.[992] These are:

- the participation agreement;
- the JOA; and
- the heads of agreement.[993]

The participation agreement sets out the respective interests of the oil companies and the state in the concession, while a JOA governs the parties' administrative and operational relations, including matters such as who is the operator and what are his

[990] See Barrows n 82 *supra* at 28.

[991] See Omorogbe n 897 *supra* at 280; and Barrows n 82 *supra* at 28.

[992] See Omorogbe n 897 *supra* at 280. See also Ikein n 8914 *supra* at 11.

[993] See Omorogbe n 897 *supra* at 280.

obligations; the work programme, plans and expenditure; the authority of the operating management committee and its sub-committees (that is exploration, technical, finance, services, engineering, production, and public affairs); the right of assignment by either party; off-take, scheduling and lifting procedures; accounting procedures; project, contract procedures; and communication procedures.[994]

The interest acquired by the government of Nigeria through the NNPC is referred to as 'participating interest' in the OMLs, the fixed and movable assets of the company in Nigeria, and the working capital applicable to the operations of the OMLs.

The JOA spells out the legal relationships between the owners of the leases or concessions and lays down the rules and procedures for the joint development of the area concerned, and property jointly owned by the two parties. In a nutshell, it contains details as to who is the operator, what operations can be performed without special permissions etc.[995] A joint management committee may be established to vote on important decisions including the future course of the operations.

The heads of agreement provides, inter alia, that there shall be undivided interests in the rights granted by the applicable OMLs with respect to petroleum under the contract area, and that each interest owner will share therein to the extent of its equity participation.

The commercial terms of the JV's are governed by an MOU which modifies the fiscal regime by providing fiscal incentives to ensure that the oil company realises a minimum profit margin and a bonus for additions to oil reserves. The MOU thus provides an overall structure for allocating oil income among the JV partners, including payment of taxes and royalties as well as industry profit margin.

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[994] See http://www.offshorecenter.dk/filer/files/Project/Internationalisering/OCD%20report-Nigerian.PDF (accessed 20 October 2011).

[995] See Barrows n 82 *supra* at 30.

Like the legislative framework,[996] a common feature of all oil and gas contracts in Nigeria is that the recitals begin by emphasising the legal position that the state is 'vested with the entire ownership and control all petroleum in, under or upon any land which is in Nigeria or forms part of the continental shelf of Nigeria'.[997]

4.3.5.2. The PSCs/PSAs

The concept of PSCs originates in Indonesia in 1967.[998] It was initially utilised for agricultural purposes.[999] However, it soon became extremely popular in several countries in the world, including Nigeria and Angola, in the field of petroleum exploration and production.[1000] In Nigeria, this agreement was born in response to funding problems that were faced by the old JV arrangements as well as government's desire to open up the sector for more foreign participation. As it is clear from the phrase itself, a PSC refers to contractual arrangements where the FOCs and the host government share the

[996] See particularly s 44(3) of the Nigerian Constitution.

[997] See Aturu n 904 *supra* at 2. See also Omorogbe n 897 *supra* at 342.

[998] See Atsegbua n 42 *supra* at 13. See also Machmud TN 'The Production Sharing Contract in Indonesia' in Wälde Ngidi n 62 *supra* at 113; Ajayi O 'Resource Taxation as a Tool for Development' January 2009 available at http://works.bepress.com/ oladiran_ajayi/ 1 (accessed 30 November 2011); Berger KP 'Renegotiation and Adaptation of International Investment Contracts: the Role of Contract Drafters and Arbitrators'; 36 (2003) *Vanderbilt Journal of Transnational Law* 1347; Hossain n 405 *supra* at 138; Mikesell RF *Petroleum Company Operations & Agreements* (1984) 59; Smith & Dzienkowski n 39 *supra* at 37; Paliashvili I 'The Concept of Production Sharing', available at http://www.rulg.com/documents/The_Concept_of _Production_Sharing.htm (accessed 30 November 2011); and Maniruzzaman AFM 'The New Generation of Energy and Natural Resource Development Agreements: Some Reflections' (1993) *JENRL* 207 at 213.

[999] See Barrows n 82 *supra* at 9.

[1000] For instance it is used in Peru, Malaysia, Guatemala, Libya, Egypt, Syria, Jordan, Bangladesh and the Phillipines. See Omorogbe n 897 *supra*; and Borrows n 82 *supra*.

output of the operation in predetermined proportions.[1001] According to Barrows, a PSC has three basic elements, namely, cost recovery, a production split between the oil company and the host government, and income tax.[1002] Johnston defines a PSC as follows:

> a contractual agreement between a contractor and a host government whereby the contractor bears all exploration costs and risks and development and production costs in return for a stipulated share of the production resulting from this effort.[1003]

Thus, in a standard PSC, the FOC or contractor supplies the funds for exploration and takes all the financial risks.[1004] The FOC is often in charge of the operations and management of the contract area and when a commercial discovery of oil is made, the company is entitled to recoup its investment from the crude oil produced.[1005] This is known as 'cost recovery'.[1006] The remainder is then shared between the NOC and the FOC in predetermined proportions.[1007] The amounts of crude oil involved in the production spilt are subject to income tax, with the contractor's share being paid by itself, or on its behalf by the NOC.[1008] The percentages of production set aside for cost recovery vary worldwide between 20 per cent and 40 per cent. A greater disparity exits worldwide between the ratios of production splits.[1009] These range from 81 to 90 per cent going to the NOC, with a corresponding 10 to 11 per cent accruing to the FOC in

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[1001] See Omorogbe n 897 *supra* at 279. See also Kiluange T 'The JDZ Model PSC: A Legal Analysis' *Juristep* at www.juristep.com; and Ikein n 891 *supra* at 14.

[1002] See Barrows n 82 *supra* at 9.

[1003] See Johnston D 2003 (b) *Os termos do Contrato de Partilha de Produção na Zona Conjunta de Desenvolvimento Nigéria – São Tomé e Príncipe*. New Hampshire, as quoted by Kiluange n 1009 *supra* at 3.

[1004] See Omorogbe n 897 *supra*.

[1005] *Ibid*.

[1006] See Barrows n 82 *supra* at 9.

[1007] See Omorogbe n 897 *supra*; and Barrows n 82 *supra* at 9.

[1008] See Omorogbe n 897 *supra*.

[1009] *Ibid*.

Egypt and Libya, to 15 per cent NOC-85 per cent FOC in Chile.[1010] The average production splits are however, not as striking as they seem due to the income tax rates which are borne by the parties and which therefore affects the production retained by them.[1011] With the exception of Libya where no tax is payable, PSCs are generally subject to a standard corporate income tax. Nigeria imposes a petroleum profits tax (PPT) of 85 per cent.

Although there are various models of PSCs/PSAs depending on different countries, onshore or offshore and other aspects, Kiluange identifies the following common characteristics of a PSC:

- the state remains the owner of the petroleum and gas produced; and the ownership of the production only transfers at the export point (usually established as the wellhead);
- the contractor pays a royalty, recovers the cost of operations, and then shares the remaining production with the government;
- remuneration of the contractor is made in kind, i.e. by the allocation of a "production-share" of the oil produced after the recovery of costs;
- the contractor pays taxes on its share of profit oil;
- the contractors provide all the equipment and technology, and bear the cost of operations and risks;
- equipment for the operations reverts to the government after installation, except if leased or rented; and
- usually, a joint committee (where both parties are represented) is established to monitor the operations, approve the working programme and authorise the necessary budgets.[1012]

[1010] *Ibid*.

[1011] *Ibid*.

[1012] See Kiluange n 1009 *supra* at 5. See also Atsegbua n 42 *supra* at 13 to 14; Nlerum n 900 *supra* at 157; and Atsegbua n 914 *supra* at 68.

This relatively new contractual arrangement has been regarded as a substantial departure from the old traditional concessions in that the host state remains the undisputed owner of the petroleum, with the foreign company being engaged only as contractors to perform certain specified tasks in return for a fee in kind.[1013] However, as Omorogbe indicates, 'the Nigerian experience with Production Sharing Contracts has been singularly unsuccessful'.[1014] Nlerum also indicates that most features of the Ashland/NNPC PSC were clearly inequitable and lopsided in favour of the oil company, Ashland Oil.[1015]

The first Nigerian PSC was adopted between 1972 and 1973 between the Nigerian National Oil Corporation (NNOC) (currently the Nigerian National Petroleum Company, or NNPC) and Ashland Oil.[1016] This was initially the only PSC in existence in Nigeria.[1017] The duration of this PSC was 20 years and the contract area extended over a massive two oil prospecting licenses.[1018] Title to petroleum passed to each party at the wellhead.[1019] Ashland was the designated operator and was financially responsible for acquiring all equipments for conducting operations in Nigeria, but these equipments became the property of the NNPC upon arrival in Nigeria. This was regarded as operating cost.[1020] Ashland had undertaken to prepare and carry out a training and recruitment programme for Nigerians throughout the value chain.[1021] All operating costs, including rents and royalties paid, and also interest costs on funds borrowed to conduct

[1013] See Kiluange n 1009 *supra* at 3.

[1014] See Omorogbe n 897 *supra*.

[1015] See Nlerum n 900 *supra* at 159.

[1016] See Adepetun n 997 *supra* at 22. See also Omorogbe n 897 *supra* at 279-280; Nlerum n 900 *supra* at 157; and Atsegbua n 914 *supra* at 68.

[1017] See Omorogbe n 897 *supra* at 281; Atsegbua n 42 *supra* at 14; and Barrows n 82 *supra* at 202.

[1018] See Omorogbe n 897 *supra* at 280.

[1019] *Ibid*. See also Atsegbua n 42 *supra* at 14.

[1020] See Omorogbe n 897 *supra* at 280.

[1021] *Ibid*.

operations were completely recoverable, out of the proceeds of sale of a maximum of the first 40 per cent of available crude oil.[1022] If the amount entitled to be deducted exceeds this percentage of crude oil (referred to in the agreement as cost oil), then the remaining excess could be recovered in succeeding years.[1023]

Fifty-five per cent of the remaining crude oil was allocated to Ashland and applied towards PPT.[1024] All additional amounts payable were to be paid by the respective parties in proportion to their 'participating interest shares'.[1025] The rest of the crude oil (27 per cent) was shared between Ashland and the NNPC according to their participating interests which were 35/65 until production exceed 50 000 bpd in which case the shares were 30/70 in favour of the NNPC.[1026]

This Nigerian variant of a PSC has received criticism from commentators who argue that Ashland has been allowed to earn 'windfall profits'.[1027] Thus it is not an efficient revenue earner for Nigeria. As a result of these criticisms, service contracts were introduced in Nigeria as some form of improvement on the PSCs.

Currently the PSC arrangement governs the understanding between the NNPC and all new participants in the new inland, deep, and ultra-deep water acreages.[1028] The terms and conditions in the current Nigerian PSCs are substantially the same, with some modifications.[1029] As Omorogbe indicates, generally they provide for tax oil in negotiated

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[1022] *Ibid*.

[1023] *Ibid*.

[1024] *Ibid*. See also Atsegbua n 42 *supra* at 14.

[1025] See Omorogbe n 897 *supra* at 280.

[1026] *Ibid*.

[1027] See Omorogbe n 897 *supra* at 281.

[1028] As of 2008 the NNPC has entered into production sharing contracts with Chevron in 7 blocks; Shell in 5 blocks; Statoil/BP in 3 blocks; Ashland and Elf in 2 blocks; and Abacan, Esso Expt, Mobil, Conoco, Allied Energy, and Agip in 1 block each.

[1029] See Omorogbe Y *Oil and Gas Law in Nigeria* (Malthause 2001) 51.

quantities to be allocated to the NNPC for payment of petroleum profit tax (PPT).[1030] However, these PSCs appear to have a PPT rate of 50 per cent.[1031] This rate, which is lower than the rate provided for in the Petroleum Profit Tax Act (Cap 340 Laws of the Federation of Nigeria Nigeria, the PPTA), was recently given legal validity by section 3(1) of the Deep Offshore and Inland Basin Production Sharing Contracts Decree 1999, which amended the PPTA.[1032] Royalty oil is also allocated to the NNPC for payment of royalty and concession rentals on behalf of itself and the contractor.[1033] Cost oil is also allocated to the contractor for the recovery of the operating costs, which are recoverable in the year of expenditure, and capital costs, which is recoverable in equal instalments over a five year period or over the remaining duration of the contract.[1034] The production splits varies from one PSC to another.

As Nigeria has adopted the British model of oil and gas licensing which follows competitive bidding, companies wishing to undertake oil operations (exploration, development, and production) in Nigeria (and in the Joint Development Zones (JDZs)) must submit an application for blocks in a licensing round.[1035] The blocks are awarded to the winning company or companies with the grant of an OPL, which may be converted into an OML, which grants the oil company the exclusive right, within the leased area, to explore, develop, and produce oil and gas.[1036] The terms and conditions of the OPL and the OML are negotiated and enforced by a PSC.[1037]

[1030] *Ibid*.

[1031] *Ibid*.

[1032] *Ibid*.

[1033] *Ibid*.

[1034] *Ibid*.

[1035] See Kiluange n 1009 *supra* at 6.

[1036] *Ibid*.

[1037] *Ibid*.

As indicated earlier, in terms of the PSC arrangements contractors bear all the cost of exploration and production without such cost being reimbursable if no commercial discovery is made in the acreage. The exploration cost is recoverable in crude oil in the event a commercial discovery is made. In essence in a PSC arrangement, the NNPC engages a competent contractor to carry out petroleum operations on the NNPCs wholly held acreage.[1038] The contractor assumes the initial exploration risk and recovers his costs if and when oil is commercially discovered and extracted.[1039]

However, currently emphasis is shifting from PSCs to service contracts.

4.3.5.3. Service Contracts

Service contracts are used in a number of countries worldwide including Nigeria.[1040] Under a service contract, the host country hires the services of an IOC which assumes the legal status of a 'contractor', which is merely a hired agent rather than a partner.[1041] Although provision can be made for an oil company to buy back an amount of crude oil recovered at international prices, as a general rule, the host country pays the oil company for its services in cash rather than in crude oil, which is the case with a PSC.[1042] Service contracts therefore, were introduce to gain access to relatively assured supplies of oil and natural gas.[1043] According to Atsegbua,[1044] the features of a service contract include the following:

[1038] See n 897 s*upra*.

[1039] *Ibid*.

[1040] Other countries include Abu Dhabi, Angola, Brazil, Iran, Iraq, Peru; Argentina, Saudi Arabia, Kuwait, Qatar, Bahrain, and Venezuela. Service contracts are divided into two, namely a risk service contract in terms of which the contractor provides the entire risk capital for exploration and production; and a pure service contract which is a simple contract of work. See Smith & Dzienkowski n 39 *supra* at 52.

[1041] See Atsegbua n 42 *supra* at 20.

[1042] See Barrows n 82 *supra* at 18.

[1043] See n 862 *supra*.

- the national oil company is the sole owner of the petroleum discovered and the role of the IOC is limited to making available its financial and technological resources;
- all risks and investments are placed on the IOC,[1045] which provides the capital for exploration.[1046] This means that, unless oil is found in commercial quantities, the IOC will not be reimbursed for the expenses it has incurred in its unsuccessful search;
- upon completion of the development phase (i.e. the beginning of commercial production) the HC's [host country's] national oil company is authorized to take over the operations;
- the amount provided by the IOC for exploration and exploitation are reimbursed over a number of years;
- the IOC is remunerated for its services in cash in accordance with a formula; and
- the IOC is authorized to buy and export a portion of the production at world price. However, in case of national crises, this right may be curtailed.[1047]

As Kiluange notes, under the service contract arrangement, the service company (contractor) bears all of the cost of exploration. If a commercial discovery is made and production results, the contractor recovers its costs from production and a fee per barrel of oil produced thereafter by the contractor.[1048] The contractor is subject to an income tax and all production belongs to the government.[1049]

By 2001 in Nigeria only one of the service contractors was operational with Agip Energy.[1050] However, currently the NNPC has eleven service contracts with Elf, Agip, Africa, and Nigus Petroleum Companies. Service contracts differ from PSCs in some respects. For instance, the duration of service contract is only five years, and each contract is in respect of one service block. The contractor pays all costs necessary for

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[1044] See Atsegbua n 42 *supra* at 20.

[1045] See also Barrows n 82 *supra* at 18.

[1046] This is referred to as a risk service contract. See Barrows n 82 *supra* at 18.

[1047] *Ibid*.

[1048] See Kiluange n 1009 *supra* at 4.

[1049] *Ibid*.

[1050] See Omorogbe n 1037 *supra* at 53.

exploration and development operations, and also any other obligation assumed under the contract. If no commercial discovery is made after the initial term, the contract is terminated and the exploration costs lost.

These costs are recoverable if a commercial discovery is made within the term of contract. In addition, the contractor is entitled to compensation for the risk taken, and to remuneration for services rendered. Although the service contractor has no title to the crude oil produced, he has an option to be repaid his investment and to take his remuneration in crude oil, as well as the first option to purchase the crude oil produced.

Unlike the PSC which has received scathing criticism, the service contract is commented by some commentators as being the most progressive of contractual arrangements currently in place in Nigeria. According to Omorogbe,

> a general analysis of the two contractual forms [PSC and service contract] however indicates that the service contract is better in all respects. Its terms are more favourable to the host country and its terms are clearer. Its short duration gives incentive to the company to explore and make a discovery early, unlike in the joint venture and the production sharing contract. In real terms however the service contract has made little difference to the Nigerian legal framework simply because there are so few contracts of this type. The joint venture is thereby presently the most important contractual form in Nigeria.[1051]

The author agrees that service contracts are more beneficial as the state, being the owner of petroleum resources, merely needs to source the services of technically competent and financially capable IOCs as service providers to explore and produce, at an agreed fee which is mostly in cash rather than in oil production which remains the property of the state in accordance with the doctrine of PSNR.

[1051] See Omorogbe n 897 *supra* at 282.

4.3.5.4. The Modern Concession

The Minister of Petroleum Resources may grant an OEL, to explore for petroleum; an OPL, to prospect for petroleum; and an OML, to search for, win, work, carry away and dispose of petroleum.

The Petroleum Act does not clearly state the legal character of the OPL or OML. Therefore is not quite clear as to whether or not it confers proprietary rights on the licence.[1052] However, it certainly confers an exclusive right on the licensee to explore for petroleum and to apply for an OML to develop the finds.[1053] This exclusivity means that no other investor would be granted a licence to explore for oil in the same area during the duration of the first licence.[1054] The licence may be alienated for value or transferred with the consent of the Minister.[1055] As Omorogbe correctly points out, the OML is by definition a concession.[1056] This is, however, a modern concession. It differs from a traditional concession in the sense that its terms have changed. The duration has been reduced to 20 years and the area has also been greatly reduced, covering only 500 square miles.[1057] As Omorogbe indicates, the oil company is usually given rights only in respect of one mineral resource, namely crude oil, and sometimes, natural gas.[1058] Financial obligations have been substantially increased, with oil companies being liable for rents, royalties, and a higher tax rates.[1059] At all times petroleum *in situ* remains the property of the state.[1060] However, the contractor still retains extensive rights over the

[1052] See Kolo n 958 *supra* at 169.

[1053] *Ibid*.

[1054] *Ibid.*

[1055] See Kolo n 958 *supra* at 165.

[1056] See Omorobe n 1000 *supra* 41.

[1057] See s 2(2) of the 1969 Petroleum Act.

[1058] See Omorogbe n 1000 *supra* at 41-42.

[1059] *Ibid.*

[1060] *Ibid*.

petroleum including the exclusive right to explore, search for, drill for, produce, store, transport, and sell petroleum found within the concession.[1061]

As to the legal character of these licenses, According to Kolo

> certainly, these rights are proprietary in nature as they confer on the licensee rights, which are of economic and commercial value. The minister cannot unilaterally change these and other consensual or contractual aspects – such as the fees and duration of the license -, nor can he unilaterally terminate them. Any unilateral alteration or termination of these elements should be regarded not only as a breach of contract but probably a confiscation of the license (if the breach renders the license economically valueless) contrary to section 44 of the 1999 Nigerian Constitution which guarantees the inviolability of the private right to property. For instance, a change in the fiscal regime – such as the amount of royalty or rent payable by the investor or a restriction on the development of the license area on environmental grounds which, renders the investment economically useless, might amount to an indirect expropriation of the investor's proprietary right. By abrogating or revoking the oil prospecting license of the licensees under consideration before the expiry of the said licenses, the Nigerian government could be said to have not only breached the contracts but confiscated same as its action has denied the licensees the rights they would have derived under the licenses. Hence the government's action has rendered the licenses economically and commercially useless.[1062]

However, the legal character of a Nigerian petroleum exploration and production licences does not differ substantially from that of the English petroleum licenses for the exploration, development and production of oil and gas resources as discussed earlier. They are both private contractual or property rights and public law issues and thus regulatory. The private law elements are the logical consequences of the contractual and commercial nature of the business. The public law elements are not only derived from the state ownership of petroleum resources, but also from the legislative and administrative regulation thereof, which entails not only the granting of licenses by an authoritative government body, but also the fiscal arrangements in terms of which the

[1061] *Ibid*.

[1062] See Kolo n 958 *supra* at 165.

non-state contractor is obliged to make payments to the state, be it in the form of taxes, signature bonuses, or royalties. The public law element or regulatory nature of the licenses is also evident from other state regulatory interventions in the form of environmental regulation and occupational health and safety. Most importantly, the discretionary nature[1063] of the Minister's power to grant or refuse to grant the license strongly suggests and supports its public law and thus its regulatory nature; and so is the fact that the Minister, by regulations prescribes model clauses.

4.3.6. State Participation in Nigeria

In response to OPEC's[1064] call for member states to establish NOCs, in 1971 the NNOC was established, 'to engage in prospecting for mining and marketing oil and all other activities with the petroleum oil ministry'.[1065] This entity was to serve as a vehicle for state participation in the oil industry.[1066] In 1973, in the aftermath of the oil embargo and the sudden sharp increase of crude oil prices, Nigeria became a significant player in the international crude oil market, invoked its first participation agreement, and thus acquired 35 per cent equity interest in all the oil and gas companies operating in Nigeria in the form of JV agreements. The equity interest was increased to 55 per cent in 1974 in the aftermath of OPEC resolutions mandating all its member countries to acquire majority participating interests of 51 per cent, in 1982, in petroleum. Due to jurisdictional problems between the NNOC and the Ministry of Mines and Power, in 1977,[1067] the NNOC was replaced with a new NOC, the NNPC.[1068] The NNPC was a merger between

[1063] See Kolo n 958 *supra*.

[1064] Since then, Nigeria has remained a key member of OPEC.

[1065] By Decree No. 18 of April 1971.

[1066] See Omorogbe n 1037 *supra* at 93.

[1067] See OPEC's Resolution XVI Article 90 of June 1968.

[1068] The NNPC was established by Decree 33 of 1977. Also see the long title and s 1 of the Nigerian National Petroleum Corporation Act No 33 of 1977 (Chapter 320 of the Laws of the Federal Republic of Nigeria 1990).

the NNOC and the Nigerian Ministry of Petroleum Resources and was formally restructured to facilitate the effective management of the oil and gas industry in general, and more specifically, of the government's equity interest in the JVs with IOCs. The new entity therefore combined the commercial functions of the NNOC and the regulatory functions of the Ministry. In 1979, the NNPC succeeded in raising the government equity participation in oil company shares to 60 per cent, thus strengthening its bargaining power, as it participates in all phases of petroleum development with specific agreements regarding profit sharing and conditions for royalty collection.

To this day, the NNPC is still Nigeria's statutory NOC primarily responsible for commercial activities in the oil and gas sector. Its activities span through the whole spectrum of the oil and gas value chain, from exploration, to production, refining, transportation, distribution, and supply of petroleum.[1069]

Through the NNPC, the Nigerian federal government is therefore a majority shareholder in all JVs in the country. The federal government therefore receives revenues accruing from its percentage of oil produced under the various contractual arrangements as discussed earlier.

[1069] Sometimes the NNPC participates directly in upstream petroleum arrangements with international oil companies (for example through joint ventures) and sometimes indirectly through subsidiaries such as the Nigerian Petroleum Development Company ('NPDC'), which is engaged in petroleum exploration and production; the Petroleum Products Marketing Company Limited ('PPMC'), which is responsible for the transportation of crude oil to the refineries and the transportation of petroleum products to depots located in various parts of Nigeria; the National Petroleum Investment Management Services ('NAPIMS'), which is responsible for overseeing the investments of the Federal Government of Nigeria in upstream petroleum operations conducted under joint ventures, production sharing contracts and other petroleum arrangements with the international oil companies ('IOCs').

However, similar to Sonangol in Angola, the biggest challenge of the NNPC is its dual role as both a commercial player and a regulator. The affairs of the NNPC are conducted by a board of directors chaired by the Minister of Petroleum Resources and includes the Director-General of the Federal Ministry of Finance and Economic Development, a managing director, and three persons appointed by the National Council of Ministers by reason that their ability, experience, or specialised knowledge of the oil industry or of business or professional attainments, are capable of making useful contributions to the work of the corporation.

The NNPC has undergone several practical rather than legal re-organisations.[1070] The first reorganisation which took effect in the 1980s following the Irekefe Commission of Enquiry which was set up to investigate an alleged disappearance of US$2.8 billion from the account of the NNPC, resulted in the creation of the Ministry of Petroleum and Energy and some independent and self-accountable subsidiaries.[1071] The second reorganisation occurred in 1988 and led to the separation of the Petroleum Inspectorate from the NNPC, its merger with the Ministry of Petroleum and its renaming as the Department of the Petroleum Resources.[1072] The NNPC was also declared to be a commercial entity with several subsidiaries.[1073] In 1995 the NNPC underwent another major practical reorganisation.[1074]

4.3.7. Nigeria's Fiscal Regime

As a result of the state's participation in the oil and gas exploration, development, and production, the petroleum sector in Nigeria has dominated the governmental fiscal revenues of Nigeria. Oil royalties, the PPT, domestic crude sales, and other petroleum

[1070] See Omorogbe n 1037 *supra* at 102.

[1071] *Ibid*.

[1072] *Ibid*.

[1073] *Ibid*.

[1074] *Ibid*.

revenues were only 26 per cent of federally collected revenues in 1970, but rose dramatically to 81 per cent in 1980.[1075] Oil is therefore a major source of revenue in Nigeria. This revenue comes from taxes, production share, royalties, bonuses, and rents.

In terms of taxation, which is a major revenue earner for the federal government from the petroleum sector, the principal legislation regulating the taxation of the operations of oil companies operating in Nigeria is the Petroleum Profit Tax Act (the PPTA).[1076] Other important petroleum tax laws include the Deep Offshore and Inland Basin Production Sharing Contract Decree 1999, which governs petroleum taxation under the Nigerian PSCs; and the Nigerian LNG (Fiscal Incentives Guarantees and Assurances) Decree No. 39 of 1990; and the Nigerian LNG (Fiscal Incentives, Guarantees and Assurances) (Amendment) Decree No. 113 of 1993. The latter two apply exclusively to liquefied natural gas (LNG). There is also an Associated Gas Framework Agreement. Like the UK, Nigeria also operates on the basis of royalty/ tax system.

The PPTA applies exclusively to the taxation of incomes of companies engaged in petroleum operations. Initially enacted in 1959, the PPTA has undergone several amendments. A petroleum profit tax (PPT) is levied in respect of petroleum operations under section 17 of the Petroleum Profits Tax Ordinance (No. 15 of 1959); and surtax is levied under section 17A of the Petroleum Profit Tax Ordinance. In respects of contractual arrangements other than PSCs rates are 65.75 per cent on oil company profits while they are amortising preproduction costs. The tax rate is 85 per cent for petroleum carried out under a JV with the NNPC or under any other contractual arrangement other than a PSC over five years.[1077] For PSCs, a PPT is levied at a flat rate of 50 per cent.[1078]

[1075] See Illadere & Suberu n 889 *supra*.

[1076] Cap 354 Laws of the Federation of Nigeria 2000.

[1077] See Omorogbe n 1037 *supra* at 70. See also Ajayi n 1006 *supra* at 21.

[1078] *Ibid*.

A royalty[1079] on oil is 20 per cent for onshore production, 18 and half per cent for offshore production where the water depth is less than 100 meters.[1080] Offshore production beyond that point bears a royalty of 16 per cent, thus reflecting an acknowledgement of higher costs for offshore production.[1081]

As indicated earlier, under PSCs, the oil production is shared between parties, after cost, taxes, and other expenses have been paid, and the government's share is thus a source of revenue for the federal government albeit currently insignificant. PSCs in Nigeria are also subject to non-refundable signature bonus payments.[1082] In terms of paragraph 31, Schedule 1 of the 1969 Petroleum Act, rents are payable in exchange for OPLs and OMLs.[1083]

In terms of the Associated Gas Framework Agreement (AGF), which came into effect in 1992, in order to encourage investment in the natural gas sector, the PPT for gas was set at 40 per cent.[1084] However, this was reduced to the standard company income tax rate of 30 per cent in 1998.[1085]

Petroleum resources are often concentrated within one or two regions of a larger state or federation.[1086] This is certainly true in Nigeria.[1087] The tax system should provide for

[1079] A royalty is amount payable to the owner of a natural resource as compensation for the exploitation of a non-renewable and irreplaceable natural resource. See Omorogbe n 1037 *supra* at 71.

[1080] See Omorogbe n 1037 *supra* at 72.

[1081] *Ibid*.

[1082] See Omorogbe n 1037 *supra* at 73.

[1083] *Ibid*.

[1084] See Omorgbe n 1037 *supra* at 77.

[1085] *Ibid*.

[1086] See Cordesman & Al-Rodhan n 930 *supra*.

an appropriate, acceptable, and stable division of tax revenues among levels of government.[1088] The Nigerian constitution mandates that 13 per cent of total oil revenue from onshore production be distributed to oil producing states. However, this is comparatively insignificant. For instance, in Brazil 52.5 per cent of royalties in respect of onshore production is distributed to producing states, 15 per cent to producing municipalities and only 25 per cent to the Brazilian federal government.[1089]

The strongest argument in favour of allocating oil and gas tax revenues to regional or local levels is because this is where many of the social costs of exploiting these resources are localised.[1090] These include environmental degradation and demands for special infrastructure.[1091]

4.3.8. Legal Reforms

Nigerian oil and gas law is currently undergoing significant changes. In 2010, the Petroleum Industry Bill (PIB) was introduced in parliament. However, the Bill is at the time of writing yet to be passed by Parliament. In addition to the PIB, on 22 April 2010, Nigeria's Acting President Jonathan Goodluck signed into law the Nigerian Oil and Gas Industry Content Act.[1092]

[1087] *Ibid*. In Nigeria oil from the southern Niger Delta region has accounted for over 75 per cent of the country's oil production since the 1970s, and the area's political history has been one of conflict and marginalisation.

[1088] See Cordesman & Al-Rodhan n 930 *supra.*

[1089] See Ajayi n 1006 *supra* at 32.

[1090] *Ibid*.

[1091] *Ibid*.

[1092] See the Nigerian Oil and Gas Industry Content Act signed on 29 March 2010 by President Goodluck Jonathan available at http://www.nogicjqs.com/NOGICD_Act_2010.pdf. Hereinafter, 'the Local Content Act'. See Uwanna I 'Empowering Nigerian through the Implementation of the Local Content Act' available at http://www.ta-ng.com/cms/images/publications/Local%20Content.pdf (accessed 20 June 2012); Obasi OI

4.3.8.1. The Nigerian Local Content/ Localisation

In the early 2000s Nigeria adopted the Nigerian Content Policy also called the Nigerian Content.[1093] This policy was primarily aimed at enhancing increased participation of local indigenous firms in the oil and gas industry.[1094] As Ihua and others indicate, 'the policy was targeted at transforming the industry through the development of an in-country capacity and indigenous capabilities in the area of manpower development, facilities and infrastructure towards ensuring that a higher representation of local indigenous companies participate actively in the industry.'[1095] Local content or Nigerian content has been defined as 'the quantum composite value added or created in the Nigerian economy through the utilization of Nigerian human and material resources for the provision of goods and services to the petroleum industry'.[1096] Local content therefore means the development of local skills, technology transfer, the use of local manpower and local manufacturing. It is important to note that the requirements of local content are specific only to the oil and gas industry. According to Ihua and others, although the local content policy has led to increased opportunities for small and medium sized enterprises (SMEs) in the industry and thus resulting in more contract awards in both cases, this cannot yet be considered as a higher SMEs participation because there are still several bottle-necks to the awards of such contracts such as tedious pre-qualification and tender processes.[1097] They also indicate that there are also other challenges such as

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'Analysis of the Nigerian Oil and Gas Industry Content Act 2010' available at www.ibanet.org/Document/Default.aspx?DocumentUid...8233...(accessed 20 June 2012).

[1093] See *Ihua et al* 'Nigerian Content Policy in the Oil and Gas Industry: Implications for Small to Medium-Sized Oil-Service Companies' in Sigué S (ed) *Repositioning African Business and Development for the 21st Century* Proceedings of the 10th Annual Conference 2009 IAABD 163 at 164.

[1094] *Ibid*.

[1095] *Ibid*.

[1096] *Ibid*.

[1097] See Ihua *et al* n 1101 *supra* at 167-168.

inadequate financing; thus stressing the need for commercial banks to do more in the area of granting single digit loans to companies and providing other services such as insurance, syndication in the case of projects requiring huge capital investments.[1098] With respect to job creation, Ihua and others indicate that although more contractual awards could lead to the creation of more jobs, in Nigeria this is still 'a drop in the ocean' considering the level of unemployment in Nigeria and the role small oil firms can play in reducing the rate.[1099]The JV and partnerships were also found to stimulate knowledge and technology transfers as well as capacity building.[1100]

To give effect to the Nigerian Content Policy, the Nigerian Oil and Gas Industry Content Act was enacted on 22 April 2010.[1101] This Act regulates all matters pertaining to Nigerian content in respect of all operations or transactions carried out in or connected with the Nigerian oil and gas industry.[1102] The scope of the Act therefore includes all activities carried out in the oil and gas industry. The 'oil and gas industry' is defined in the Act as all activities connected with the exploration, development, exploitation, transportation, and sale of Nigeria's oil and gas resources including upstream and downstream oil and gas operations.

Section 2 of the Local Content Act gives a strong directive which requires Nigerian content to be considered as an important element in the overall project development and management philosophy for project execution. It provides that-

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[1098] *Ibid*.

[1099] *Ibid*.

[1100] *Ibid*.

[1101] See Piper DLA 'Briefing Note: Implications of the Nigerian Oil and Gas Industry Content DevelopmentAct 2010' available at http://www.dlapipertradefinance.com/export/sites/dtf/downloads/Trade_Finance_Nigeria_Content_Act_May_2011.pdf (accessed 12 December 2012). See also Atsegbua LA 'The Nigerian Oil and Gas Industry Content Development Act 2010: An Examination of its Regulatory Framework' 36(4) (2012) *OPEC Energy Review* 479-494.

[1102] See the Long Title to the Bill.

> [a]ll regulatory authorities, operators, contractors, subcontractors, alliance partners and other entities involved in any project, operation, activity or transaction in the Nigerian oil and gas industry shall consider Nigerian content as an important element of their overall project development and management philosophy for project execution.

Furthermore, similar to the British Petroleum (Production) Act, 1934, Nigerian independent contractors are entitled to first consideration and preference in the award of oil blocks, oil fields licences, oil lifting licenses, and in all projects for which contract are to be awarded in the Nigerian oil and gas industry subject to fulfilment of such conditions as may be specified by the Minister.[1103] It also stipulates that exclusive consideration shall be given to Nigerian indigenous service companies which demonstrate ownership of equipment, Nigerian personnel and capacity to execute such work to bid on land and swamp operation areas of Nigeria for contracts contained in the schedule of services to the Act.[1104] In bidding for any license, permit or interest and before carrying out any project in the industry, an operator is required to submit a Nigerian Content Plan to the Nigerian Content Development and Monitoring Board[1105] demonstrating compliance with Nigerian content requirements of the Act.[1106] This is done as part of the conditions for bidding a license, permit or other oil and gas interest. Such a plan, showing compliance with the Nigerian content requirements of the Act, is also required to be submitted before the execution of any project in the industry. The plan must contain provisions giving-• first consideration to the utilisation of Nigerian goods and services; and

- first consideration for the training and employment of Nigerians in the work programme for which the plan was submitted.[1107]

[1103] See s 3(1) of the Local Content Act n 1109 *supra*. See also Uwanna n 1109 *supra* at 1.

[1104] See s 3(2) of the Local Content Act n 1109 *supra*.

[1105] This Board is established in terms of s 69(1) read together with s 4 of the Local Content Act n 1109 *supra* in order to guide, monitor, coordinate and implement the provisions of this Act.

[1106] See s 7 of the Local Content Act n 1109 *supra*.

[1107] See s 10(1) of the Local Content Act n 1109 *supra*.

The Board shall assess and review the plan and if it is satisfied that the plan complies with the provision of the Act, issue a certificate of authorisation to the operator for the project in question.[1108]

The Local Content Act specifically provides that all projects or contracts whose total budget exceeds $100 million, shall contain a labour clause which mandates the use of a minimum percentage of Nigerian labour in specific cadres as may be stipulated by the Board indicating the minimum number of Nigerians to be involved.[1109] It further stipulates that all operators and companies in the Nigerian oil and gas industry must employ only Nigerians in their junior and intermediate cadre or any other corresponding grades designated by the operator or company.[1110] This extends to professional and engaged technical services.[1111]

According to this law, the fabrication and welding activities of the operators and contractors must be carried out in-country.[1112] The Act also provides that any entity in any business or transaction in the Nigerian petroleum industry requiring legal services may only retain the services of a Nigerian legal practitioner or firm(s) of Nigerian legal practitioners whose office is located in any part of Nigeria.[1113] The operators are also expected to utilise Nigerian insurance companies and will only use offshore companies with the pre-approval of the National Insurance Commission.[1114] It also provides that the operators, contractors and subcontractors are required to maintain bank accounts within Nigeria retaining a minimum of 10 per cent of the revenues accruing from the Nigerian operations.[1115]

[1108] See s 8 of the Local Content Act n 1109 *supra*.

[1109] See s 34 of the Local Content Act and Uwanna n 1100 *supra*.

[1110] See s 35 of the Local Content Act 1109 and Uwanna n 1100 *supra*.

[1111] See ss 42 and 43 of the Local Content Act n 1109 *supra*.

[1112] See s 53 of the Local Content Act n 1109 *supra*.

[1113] See s 51(1) of the Local Content Act n 1109 *supra*.

[1114] Section 49(1) of the Local Content Act n 1109 *supra*.

[1115] Section 52(1)(f) of the Local Content Act n 1109 *supra*.

Of particular importance for this study, are the provisions affecting the awarding or allocation of licenses. Section 16 of the Local Content Act provides that in order to ensure that the local companies remain competitive, the award of contracts shall not be solely based on the principle of the lowest bidder. Where a Nigerian indigenous company has capacity to execute the works tendered, it shall not be disqualified exclusively on the basis that it is not the lowest financial bidder, provided value does not exceed lowest bid by 10 per cent.[1116] Furthermore, section 15 of the said Act provides that all project promoters and operators shall consider Nigerian content when evaluating any bid. Where bids are within 1 per cent of each other at commercial stage, the bid containing the highest level of Nigerian content shall be selected, provided Nigerian content in the selected bid is at least 5 per cent higher than the closest competitor.

The Local Content Act[1117] also deals with some fiscal issues. Section 48 of this Act provides that the Minister of Petroleum Resources shall consult the relevant arms of government on appropriate fiscal framework and tax incentives for foreign and indigenous companies which establish facilities, factories, production units or other operations in Nigeria for purposes of carrying out production, manufacturing or for providing any services and goods otherwise imported into Nigeria. This provision opens a window of fiscal incentives and opportunities for companies that establish facilities, factories, and production units in Nigeria.

The Act also deals with first consideration for employment and training of Nigerians (section 28), training of Nigerians (section 30), technology transfer, joint qualification systems (section 56), the setting up of the Nigerian content consultative forum (section 57), among others.

[1116] *Ibid*.

[1117] See Uwanna n 1100 *supra*.

Atsegbua argues that with the introduction of the Local Content Act, an antidote has been found for local participation in the vibrant Nigerian oil and gas sector.[1118] He concludes that, similar to Saudi Arabia, Venezuela and Kuwait, the local content law will go a long way in empowering indigenous oil and gas companies and assist Nigeria in developing the technical capacity for the industry.[1119]

Although the intention of the Local Content Act are noble and in accordance with best practice globally, it remains to be seen whether practical implementation will result in the fulfillment of its main objectives of increasing sustainable and meaningful participation of Nigerians in the oil and gas industry. Oguine observes competing trends on local content in Nigeria, namely some progress that has already been achieved in developing Nigerian content coupled with the importance of collaborative efforts to advance Nigerian content, on the one hand, and the demands for more to be done to promote Nigerian content, on the other hand.[1120] As a result, Oguine cautions that a balance must be struck between the need to promote Nigerian local content and the development of the petroleum industry itself.[1121] This sentiment is shared by Obasi who indicate that-'as laudable as the Act may be, it is also imperative that the interests of the various stakeholders are protected to guarantee the economic drive and growth that will result in local capacity building and high return of investment for both local and foreign stakeholders'.[1122] There are also concerns with respect to the implementation of the Act. These include: possible administrative bottlenecks in the contract award processes due to the requirement to submit, for every contract, a Nigerian content plan as a precondition before a contract is awarded; the unrealistic time frame of three years for the country to be ready to produce locally all items required for use in the oil and gas industry; the lack of clarity as to how the requirement to pay the 1 per cent of total

[1118] See Atsegbua n 1109 *supra*.

[1119] *Ibid*.

[1120] Oguine I 'Nigerian Content in the Nigerian Petroleum Industry: Legal and Policy Issues' 29(4) (2001) *JENRL* 405 at 429.

[1121] *Ibid*.

[1122] Obasi n 1100 *supra*.

contract sum awarded in the sector into the Nigerian content development fund will be implemented; and the requirement that subsidiaries of multinational companies should own at least 50 per cent of the equipment used for execution of work in the country may be onerous to achieve as these equipments leased from the owners and used for operations around the world.[1123]

4.3.8.2. The PIB

The introduction in 2010 of the Petroleum Industry Bill (PIB) is based on the assessment that the present regime may be outdated, not in alignment with international best practice, lacking in ensuring transparency by the NNPC, as well as good governance generally, and not addressing a lack of institutional capacity. The PIB seeks to establish a new legal and regulatory framework, institutions and regulatory authorities for the Nigerian petroleum industry, to establish guidelines for the operation of upstream and downstream sectors, and for purposes connected with the same.[1124] One of the PIB's goals is to reposition the new envisaged Nigerian National Petroleum Company, the NNPC Ltd, on a level similar to other successful NOCs globally (e.g. Petronas in Malaysia, PdVSA in Venezuela, Statoil in Norway, Sanatraco in Algeria, PEMEX in Mexico, Petrobas or PBR (the Brazilian NOC), and Saudi's Aramco, or most importantly, PetroSA in South Africa).[1125]

Similar to the existing legal and regulatory framework, the PIB continues with the vesting of petroleum and natural gas in the Nigerian federal government. Clause 1 of this Bill provides that 'the property and sovereign ownership of petroleum within Nigeria, its

[1123] *Ibid*.

[1124] See Uwanna n 1100 *supra*.

[1125] See Illadere W 'An Appraisal of Oil and Gas Industry Reform and Institutional Restructuring in Nigeria' *International Association for Economics* Fourth Quarter, available at http://www.iaee.org/documents/newsletterarticles/408wumi.pdf (accessed 06 July 2012) p 25.

territorial waters, the continental shelf, the EEZ and extended continental shelf shall vest in the sovereign state of Nigeria for and behalf of the people of Nigeria'. In terms of clause 2 of the PIB any company qualified under terms and conditions to be prescribed from time to time by the relevant institutions shall be free to apply for the grant or award of a license, lease or contract, as the case may be, for the exploration and production of petroleum. Clause 3 of the PIB makes provision for the management of petroleum resources. In terms of this section, the management and allocation of petroleum resources and their derivatives in Nigeria shall be conducted strictly in accordance with the principles of good governance, transparency, and sustainable development of Nigeria. In terms clause 3(2) of the PIB the main criterion for the management of petroleum resources shall be the total benefits that will accrue to the sovereign state of Nigeria. As far as government participation is concerned, clause 4 of the PIB provides as follows:

> [t]he Minister shall grant licences and leases on the recommendation of the Directors General of the Institutions and in accordance with guidelines, impose special terms and conditions that are not inconsistent with the provisions of this Act on any licence or lease to which this Act applies, including terms and conditions as to: (a) participation by the Federal Government in the venture to which the licence or lease relates, on terms to be negotiated between the Minister and the applicant for the licence or lease; and (b) exploitation of any natural gas discovered. (2) Subsection (1) of this section shall not apply to any indigenous company operating in the upstream sector whose aggregate production is less than or equal to fifty thousand barrels per day of crude oil or natural gas equivalent.

The PIB also makes provision for the regulation of environment and air quality emissions. In terms of clause 6 of the PIB the Nigerian federal government shall, to the extent practicable, honour international environmental obligations and shall promote energy efficiency, the provision of reliable energy, and a taxation policy that encourages fuel efficiency by producers and consumers; and introduce and enforce integrated health, safety and environmental quality management systems with specific quality, effluent and emission targets for oil and gas related pollutants, without regard for fuel

type such as gas, liquid or solid, in order to ensure compliance with international standards.

Of particular importance is the issue of community development as provided for in clause 7 of the PIB. In terms of this clause the Nigerian federal government shall, in co-operation with the state and local governments and communities, encourage and ensure the peace and development of the petroleum producing areas of the federation through the implementation of specific projects aimed at ameliorating the negative impacts of petroleum activities.

If passed the PIB will repeal 16 petroleum industry Acts,[1126] and in particular the current Petroleum Act, and it intends to create a single Act for the entire petroleum industry. It purports to strengthen the administration and regulation of the industry by creating 4 regulatory institutions. It seeks to convert the current NNPC to a self-financing NOC. Further, it seeks to convert NNPC unincorporated JOAs to incorporated JVs; and require an open and transparent bid system for all upstream licenses and leases.

4.3.9. The New Institutions created under the PIB

Firstly, the PIB seeks to establish the National Petroleum Directorate (NPD)[1127] as the overarching and coordinating petroleum policy-making institution in place of the Ministry of Petroleum Resources. It is therefore the primary institution to initiate, create and implement the petroleum policy governing the oil and gas sector in Nigeria. Illadere argues that an accomplishment of these objectives will depend significantly on institutional empowerment, funding, and finding and putting highly skilled personnel in key management positions.[1128]

[1126] For instance the PIB proposes the repeal of the current Petroleum Act, and the replacement of the Petroleum Profits Tax (PPT) with the Nigerian Hydrocarbon Tax (NHT).

[1127] See clause 12 of the PIB.

[1128] See Illadere n 1133 *supra*.

Secondly, the PIB proposes three regulatory institutions, namely, the Nigerian Petroleum Inspectorate (NPI),[1129] the National Midstream Regulatory Agency (NAMIRA), and the Petroleum Products Regulatory Authority (PPRA). The NPI is proposed to undertake the regulation of all matters related to the upstream oil and gas sectors. It will therefore assume the functions of the Department of Petroleum Resources and thus become the upstream industry operation and technical regulator. As it has perpetual succession, a common seal and can sue and be sued,[1130] it will be operationally independent from the NPD.

The NAMIRA is proposed to regulate all matters related to the midstream oil and gas sectors, while the PPRA is proposed to undertake the regulation of all matters related to the downstream oil and gas sectors.

Thirdly, the PIB envisions the establishment of the Nigerian National Petroleum Company Limited to replace the current NNPC. The envisaged restructured and commercially focused institution is a new NOC on a level comparable to well-established NOCs found in Malaysia, Venezuela, Norway, Algeria, Mexico, Brazil, Saudi Arabia and South Africa. The idea is to separate regulatory functions from commercial operation as is currently the position in the NNPC. This should ideally help to reduce the prevailing ambiguities in regulatory responsibilities that have beclouded oil and gas operations in Nigeria over the years.

Fourthly, the Nigerian Petroleum Research Centre (NPRC) is to be responsible for research and development in the petroleum industry. Fifth is the Petroleum Host Communities Fund to be established to be utilised for the development of social and economic infrastructure for the communities within the petroleum producing areas. The purpose of this fund is to receive on a monthly basis from upstream petroleum producing companies, sums equaling 10 per cent of their net profits and to utilise the funds for the

[1129] Section 13 of the PIB.

[1130] Section 13(1) of the PIB.

development of the economic and social infrastructure of communities within the petroleum producing areas.[1131]

4.4. Critical Appraisal of the PIB and its New Institutions

The PIB has a number of objectives, including the promotion of an open, competitive and transparent upstream petroleum allocation system based on transparency and sustainable development;[1132] and a better NNPC oversight and corporate governance.

The promotion of transparency is an important development as in the past the awarding of licenses was characterised by abuses of secrecy and discretion. Under the PIB, the discretionary allocations will therefore be a thing of the past as the award will have to be based on openness, healthy competition and transparency. Clause 270(1) of the PIB expressly provides that 'the grant of the petroleum prospecting license, petroleum mining lease or contract shall be by a bidding process...which bidding process shall be open, transparent and competitive'. Clause 270(2) also explicitly states that 'for the avoidance of doubt, no discretionary awards shall be given under any circumstances whatsoever'. License allocation must follow detailed prequalification guidelines and bid parameters, which shall be published to the general public in print form and online (clause 270(3)). This will ensure that only companies with adequate technical and financial capacity (clause 270(4)) are awarded the licenses rather than companies that pay the highest bribes.

Another main objective of the PIB is the promotion of a better NNPC oversight and better corporate governance. To this end, the NNPC is restructured particularly in order to remove the constraints of government funding and barriers to entry of new players

[1131] Section 116 of the PIB.

[1132] See article 3(1) of the PIB.

under a set of rules that are transparent to all. These include strong annual reporting requirements in terms of which the new NNPC must report to the President and the National Assembly and also post a summary of the annual report on its website; requirements for an annual financial audit, in terms of which an annual audit of the NNPC prepared and disclosed in accordance with high quality standards by an independent, competent, experienced and qualified auditor is required. As Sayne indicates, this will encourage a more commercial orientation of the NNPC.[1133] The added transparency will also assist in attracting investors as it encourages competition and discourages illicit behaviour. The request for tenders, bid rounds and details of bids should be published both in print form and online. Article 5 of the PIB also requires all institutions under the PIB and the new NNPC itself to 'be guided by principles of Nigerian Extractive Industries Transparency Initiative Act of 2007'. The emphasis on transparency will obviously curtail the wide discretion of the licensing authority.

Of particular importance is the proposed restructuring of the NNPC to the effect that regulatory and commercial roles are separated thus avoiding the currently prevailing conflict of interest situation.

4.5. Proposed Amendment of Fiscal Provisions

Among others the PIB seeks to 'provide a legal, fiscal and regulatory framework for the Nigerian petroleum industry'.[1134] Upon enactment the PIB seeks to repeal the Deep Offshore and Basic Inland Production Act, and the PPTA and its replacement with the Nigerian Hydrocarbon Tax (NHT). Clause 313 of the PIB provides that NHT will be computed on the chargeable profits for the relevant accounting period at 50 per cent for

[1133] See Sayne A 'Nigeria's Petroleum Industry Bill: Improving Sector Performance through Strong Transparency and Accountability Provision'. (July 2011) *Policy Brief* 5.

[1134] Section 1(d) of the PIB.

onshore and shallow water areas, and 25 per cent for bitumen, frontier acreages and deep water areas. It should be noted that the current rate of PPT is 50 per cent for operations in the deep offshore and inland basin and 85 per cent for operations onshore and in shallow waters. It also should be noted that this is in addition to the company income tax at the rate of 30 per cent,[1135] on upstream petroleum operations, which under the existing regime are not subject to company's income tax.

4.6. Socio-Economic and Political Challenges Facing the Oil and Gas Sectors in Nigeria

Ross identified five spheres that the political economy of oil has affected in the Nigerian nation, namely, 'causing economic volatility, crowding out the manufacturing and agricultural sectors, heightening inequality, inducing violent conflict and undermining democracy'.[1136] To Ross's list, Courson adds that the oil wealth in Nigeria has fuelled elite-led ethnic politics, political instability, corruption and electoral fraud.[1137]

Although it boasts an impressive comparative advantage in terms of petroleum resources in Africa, like most resource rich states in Africa, Nigeria, therefore, faces a number of socio-economic and political challenges. As Inokoba and Imbua note,

> [t]he Niger Delta is richly endowed with abundant hydrocarbon resources that place Nigeria as the seventh largest producer of oil in the world. Paradoxically, however, despite its immense contribution to the up-keep of the Nigerian state, the region suffered monumental neglect and deprivation over the years- this has resulted in widespread

[1135] See the unnumbered provision after section 353 of the PIB.

[1136] See Ross M 'Nigeria's Oil Sector and the Poor', paper prepared for the UK Department for International Development "Nigeria: Drivers of Change"' Programme. DFID, available at http://www.sscnet.ucla.edu/polisci/faculty/ross/NigeriaOil.pdf (accessed 30 February 2012).

[1137] See Courson E 'Movement for the Emancipation of the Niger Delta (MEND): Political Marginalization, Repression and Petro-insurgency in the Niger Delta' *Nordiska Afrikainstitutet Discussion Paper* No. 47 of 2009 at 10.

> poverty, excruciating hardships, complete lack of basic socio-economic infrastructure, plundered environment and high rate of unemployment.[1138]

These challenges include the country's overdependence on oil, and the concomitant resource curse;[1139] the continuing patronage system[1140] together with corruption at the central government; the continuing and destructive petro-violence,[1141] particularly in the

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[1138] See Inokoba & Imbua n 903 *supra*.

[1139] See Mähler n 902 *supra* at 14; Onyeukwu AJ 'Resource Curse In Nigeria: Perception and Challenges' available at http://www.google.co.za/url?sa=t&rct=j&q=resource%20curse%20in%20nigeria&source=web&cd=4&ved=0CDwQFjAD&url=http%3A%2F%2Fwww.policy.hu%2Fdocument%2F200808%2Fjohn.onyeukwu.pdf%26letoltes%3D1&ei=sr95T7PKMpCLhQej38CoDQ&usg=AFQjCNGbsfU8_g3lx0k-pZXrZyNLJrG7UA (accessed 20 December 2011); Olarinmoye OO 'Politics Does Matter: the Nigerian State and Oil (Resource) Curse' 3 (2008) *Africa Development* 21; Firger DM 'Transparency and the Natural Resource Curse: Examining the New Extraterritorial Information Forcing Rules in the Dodd-Frank Wall Street Reform Act of 2010' 41 (2010) *Georgetown Journal of International Law* 1043*;* Opeyemi AY 'Empirical Analysis of Resource Curse in Nigeria' 1(6) (2012) *International Journal of Economic and Management Sciences* 19; and Watts M 'Resource Curse? Governmentality, Oil and Power in the Niger-Delta, Nigeria' available at http://mais611.wiki.usfca.edu/file/view/Watts+Resource+Curse.pdf (accessed 14 February 2012).

[1140] See Thurber *et al* n 417 *supra*.

[1141] See Zalik A 'The Niger Delta: "Petro Violence" and *"*Partnership Development*""* 101 (2004) *Review of African Political Economy* 401-424; Chidi UO 'The "Petro violence" in the Oil-rich Niger Delta of Nigeria: A Moral Assessment of the Conflict between Shell and Its Host Communities' Masters Thesis in Applied Ethics, Centre for Applied Ethics Linköpings Universiteit Presented August, 2008;Watts M 'Petro-violence: Community, Extraction, and Political Ecology of a Myth Commodity' in Watts M & Peluso N (eds) *Violent Environments* (Cornell University Press 2001) ; and Omeje K 'Oil Conflict and Accumulation Politics in Nigeria' Environmental Change and Security Programme (*ECSP) Report from Africa: Population, Health, Environment, and Conflict* Issue 12 (2006-2007) available at http://www.wilsoncenter.org/sites/default/files/Omeje12.pdf (accessed 14 February 2011).

Niger-Delta; environmental degradation;[1142] lack of transparency and accountability; and most importantly failure to involve local host communities[1143] in the exploration and production phases of oil and gas exploitation. As Cordesman and Al-Rodhan correctly point out, inter-ethnic strife and violence in the Niger-Delta including kidnapping, sabotage, and attacks of oil facilities have caused production and supply disruptions. For example,

> [i]n March 2003, Chevron-Texaco and Shell moved some of their staff off location and suspended their production in the Niger Delta, which caused Nigerian production to drop by 13% or 0.266 MMBD. In June 2005, the U.S. consulate at Lagos was closed for several days due to an internet terror threat supposedly posted by Osama bin Laden marking the country for 'liberation'". On September 23, 2005, the Nigerian radical separatist groups, People's Volunteer Force, issued a statement in which they threatened, 'We will kill every iota of oil operations in the Niger Delta. We will destroy anything and everything. We will challenge our enemies in our territory and we shall feed them to the vultures'. The threat came after the Nigerian authorities arrested Dokubo-Asari on allegations of treasons. The government of Nigeria announced that it deployed 900 extra police officers. Following the statement, Chevron Corp. and Royal Dutch Shell

[1142] See Eregha PB & Irughe IR 'Oil Induced Environmental Degradation in the Nigeria's Niger-Delta: the Multiplier Effects' 11(4) (2009) *Journal of Sustainable Development in Africa* 160 at 162; Opukri CO 'Oil Induced Environmental Degradation and Internal Population Displacement in the Nigeria's Niger Delta' 10(1) (2008) *Journal of Sustainable Development in Africa*; Abosede B 'Environmental Conflict and the Politics of Oil in the Oil-Bearing Areas of Nigeria's Niger Delta' 5(1) (2010) *Peace & Conflict Review* 1; Oviasuyi PO & Uwadiae J 'The Dilemma of Niger-Delta Region as Oil Producing States of Nigeria' 16 (2010) *Journal of Peace, Conflict and Development* 110; Aghalino SO & Eyinla B 'Oil Exploitation and Marine Pollution: Evidence from the Niger Delta, Nigeria'28(3) (2009) *Journal of Human Ecology* 117; Okonmah PD 'Right to Clean Environment: the Case for the People of Oil Producing Communities in the Niger Delta' 41 (1997) *Journal of African Law* 43; and Orubu CO *et al* 'The Nigerian Oil Industry Diseconomies, Management Strategies and the Need for Community Involvement' 16(3) *Journal of Human Ecology* 203.

[1143] See Omeje n 1149 *supra*; and Eweje G 'Multinational Oil Companies' CSR Initiatives in Nigeria: the Scepticism of Stakeholders in Host Communities' 49 (5/6) (2007) *Managerial Law* 218.

> PLC shut their oil facilities in the Niger Delta. The two Chevron stations that were shut down produced 0.027 MMBD.[1144]

4.6.1. Overdependence and the 'Resource Curse'

Like Angola, Nigeria is overly dependent on oil[1145] and this 'over-dependence has created the unexpected changes of the international market'.[1146] According to Kalu and Steward, 'Nigeria's economic strength is based on immense oil and gas wealth...'[1147] Aghalino and Eyinla indicate that 'oil is the basis of the existence of the Nigerian nation state'.[1148] Aturu indicates that over 90 per cent of Nigeria's total foreign exchange earnings come from oil.[1149] As Jenssen notes,

> [t]he oil boom of the 1970s led Nigeria to neglect its strong agricultural and light manufacturing bases in favour of a dependence on crude oil. New oil wealth, the concurrent decline of other economic sectors, and a lurch toward a non-dynamic economic model, generated massive migration to the cities and led to increasingly widespread poverty, especially in rural areas. Along with the ubiquitous malaise of Nigeria's non-oil sectors, the economy continues to witness massive growth of "informal sector" economic activities, estimated by some to be as high as 75 percent of the total economy. While oil dominates the Nigerian economy and generates the vast majority of government revenues, the country is perceived as one of the most corrupt countries in the world, and significant levels are said to exist within its oil and gas sector. The complex and largely opaque operations of the oil industry make it difficult to establish exactly how, when and to what extent corruption exists within this sector.[1150]

[1144] See Cordesman & Al-Rodhan n 930 *supra* at 55.

[1145] See Omorogbe n 897 *supra* 273; Oyefusi A 'Oil-dependence and Civil Conflict in Nigeria' CSAE WPS/2007-09 available at http://economics.ouls.ox.ac.uk/13225/1/2007-09text.pdf (accessed 10 October 2011); Thurber *et al* n 417 *supra* at 5. See also Mähler n 902 *supra*.

[1146] See Adedipe n 889 *supra* at 5. See also Aturu n 904 *supr*a.

[1147] See Kalu & Steward n 32 *supra* at 245.

[1148] See Aghalino & Eyinla n 1150 *supra* at 177.

[1149] See Aturu n 867 *supra*.

[1150] See Jessen L *Corruption as a Political Risk Factor for Investors in the Oil and Gas Industry, with Specific Emphasis on Nigeria: Identification, Analysis and Measurement* a thesis presented

Aturu warns that 'with the way the economy is structured by the ruling elite, if oil production stops for any reason the country would simply grind to a halt.'[1151] Adedipe identifies the following problems with the oil sector in Nigeria:

- relatively low level of investment in the sector, compared to its potentials;
- the federal government's delays in the payment of cash calls for its JV operations in the upstream sub-sector, focusing more on maintenance rather than growth;
- high technical cost of production, due to low level of domestic technological development.
- inappropriate pricing of petroleum products for domestic consumption;
- restrictions imposed by crises and production disruptions caused by host communities; and
- environmental degradation due the flaring of associated gas.[1152]

As a result of this overdependence on oil, like Angola and other developing African states, Nigeria also suffers from the so-called 'resource curse'.[1153] In fact, this country is often cited as the classic example of the natural resource curse. As Klieman indicates-

> [p]resent-day oil producers in Africa suffer from the "oil curse" or the "natural resource curse." Despite massive influxes of oil revenues, these nations experience stagnating economies, declining standards of living, and increasingly authoritarian and corrupt forms of government. Nigeria provides a classic example. Ranked fifth globally in oil production, this nation has earned more than $340 billion in oil and gas revenues since the 1970s. Still, 70 percent of its population currently lives on less than one dollar per day, 43 percent have no access to clean water, and rebel insurgents in the oil-producing Niger delta threaten the stability of the Nigerian state. Corruption is rampant. In a recent study, the Nigerian National Petroleum Corporation received a ranking of zero for its

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in partial fulfillment of the requirements for the degree of Master of Arts (International Studies) at Stellenbosch University, March 2012, at 57.

[1151] See Aturu n 904 *supra*.

[1152] See Adedipe n 889 *supra* at 6.

[1153] According to Ascher 'the "resource curse" refers to the economic and political problems said to arise from reliance on natural resources exploitation'. See Ascher n 35 *supra* 569 at 570.

> level of transparency; the average ranking for the forty-four oil companies evaluated was sixty-five.[1154]

As Courson puts it-

> [t]he oil-rich Niger Delta region of Nigeria is currently mired in a major insurgency by MEND militants attacking oil multinationals, oil installations and government security forces. On the face of it, the MEND insurgency appears to be a classic example of the "resource curse" thesis that seeks to establish strong connections between natural resource abundance, the paradox of plenty and violent conflict in third world countries.[1155]

Nigeria's incredible oil wealth has failed to generate growth and has actually increased the number of people living on less than $1 a day from 30 per cent before oil was discovered to the current rate of 70 per cent. As Fabricious indicates,

> the 'resource curse' is a relative term. For some countries like Angola, Nigeria and Equatorial Guinea, it brings to mind vicious and bloody battles to control oil revenues, gross corruption and mostly opaque oil accounts which allow political leaders to siphon off vast and uncounted amounts of money.[1156]

[1154] See Klieman KA 'US Oil Companies, the Nigerian Civil War, and the Origins of Opacity in the Nigerian Oil Industry' June (2012) *The Journal of American History* 155; See also Gary I *et al* 'Bottom of the Barrel: Africa's Oil Boom and the Poor 'A Report of the Catholic Relieve Services June 2003, available at http://www.arts.ualberta.ca/~courses/PoliticalScience/474A1/documents/IanGaryandTerryLynnKarlBottomoftheBarrelAfricaOilPoor.pdf (accessed 1 August 2012) p 25.

[1155] See Courson n 1145 *supra* at 1.

[1156] See Fabricius P 'Norway's Great Example' *Daily News* September 6 2011.

Mähler also identifies Nigeria as 'a prime example of the curse that natural resources can bring'.[1157] She demonstrate that-

> [i]ndeed, 50 years of substantial oil production have not resulted in sustainable socioeconomic development in the country. The poverty rate today is extremely high, with 50 percent of the population living on less than US$1 per day; in fact, the current poverty rate exceeds that of the period before the first oil boom in the 1970s, which was 35 percent. The national social and transport infrastructure is in a desolate condition, and the country is marked by chronic internal instability and periodic flare-ups of violent conflict.[1158]

Olarinmoye highlights that-

> [f]or most Nigerians, especially those living in the Niger-Delta, Nigeria's oil wealth is actually 'oil of poverty' or a curse, because it has produced only poverty, underdevelopment and conflicts since its commercial exploitation began in the late 1950s. Such a conclusion is not aberrant as 'it is now almost conventional wisdom that (natural) resources are a curse for developing countries' with abundance of natural resources causing poor growth and raising the incidence, intensity and duration of conflicts.[1159]

Other more serious challenges include the role of the Nigerian NOC as the 'centerpiece of a system that performs poorly at the task of maximizing the long term oil revenue for the state'.[1160]

Furthermore, as Raji indicates,

> paradoxically the same [oil] resource representing the power-house of national life (in Nigeria) also serves as a big agency of dislocation and disorientation for the several million people inhabiting the areas where it is produced. Directly, the dislocation and

[1157] See Mähler n 902 *supra* at 5. For a more general discussion of the 'resource curse' see Stevens n 257 *supra;* Karl n 251 *supra,* and Karl n 252 *supra*.

[1158] *Ibid*.

[1159] See Olarinmoye n 1147 *supra* at 22.

[1160] See Thurber *et al* n 417 *supra* at 7.

> disorientation derive from two complementary and interrelated factors: the first being the devastating impact of the exploration of the resources on the environment, and the second that of the cruel neglect of the people of the area by successive Nigerian administrations.[1161]

In the Nigerian context, Bisinia notes that Nigeria's resources 'blessing' has become a curse for the people of the Niger-Delta, who have suffered environmental devastation, economic poverty, and constant conflict.[1162] To make matters worse, political considerations and greed on the part of a corrupt government have kept many of the earnings from these vast reserves from returning to the Niger-Delta to help restore the region.

However, not all scholars buy into the resource curse perspective that leads to violent conflict. In other words, the resource curse is not seen by all as the cause of violent conflict in Nigeria. Ifeka sees conflict, especially in the Niger-Delta as the consequence or reflection of political repression and undemocratic practices by erstwhile military dictators.[1163] In this regard, Ikelegbe[1164] and Reno[1165] have correctly expressed the idea that a primary resource by itself does not cause conflict. They argue that, rather it is the complex struggles by various classes, fractions and groups, local, national, and international, with regard to the manner of extraction, management, appropriation, and distribution of benefits that propel and fuel armed conflict.

The author agrees with Ikelegbe and Reno that the abundance of a primary resource cannot by itself be a source of conflict. There are countries that are rich in natural

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[1161] See Raji n 902 *supra* at 110.

[1162] See Ifeka C 'Conflict, Complicity and Confusion: Unraveling Empowerment Struggles in Nigeria after the Return of Democracy' (2000) *Review of African Political Economy* 83.

[1163] *Ibid*.

[1164] See Ikelegbe A 'Economy of Conflict in the Oil Rich Niger Delta Region of Nigeria' 5(1) (2006) *African and Asian Studies* 23.

[1165] See Reno W 'Foreign Firms and Financing of Charles Taylor's NPFL' 18 (2003) *Liberia Studies Journal* 92.

resources but which do not experience violent conflict to the extent that Nigeria, Angola, and other African states do. Typical examples would be Norway in Europe and Botswana in Africa. The manner of extraction of these resources, their management, appropriation, and distribution are done in such a manner that all stake holders are satisfied. As indicated earlier the author believes that it is not the resources themselves that are cursed but the impact of the way the resources are managed. Sometimes this impact is positive and thus a blessing as in Norway. At other times, on the other hand, the impact of the way the natural resources are managed is negative and therefore a curse. This is the case in Nigeria and Angola for instance.

4.6.2. The Patronage System and Corruption

As Jessen puts it-

> [w]here corruption is relatively common in the oil and gas sector, its consequences can take many forms. There are direct consequences, such as loss of revenues, poor technical standards of operation, sub-optimal oil recovery or premature termination of production in an area. There are, in addition, many indirect consequences of corruption in an investment country that can affect the business and interest of the investor. This includes lowered investment in the country and retarded economic growth, capital flight, political decisions on resource allocation across sectors and industries, competition effects in the market, the design of the tax system, reduced aid flows, loss of tax revenue, adverse budgetary consequences, lower quality of infrastructure and public services, and distorted composition of government expenditure. To generate growth, businesses must use their capital resources productively. All bribe payments shift money away from potentially productive investments in the business. When capital is drawn away into non-economic transactions, this negatively affects the business growth, as well as the marketplace in general. Corruption also distorts growth incentives by forcing out potentially better producers of goods and services.[1166]

[1166] See Jenssen n 1158 *supra* at 33.

The Nigerian oil sector is characterised by unprecedented levels of corruption. According to the U.S. State Department, corruption in Nigeria is 'massive, widespread, and pervasive'.[1167] On corruption, Nigeria's ranking on Transparency International's Corruption Perceptions Index has consistently worsened in the past three years, after momentarily improving in 2008 following President Yar'Adua's victory.[1168] The *Human Rights Watch* also suggests that the country's political system rewards rather than punishes corruption, which has been fuelled by oil revenues for decades.[1169]

Osuoka correctly points out that 'corruption has robbed the people of potential benefits from the oil and gas industries, as the bulk of revenues have been looted or mismanaged by public office holders at all levels of government.[1170] The Economic and Financial Crimes Commission of Nigeria has estimated that the country lost as much as $380 billion to corruption and waste between 1960 and 1999.[1171] Since then, the situation may have worsened, even under civilian rule'.[1172] In 1999 the *Human Rights Watch* also described the Nigerian politics as 'an exercise in organized corruption: a corruption perhaps most spectacularly demonstrated around the oil industry…where large commissions and percentage cuts of contracts have enabled individual soldiers and politicians to amass huge fortunes'.[1173]

[1167] See U.S. State Department 'Nigeria', *Country Report on Human Rights Practices 2009*, March 2010, available at http://www.state.gov/j/drl/rls/hrrpt/2010/af/154363.htm (accessed 12 October 2011).

[1168] *Ibid*.

[1169] See *The Human Rights Watch* 'Corruption on Trial*?'* August 25, 2011.

[1170] See Osuoka AI 'Oil and Gas Revenues and Development Challenges for the Niger Delta and Nigeria' Paper presented at the Expert Group Meeting on The Use of Non-Renewable Resource Revenues for Sustainable Local Development Organised by the UN Department of Economic and Social Affairs Friday 21 September 2007 UN Headquarters, New York.

[1171] *Ibid*.

[1172] *Ibid*.

[1173] See *The Human Rights Watch* (1999) 'The Price of Oil: Corporate Responsibility and Human Rights Violations in Nigeria's Oil Producing Communities') 6, available at http://www.hrw.org/legacy/reports/1999/nigeria/nigeria0199.pdf (accessed 20 November 2011).

In Nigeria, prominent public figures commonly assert that hundreds of billions of dollars of public money have been lost to corruption since Nigeria became independent in 1960. One military ruler, the late Sani Abacha, is estimated to have looted several billion dollars between 1993 and 1998.[1174]

4.6.3. Petro-violence in the Oil Rich Niger-Delta

The concept of 'petro-violence' has been conceptualised by Watts in 2001.[1175] In a nutshell, it refers to violence sparked by collusion between the state and the petroleum industry both in social repression.[1176] In Nigeria, this is evident from the joint security imposed by the Nigerian military and MOCs to police their installations and the environment of social unrest that surrounds petroleum extraction.[1177] This social unrest resulted from the political marginalisation of the population of the oil rich Niger-Delta region. The marginalisation is apparent from the transfer of locally-derived oil revenues to the federal government, and the apparent lack of infrastructural development in the Niger-Delta region, including inadequate roads and insufficient phone lines connecting the region to the major cities such as Lagos, as well as ongoing military and police repression of local claims on, and resistance against, the oil industry.[1178]

As a result of this marginalisation, Nigeria has since the 1990s been rocked by violence against MOCs operating in the Niger-Delta.[1179]
Omotola notes that-

[1174] See *Global Witness* n 504 *supra*.

[1175] See Watts n *supra* 1108 at189.

[1176] See Zalik n 1149 *supra* at 401.

[1177] *Ibid*.

[1178] *Ibid*.

[1179] See Omeje n 1149 *supra*. See also Ojakorotu V & Gilbert LD 'Understanding the Context of Oil Violence in the Niger Delta of Nigeria' in Ojakorotu & Gilbert n 1187 *supra* at 1; and Paki & Ebienfa n 910 *supra* at 140.

> [t]he most threatening dimension of the agitation is the resort to violence, most often where peaceful means have failed, and at times as a response to governmental repression. Some of the people's approaches have included outright seizure of oil wells, kidnapping of oil workers, violent demonstrations, and direct confrontation with the state and its agent, the oil multinationals. The famous Ogoni uprising, spearheaded by Ken Saro-Wiwa's Movement for the Survival of Ogoni people remains legendary.[1180]

Ploch also indicates that-

> Nigeria's oil wealth has been a source of continuing political tension, protest, and criminality in the Delta, where most of the country's oil presently originates. The conflict has been linked to the vandalism of oil infrastructures; massive, systemic production theft known as 'oil bunkering,' often abetted by state officials; protests over widespread environmental damage caused by oil operations; hostage taking; and public insecurity and communal violence. Several thousand people have been killed in pipeline explosions in southeast Nigeria since the late 1990s. These explosions are triggered when people siphon off oil from holes punched in the above-ground pipeline for personal use, resulting in a reported loss of some 100,000 barrels of oil per day.[1181]

In the late 1980s and 1990s the Niger-Delta crises spread as the youth in the area became increasingly agitated.[1182] In 1994, the Ijaw National Congress (INC) was formed to rearticulate the grievances of the Niger Delta people. However, the Nigerian federal government and MOCs frowned upon such an initiative. In 1998, the Ijaw Youth Council (IYC) was formed as an arm of INC through 'Kaiama Declaration', which contains

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[1180] See Omotola JS 'From the OMPADEC to NDDC: An Assessment of State Responses to Environmental Insecurity in the Niger Delta, Nigeria,' (2007) *Africa Today* 73-89 at 78.

[1181] See Ploch n 950 *supra* at 16.

[1182] See Akinwale AA & Osabuohien E 'Re-Engineering the NDDC's Master Plan: an Analytical Approach' 11(2) (2009) *Journal of Sustainable Development in Africa* 147.

principles of equity and justice.[1183] Kaiama is the birthplace of an Ijaw hero, Isaac Adaka Boro. A key component of the Kaiama Declaration states thus:

> [a]ll land and natural resources (including mineral resources) within the Ijaw territory belong to the Ijaw communities and are the basis of our survival... We cease to recognize all undemocratic decrees that rob our communities of the right to ownership and control of our lives and resources, which were enacted without our participation and consent…it is our wish to remain part of the Nigerian family, but not in conditions that would undermine our survival and demean our humanity.[1184]

This violence was at its peak in 1995 when the activist and writer, Ken Saro-Wiwa, and eight other Ogoni activists were hanged, ostensibly on a murder charge.[1185] Although this caused outrage all over the world, the root cause of that tragedy was the collision between Saro-Wiwa's Movement for the Survival of Ogoni People (MOSOP) and the Nigerian federal government over government policies on the rights of oil producing areas.

[1183] *Ibid*.

[1184] *Ibid*.

[1185] In 1994, author and activist Ken Saro-Wiwa, president of the Movement for the Survival of the Ogoni People (MOSOP), and 14 others were accused of involvement in the murder of several prominent Ogoni politicians, namely Samuel Orage, Theophilus, Orage, Alberta Badey, and Edward Kobani,who are generally referred to as the 'Ogony Nine' (See Williams O *Case Study:* SERAC Vs. Nigeria: *Examining the Role of International Law in Supporting Social Movement Goals* Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts in International Human Rights Law at the American University in Cairo 10). They pleaded not guilty, but Saro-Wiwa and eight others were convicted and sentenced to death in 1995. Their executions sparked international outrage against the regime of dictator, Sani Abacha, who was accused of extensive human rights abuses. See Ploch n 950 *supra* at 16. For more and comprehensive narrations on this sad story, see generally Na'Allah n 30 *supra*.

Immediately after the execution of the 'Ogony Nine' in March 1996, the African Commission on Human and Peoples' Rights had an opportunity to deal with human rights (economic, social, and cultural rights) issues affecting the Ogony people in the famous case of the *Social and Economic Rights Action Committee of Nigeria (SERAC) v the Federal Republic of Nigeria.*[1186] In this case SERAC alleged that the government of Nigeria had been directly involved in irresponsible oil development practices in the Ogoni region in violation of the Ogoni people's rights to health, healthy environment, housing, and food in contravention of several articles of the African Charter. [1187] Due to, among others, the desire to reach an amicable resolution and the delay in receiving responses from the then Nigerian military government, it was only in October 2001 that the Commission reached a decision, finding that the Nigerian government was indeed in violation of the rights it was alleged to have violated This was after a change of government in Nigeria from a military to a civilian government which, in a *note verbale* (127/2000) submitted to the Commission in October 2000, admitted that 'there is no denying that a lot of atrocities were and are still being committed by the oil companies in Ogoni land and indeed in the Niger-Delta area'.

This violence escalated in January 2006 with the kidnapping of four foreign Shell employees by the Nigerian militants called the Movement for the Emancipation of the

[1186] *Communication No. 155/2001 SERAC & Another v Nigeria (2001),* 15th Annual Activity Report: 2000–2002.

[1187] The articles alleged to have been violated were; articles 16 and 24 (relating to the right to health and the right to a healthy environment); articles 14 and18, (the right to housing which was, deduced from combining the right to property, the right to health (article 16) and the right to family; article 4 (the right to food which was deduced from the right to life and the right to health); article 2 (the right to non-discrimination); and article 21 (the right of peoples to freely dispose of their resources).

Niger-Delta (MEND).[1188] This violence continued with MEND blowing up pipelines, overrunning an offshore rig, killing Nigerian soldiers, and kidnapping and ransoming more than 50 oil workers.[1189] As Ploch indicates, 'attacks on oil facilities by militant groups like the MEND have periodically cut Nigeria's oil production by as much as 25%, and analysts partially blame supply disruptions in Nigeria for periodically raising the world price of oil'.[1190]

As Akinwale and Osabuohien note, 'the logic of recurrent agitations, violence and militia movements derives from the lingering deprivation of people in the region'.[1191]

The government's initial intervention to the petro-violence was to establish the Oil Minerals Producing Areas Development Commission (OMPAMDEC) in 1992 to address the problems of environmental pollution occasioned by oil prospecting activities and the neglect of oil producing areas and the consequent protests by the communities. The OMPADEC was expected to mediate between the oil companies and the communities, as well as to receive and administer the monthly allocation from the federation account in accordance with confirmed oil–production ratio in each state of the Niger-Delta.[1192] However, it performed unsatisfactorily as it only provided electricity and pipe-borne water to some villages, while most of its funds were misappropriated.[1193] As a result of the OMPADEC's failure to significantly contribute towards the development of the Niger-Delta, the need arose for alternative institutional measures. This resulted in the establishment of the Niger-Delta Development Commission (NDDC) in 2000.[1194] It was

[1188] See Omeje n 1149 *supra*. See also generally, Amaraegbu DA 'Violence, Terrorism and Security Threat in Nigeria's Niger Delta: An Old Problem Taking a New Dimension' 5(4) 2011 *African Journal of Political Science and International Relations* 208.

[1189] See Omeje n 1149 *supra*.

[1190] See Ploch n 950 *supra* at 17.

[1191] See Akinwale & Osabuohien n 1190 *supra* at 144.

[1192] See Akwinale & Osabuohien n 1190 *supra* at 145.

[1193] *Ibid*.

[1194] See Akwinale & Osabuohien n 1190 *supra* at 143.

constituted to serve the oil producing communities as a result of the continuing crises and abysmal performance of extant commissions in the region.[1195] In terms of section 7 of the Niger-Delta Development Commission Act-

> the commission shall formulate policies and guidelines for the development of Niger-Delta and conceive, plan, and implement projects capable of fostering sustainable development of the area in line with set rules and regulations. In doing these things, it would have access to contributions of each of its member states, and it would submit to the direction, control, or supervision of the president in performing its functions.

However, this federal government agency is not without its own challenges. The challenges include political influences, corruption, and underlying structural problems, as well as identity-based social movements which confront the NDDC operations and make projects implementation difficult.[1196] As Akwinale and Osabuohien observe,

> [t]he rising spate of intensely volatile resistance and militant insurrection in the region seemingly negate the euphoria of the NDDC's potential achievements. For instance, on the 1st of January 2008, over 10 people, including four police officers, died during militants' coordinated assaults on two police stations, a hostel, and a restaurant ...in Port Harcourt (a major city in the Niger-Delta). The ongoing resource control crisis and militant warfare with sophisticated weaponry in confrontation against the state security forces give an impression that NDDC is either not communally acceptable or has not addressed the core of the Niger-Delta problems. What has the NDDC done about the lingering insurgency in the Niger-Delta and how can it influence the living standards of the underprivileged in the region?[1197]

Akwinale and Osabuohien conclude that-

> … the NDDC's master plan is not radically different from the extant policies and may aggravate the antimonies to development in the region. If lasting solution to the lingering

[1195] See Akwinale & Osabuohien n 1190 *supra* at 148.

[1196] *Ibid*.

[1197] *Ibid*.

> crisis in the Niger Delta is desired, it is essential to positively utilize combined powers of local organizations. Ultimately, rather than romancing with military and political approaches that have not engendered sustainable development, the people who live with and whose lives are directly affected by the Niger Delta crisis should be reckoned with in arresting the crisis and positively transforming the region.[1198]

Inokoba and Imbua indicate that both the OMPADEC and the NDDC have failed to address the developmental needs of the people as they are based on dubious and faulty premises.[1199] They criticise the two for being 'top-to-bottom initiatives devoid of proper participation and inputs from the affected communities', and also for being 'grossly under-funded'.[1200] Furthermore, they indicate that the two 'have so far failed to address the fundamental problems of exclusion, deprivation and marginalisation, which have thrown up the crises of underdevelopment in the region'.[1201]

Ploch highlights that-

> [f]rom 2007 through mid-2009, militant activity in the Delta was punctuated with periodic ceasefires and negotiations with the government. Acts of sabotage by the MEND and other militant groups increased in early 2009, cutting oil production by approximately 273,000 barrels per day. In May 2009, Nigeria's Joint Task Force (JTF), a special combined military and police unit established in 2004 to restore order in the Delta, launched a new offensive against the militants. The ensuing fight, combined with JTF air and land strikes against militant camps, displaced thousands, according to Amnesty International. Armed conflict between security forces and militia has decreased in the aftermath of an amnesty program, although periodic skirmishes continue.[1202]

4.6.4. Environmental Challenges

[1198] *Ibid*.

[1199] See Inokoba & Imbua n 903 *supra* at 111.

[1200] *Ibid*.

[1201] *Ibid*.

[1202] See Ploch n 950 *supra* at 17.

Petroleum operations give rise to various types of pollution at any stage of the operation.[1203] This include negative environmental impacts resulting from conducting upstream activities such as exploration and production, and those resulting from downstream activities such as refining and transportation.

According to Ogri, there is a tendency in developing countries to abuse the environment in the exploitation of abundant natural resources.[1204] According to him, insufficient emphasis is placed on environmental protection and conservation in harnessing natural resources in developing countries.[1205] Ogri reckons that the reason for this is the fact that developing nations tend to be pre-occupied with industrialisation resulting from abundant natural resources at the expense of environmental quality.[1206] Nigeria is not an exception to this phenomenon.

As Aturu indicates, despite the oil companies claims in the Niger-Delta, that they conduct their oil and gas exploration activities in conformity with the 'highest environmental standards and that the impact of oil on the environment of the Delta is minimal',[1207] the devastating effects of oil exploration and exploitation on the Nigerian environment in general, and the Niger-Delta in particular, is widely acknowledged and documented.[1208]

[1203] See Omorogbe n 1037 *supra* at 133.

[1204] See Ogri n 895 *supra* at 11.

[1205] *Ibid*.

[1206] *Ibid*.

[1207] See Aturu n 904 *supra* at 52.

[1208] See Thurber *et al* n 417 *supra*; and Orubu CO *et al* 'The Nigerian Oil industry: Environmental Diseconomies, Management Strategies and the Need for Community Involvement' 16(3) (2004) *Journal of Human Ecology* 203.

Since the discovery of oil in Nigeria in the 1950s the country in general and the Niger-Delta in particular, has been suffering from negative environmental consequences of oil development.[1209] As Ogri indicates,

> Nigeria has abundant deposits of oil and natural gas and their exploitation has improved the economy substantially, but with serious environmental costs. Severe ecological damage has occurred in the Niger-Delta area where most of the oil industries are based. Statutory rules and regulations for environmental protection applicable to the oil industry in Nigeria appear to be generally inadequate and ineffective. So far, air pollution has not been properly addressed. Natural gas is still been flared from many oil wells, with serious air pollution problems and a waste of this resource. The legal control of air pollution in the light of the ongoing operations of liquefied natural gas (LNG) and compressed natural gas (CNG) projects is advised along with other measures for environmental quality, control and the conservation of resources.[1210]

Rexler also indicated that 'the oil-rich Niger-Delta has long suffered the environmental degradation, social unrest, and rampant corruption associated with the proverbial "resource curse"'.[1211] Describing the sheer disregard of environmental standards in the oil and gas exploration and production in Nigeria generally and the Niger-Delta in particular, which have dire environmental impacts, Ogri says that-

> [w]ith the increasing population and technological advancement particularly for crude oil exploration, production and refining, which is the main thrust of Nigeria's economy, traditional environmental ethics have been abandoned, natural equilibrium disrupted and the ecosystem impoverished.[1212]

[1209] See Nwilo & Badejo n 902 *supra*.

[1210] See Ogri n 895 *supra* at 11.

[1211] See Rexler J 'Beyond the Oil Curse: Shell, State Power, and the Environmental Regulation in the Niger Delta' XII(1) (2010) *Stanford Journal of International Relations* 26.

[1212] See Ogri n 895 *supra* at 11.

Inokoba and Imbua points out that 'the unbridled exploitation of crude oil and natural gas beneath the lands of the Niger-Delta over the past fifty years has caused indescribable and irredeemable ecological devastation to the Niger-Delta land'.[1213]

These environmental damages include negative impacts of oil spill incidents,[1214] ongoing marine and oil pollution,[1215] air quality, and the destruction of vegetation in favour of exploration activities and installation of drilling equipment.[1216] As Inokoba and Imbua note,

> oil related environmental multi-dimensional problems that have made life unbearable for the people of the Niger-Delta includes water pollution as a result of oil spills and drilling activities; destruction of vegetation, deforestation, destruction of farmlands and human settlement as a result of the installation and location of exploring facilities such as crude oil and gas carrying pipelines that criss-cross most communities in the Niger-Delta; loss of biodiversity such as fauna and flora habitat; destruction of mangrove swamps and salt marsh; air pollution and acid rain from gas and oil processing evaporation and flaring; industrial solid waste disposal; and several others.[1217]

Oil spillage can occur at any stage of the oil industry operations.[1218] Crude and refined oil are both pollutants that have lasting and deleterious effects on the environment.[1219] Oil spill does not refer only to big disasters which gets a lot of attention from politicians, environmentalists and scientists,[1220] but also to small scale pollution or 'little drops'

[1213] See Inokoba & Imbua n 903 *supra* 104.

[1214] See Ogri n 895 *supra* at 11. See also Omorogbe n 1037 *supra* at 134.

[1215] See Omeje n 1149 *supra* at 46.

[1216] See Ogri n 895 *supra* at 18.

[1217] See Omorogbe n 897 *supra* at 104-105.

[1218] See Omorogbe n 1037 *supra* at 134.

[1219] *Ibid*.

[1220] See Ogri n 858 *supra* at 13.

occurring for example at filling stations and mechanic shops.[1221] Oil spillage and its consequent environmental problems are prominent features of petroleum exploration in Nigeria in general, but more particularly the Niger-Delta.[1222] Oil spills could typically be caused by equipment failures, sabotage, human error, corrosion, natural causes, blowouts, engineering errors, and natural causes, acts of third parties, erosions and accidents.[1223] In Nigeria in particular, most oil spill are blamed on sabotage, which is a wilful (and violent) attempt to disrupt or interrupt the production or distribution of oil by third parties.[1224] As Ogri highlights, a major source of damage to soil occurs through oil leakage from pipelines and storage tanks.[1225] In the Nigerian context, these third parties are often host communities in the areas where oil exploration and production takes place. These communities are enraged by poverty, neglect, and ignorance not only from MOCs but also their own domestic government. Although a serious crime with stiff penalties, sabotage continues in Nigeria. As Omorogbe indicates, the solution does not lie only with the law but with educating the people as to the adverse effects of oil pollution, and also in the government and companies jointly working to ensure that the oil producing communities are provided with basic amenities.[1226]

[1221] See Omorogbe n 1037 *supra* at 134.

[1222] See Ogri n 895 *supra* at 14. As Aghalino & Eyinla notes, although Nigeria has recorded several cases of marine pollution, as a result of oil spillage, it would appear that there are two outstanding cases, namely the Funiwa-5 oil well blow-out of 17 January 1980, in which, well over 400,000 barrels of crude oil spilled into the marine environment of Nigeria, as well as Mobil's Qua Iboe of 1998 which resulted in the spillage into the marine environment of 40,000 barrels of crude oil. See Aghalino & Eyinla n 1150 *supra* at 177.

[1223] See Ogri n 895 *supra*.

[1224] *Ibid*.

[1225] See Ogri n 895 *supra* at 17.

[1226] See Omorogbe n 1037 *supra* at 134.

The harmful effects of oil spill are varied.[1227] In the Nigerian coastal environment, large areas of the mangrove ecosystem have been destroyed as a result of oil spills.[1228] The Funiwa-5 oil well blow-out of 17 January 1980, in which, well over 400,000 barrels of crude oil spilled into the marine environment of Nigeria, for instance, led to 'environmental pollution, which resulted in the drying up of vegetation and deprivation of plant and animal life'.[1229]

As Echefu and Akpofure correctly indicates, the Department of Petroleum Resources (DPR), an arm of the Ministry of Petroleum Resources, recognised the serious environmental effects of oil and gas exploration and production by setting out environmental standards and guidelines to direct the execution of these projects.[1230] The 1991 DPR Environmental Guidelines and Standards (EGAS) for the petroleum industry is a comprehensive working document with serious consideration for the preservation and protection of the environment in the Niger-Delta, and thus the Nigerian environment, in the course of searching and producing crude oil.[1231] The EIA tool is also mandatory for a greater part of the oil and gas exploration and production activities.[1232]

[1227] These include the killing of plants and animals in the estuarine zone; the killing of organisms that leave on beaches; the killing of benthic (bottom-dwelling) organisms such as craps that live on the ocean floor; poisons algae; coats birds impairing their ability to fly or reducing the insulative property of their feathers thus making them more vulnerable to cold; endangers fish hatcheries in coastal waters and as well contaminates the flesh of commercially valuable fish. See Nwilo & Badejo n 902 *supra*.

[1228] See Nwilo & Badejo n 902 *supra*.

[1229] See Aghalino & Eyinla n 1150 *supra* at 178.

[1230] See Echefu N & Akpofure E 'Environmental Impact Assessment in Nigeria: Regulatory Background and Procedural Framework' *UNEP EIA Training Resource Manual* 63, available at http://www.unep.ch/etu/publications/14)%2063%20to%2074.pdf (accessed 20 April 2012).

[1231] *Ibid*.

[1232] See Echefu & Akpofure n 1238 *supra* at 64.

However, the problem is the duplication of functions and overlapping responsibilities in the processes and procedures which guide the execution of the various impact assessment tasks.[1233] Regrettably there is confusion resulting from the multiple environmental regulators in the oil industry, namely the DPR and the Federal Environmental Protection Agencies (FEPAs), both of which are equipped with instruments enabling them to conduct EIA without limitation.[1234] As a result, serious bottlenecks and bureaucratic confusions are created in the process. This results in a waste of financial and material resources.[1235] The DPR's environmental remedial enforcement tools are therefore inadequate, thus resulting in the devastation of the aquatic and terrestrial ecosystems and the cultural and historical resources.[1236]

These negative environmental impacts are exacerbated by the country's lax environmental regulations which are also inadequate and inefficient,[1237] and government complicity as a result of the government stake in the contractual arrangements. As Aturu correctly observes, a typical Nigerian PSC has no less than 27 clauses, dealing with a wide range of issues such as recovery of operating costs and capital cost allocation, rights and obligations of the parties, payment, confidentiality, valuation of crude oil, etc.[1238] However, there is no single provision on environmental protection or remediation in a typical Nigerian PSC.[1239] This levity with which the state treats the issue of environmental degradation results from compromising nature of the status of the state, through the NNPC, as both a regulator and a commercial partner of the oil companies, whose concerns are profit maximisation rather than protection of the environment. Emeseh also concludes that there is absolute lack of enforcement of the laws in the oil

[1233] *Ibid*.

[1234] See Echefu & Akpofure n 1238 *supra* at 70.

[1235] See Echefu & Akpofure n 1238 *supra* at 64.

[1236] See Echefu & Akpofure n 1238 *supra* at 65.

[1237] See Ogri n 895 *supra* at 17.

[1238] See Aturu n 904 *supra.*

[1239] *Ibid*.

industry due to prioritisation of economic development separately from environmental protection, weak governance structures and lack of organised and effective public pressure groups.[1240] As observed by Onokerhoraye, with regard to the enforcement of environmental regulations against oil companies in Nigeria,

> [a] number of environmental laws geared towards protecting the environment exist but are poorly enforced. The economic importance of petroleum to national development is such that environmental considerations are given marginal attention.[1241]

According to Amechi, in such a situation, the government will have less incentive to adopt a rigid and effective enforcement of environmental regulations against itself or its JV partners.[1242] Amechi cites the setting up of the Nigeria Liquefied Natural Gas (NLNG) project at the Bonny, Rivers State of Nigeria, as evidence of this reluctance as the government is economically actively involved in a project. With particular reference to the NLNG project, Emeseh observed that-

> …the mandatory environmental impact assessment required for the establishment of the project was not done until after the project was under way. …. None of the regulatory agencies [involved] attempted to enforce the law and when community problems broke out later, the federal government was actively involved in assisting to a memorandum of

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[1240] See Emeseh E 'The Limitation of Law in Promoting Synergy between Environment and Development Practices in Developing Countries: A Case Study of the Petroleum Industry in Nigeria', available at http://userpage.fuberlin. de/ffu/akumwelt/bc2004/download/emeseh_f.pdf (accessed 10 June 2012).

[1241] See Onokerhoraye AG 'Towards Effective Environmental and Town Planning Polices for Delta State', available at http://www.deltastate.gov.ng/enviromental.htm (accessed 15 May 2012).

[1242] See Amechi EP 'Poverty, Socio-Political Factors and Degradation of the Environment in Sub-Saharan Africa: the Need for a Holistic Approach to the Protection of the Environment and Realisation of the Right to Environment' 5(2) (2009) *Law, Environment and Development Journal (LEAD Journal)* 107 at 117.

understanding (MOU) between the NLNG and the community so that the first shipment of LNG would not be delayed.[1243]

Several Nigerian laws regulate the activities of the oil industry in the context of environment. These include, among others, the Petroleum Act and its regulations;[1244] the Oil Navigable Waters Act[1245] and its regulations,[1246] the Oil Terminal Dues Act,[1247] the Associated Gas Re-injection Act,[1248] and its regulations, the Federal Environmental Protection Agency Act,[1249] which has been repealed by section 36 of the National Environmental Standards and Regulations Enforcement Agency Act, 2007; and the Environmental Impact Assessment Act of 1992. It should be noted, however that the Regulations[1250] made pursuant to the Federal Environmental Agency Act have not been repealed despite the repeal of the Act itself.

Section 9(1)(b) of the Petroleum Act empowers the Minister of Petroleum Resources to make regulations on a wide range of issues including 'the prevention of pollution of water courses and the atmosphere'. The Act also empowers the Minister to revoke an OML if, in his opinion, the lessee, is not conducting operations continuously and in a vigorous and business-like manner in accordance with the basic work programme approved for the licensee or lessee in accordance with good oil field practice'.[1251] The phrase 'good oil field practice' has been interpreted in various ways depending on the

[1243] See Emeseh n 1248 *supra*.

[1244] The Petroleum Drilling and Production Regulations of 1969.

[1245] Cap 331, LFN 1990, as amended by Cap 06 L.F.N. 2004.

[1246] Oil Navigable Waters Regulations 1968.

[1247] Cap 339, LFN 1990.

[1248] Cap 26 LFN 1990.

[1249] Cap 131 LFN 1990.

[1250] The relevant Regulations with respect to the petroleum industry are the National Environmental Protection (pollution Abatement in Industries and facilities Generating Wastes) Regulations Statutory Instrument No. 9 of 1991; and the National Environmental Protection (Effluent Limitation) Regulations Statutory Instrument No. 8 of 1991.

[1251] See s 3 and 9 of the Petroleum Act.

understanding of each interpreter. For instance, for oil companies, it might mean minimising economic cost of production without regard to the environment. However, one agrees with Edu that it should incorporate an obligation to ensure minimal environmental harm.[1252] Regulation 25 of the Petroleum Drilling Regulation, on the other hand, provides that-

> [t]he licensee or lessees shall adopt all practicable precautions including the provision of up to date equipment approved by the Director of Petroleum Resources to prevent the pollution of inland waters, rivers, water courses, the territorial water of Nigeria or the high seas by oil, mud or other fluids or substances which might contaminate the water banks, or shore line or which might cause harm or destruction to fresh water or marine life and where any such pollution occurs or has occurred shall take prompt steps to control and if possible end it.

As Omorogbe notes, this regulation suffers from two major defects namely, a vague legal duty is imposed merely enjoining the operator to take prompt steps 'to control and if possible, end' the pollution in question; and it does not deal with land pollution at all.[1253]

Regulation 36 enjoins the operator to carry out his operations in accordance with good oil field practices, and to take 'reasonable steps' to control the flow and prevent the escape of waste out of the relevant areas.

Regulation 37 provides that-

> [t]he licensee or lessee shall maintain all apparatus and appliances in use in his operations, and all boreholes and wells capable of producing petroleum, in good repair and condition, and shall carry out all his operations in a proper and workman-like manner in accordance with these and other relevant regulations and methods and practices

[1252] See Edu K 'A Review of Existing Legal Regime on Exploitation of Oil and the Protection of the Environment' 37(2) (2011*) Common Wealth Law Bulletin* 307 at 309.

[1253] See Omorogbe n 1037 *supra* at 136.

> accepted by the Director of Petroleum Resources as good oil field practice, and take all steps practicable:
> …
> (d) to prevent the escape of petroleum into any water, well, spring, stream, river, lakes, reservoir, estuary or harbour; and
> (e) to cause as little damage as possible to the surface of the relevant area and to the trees, crops, building, structures and other property thereon.

Regulations 38 and 39 make provision for the use of approved methods and practices for the production of oil and gas and for confirming petroleum respectively. As Omorogbe argues, these are not very stringent, loosely worded, and contain only unrealistic and unlikely penalty of revocation if they are contravened by operators.[1254]

The Oil in Navigable Waters Act provides in general for prevention of pollution of water by marine vessels. In terms of section 1 of this Act, it is an offence under the Act for a Nigerian ship to discharge oil into part of the sea designated as 'prohibited sea area'. It is also an offence under section 3 of this Act to discharge oil from a vessel into the 'whole of the sea within the seaward limits of the territorial waters of Nigeria' and other waters within close limits including inland waters which are 'navigable by sea-going ships'. However, as Edu notes, this Act contains so many defences that it may be difficult to secure a conviction for an offence committed in its infringement.[1255] For instance, it is a complete defence to establish that the discharge from the vessel occurred for the purpose of securing the safety of any vessel; for the purpose of preventing damage to any vessel or cargo; for the purpose of saving life; as a consequence of damage to the vessel or by reason of leakage if the leakage was not due to any want of reasonable care.[1256]

[1254] *Ibid*.

[1255] See Edu n 1260 *supra* at 312.

[1256] *Ibid*.

Under section 3 of the Associated Gas Re-Injection Act, no company was to flare gas after 1 January 1984. The penalty prescribed for the contravention of this provision was forfeiture of all concessions granted in respect of the particular field or fields. However, the Act empowers the Minister of Petroleum Resources to issue a certificate to any oil company when he is satisfied that the utilisation or reinjection of the proposed gas is not appropriate or feasible in a particular field or fields and to impose a penalty for gas so flared. Edu highlights the shortcoming of this Act, namely, that the fine realised from gas flaring in contravention of this provision is paid to the federal government instead of the Niger-Delta, whose fauna and flora are gravely endangered and whose inhabitants' health is negatively affected.[1257]

This legislative framework is therefore not only lax but, as Aturu indicates, the main problem is the lack of the will on the part of government and its agencies to enforce the laws for a variety of reasons, including the fact that the government is also a business partner in the contractual arrangements with the oil companies, thus severely compromising its independence, fairness and firmness as a regulator.[1258] Aturu also indicates that apart from the apparent conflict of interest of the state as a regulator and commercial partner, the capacity of the government environmental regulating agencies to monitor the activities of the oil companies and their impacts on the environment is seriously doubtful.[1259] Mention is also made of corruption on the part of the officials of the regulating agencies as one of the factors for non-enforcement of environmental protection laws.[1260] Other defences include sabotage; the absence of negligence and showing that oil was contained in an effluent product from a refinery.[1261] The Act's effectiveness is further severely limited by the provision of section 12. This section stipulates that no action may be brought under the Act except with the consent of the

[1257] See Edu n 1260 *supra* at 320.

[1258] See Aturu n 904 *supra*.

[1259] See Aturu n 904 *supra*.

[1260] *Ibid*.

[1261] *Ibid*.

Attorney-General of the Federal Republic of Nigeria. According to Edu, the Attorney-General is not enthusiastic about the prosecution of oil companies and there is, therefore, neither a single case wherein the Attorney-General sued an oil company for violation of the law, nor has he given any person permission to prosecute the same. [1262]

According to Ogri, this legal framework, including the relevant legislation and the relevant common law, is incomplete as it ignores relevant international laws.[1263] These include the Merchant Shipping (Prevention of Pollution) or Law of the Sea convention order 1996 (Environmental Law and Management, 1996), which makes an enabling provision for the making of regulations implementing provisions of the UN Convention on the Law of the Sea (1982) relating to marine pollution by ships.[1264] Ogri contends that although it is not clear whether Nigeria is a signatory to any international environmental regulation laws, the Nigerian national environmental standards used by FEPA were adopted from international standards.[1265] Ogri concludes that despite existing environmental protection legislation affecting the Nigerian oil industry, its dismal and ineffective implementation to date leads to the conclusion that a comprehensive environmental policy is still some distance away.[1266] In this respect the Economic Community of West African States (ECOWAS), in the famous case of the *Socio-Economic Rights and Accountability Project (SERAP) v the Federal Republic of Nigeria,*[1267] held that while the Niger-Delta is endowed with arable land and water which the communities use for their social and economic needs; several multinational and Nigerian companies have carried along oil prospection as well as oil exploitation which caused and continue to cause damage to the quality and productivity of the soil and water, the oil spillage, which is the result of various factors including pipeline corrosion,

[1262] See Edu n 1260 *supra* at 313.

[1263] See Ogri n 895 *supra* at 19.

[1264] *Ibid*.

[1265] *Ibid*.

[1266] *Ibid*.

[1267] *SERAP v the Federal Republic of Nigeria* ECW/CCJ/JUD/18/12, at para 97.

vandalisation, and bunkering (among others) and this was said to be the major source and cause of ecological pollution in the region. As a member of the ECOWAS and party to African Charter, the Federal Republic of Nigeria was held to have failed to prevent or tackle the situation by holding accountable those who caused the situation and for failing to ensure that adequate reparation is provided for the victims. The court further held that 'the core of the problem in tackling the environmental degradation in the Region of Niger-Delta resides in lack of enforcement of the legislation and regulation in force, by the Regulatory Authorities of the Federal Republic of Nigeria in charge of supervision of the oil industry'.[1268]

The ghastly environmental consequences of oil and gas exploration and exploitation are also said to be aggravated by lack of access to justice.[1269] This is connected to the technical issue of lack of *locus standi* which could technically prevent interested parties from approaching the courts to challenge activities that are harmful to the national environment as it might be too difficult, if not impossible, to discharge this onerous requirement. As Emeseh indicates,[1270] this is apparent in the Nigerian case of *Oronto-Douglas v Shell Petroleum Development Company Ltd and 5 others.*[1271] In this case, the plaintiff, an environmental activist, sought to compel the respondents to comply with provisions of the Environmental Impacts Assessment (EIA) Act before commissioning their project (production of liquefied natural gas) in the volatile and ecologically sensitive Niger-Delta region of Nigeria. The case was, however, dismissed on the grounds *inter alia* that the plaintiff has shown no legal standing to prosecute the action.[1272]

[1268] *SERAP v the Federal Republic of Nigeria* n 1275 *supra* at para 108.

[1269] See Aturu n 904 *supra*; See also Amechi n 1250 *supra* at 115 to 116.

[1270] See Emeseh n 1248 *supra*.

[1271] (1999) 2 NWLR (Pt. 591) 466.

[1272] See also generally, Temitope R 'The Judicial Recognition and Enforcement of the Right to Environment: Differing Perspectives from Nigeria and India' 3 (2010) *NUJS Law Review* 423.

Several other cases, though not so blatantly decided, have tended to follow the unwritten rule that economic considerations should be prioritised over environmental concerns[1273] and judges have often exhibited their reluctance to grant injunctions against oil companies even where oil operations have been discovered to have adversely affected host communities and their environment.[1274]

To summarise the environmental impacts of oil and gas exploration, exploitation and production in Nigeria, one can borrow the following words from Temitope*:*

> [i]n a nutshell, the exploration and exploitation of oil resources in the Niger-Delta has deleterious impacts on its rich and bio-diverse environment. While there are other sources of environmental pollution in the Niger-Delta including the direct and indirect effects of a rising urban population, flooding and salt water incursion (especially in the rainy season), it appears that oil-induced pollution is the major contributor as evidenced by the figures highlighted above.[1275]

4.6.5. Lack of Transparency and Accountability

The lack of transparency and due process in the allocation of oil licences is particularly a cause for concern because of Nigeria's history of corruption. It is widely accepted that

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[1273] Among others, *Shell Petroleum Development Company Ltd v Councillor F Farah and 7 others* (1995) 3 NWLR (pt 382) P. 148; *Edise & Others v William International Limited* (1986) 11 CA 187; *Elf (Nigeria) Limited v Sillo* (1994) 6 NWLR pt. 350; and *Shell Petroleum Development Company Ltd. v Tiebo* (1996) 4 NWLR pt. 445, 657; See also Ekpu A 'Environmental Impact of Oil on Water: a Comparative Overview of Law and Policy in the United States and Nigeria' 4 (1995) *Denver Journal of International Law* 214. See also *Chinda & Ors v Shell-BP* (1974) 2 RSLR 1.

[1274] See Frynas J 'A Socio-Legal Approach to Natural Resource Conflicts – Environmental Impact of Oil Operations on Village Communities in Nigeria', a paper presented at the African Environments: Past and Present, 1999.

[1275] See Temitope n 1280 *supra* at 433.

the misappropriation of public funds and assets by corrupt elites has been a major cause of under-development.[1276]

As the Nigerian economy depends almost entirely on the oil and gas sector, the feature of the legal and regulatory framework discouraging corruption are a key to the developmental success of the country. In the area of transparency, the Nigeria Extractive Industries Transparency Initiative Bill was enacted by the National Assembly and signed into law by the Olusegun Obasanjo administration in 2007.[1277] This legislation could be a useful tool for government and citizens in the quest for better transparency and responsibility in the management of revenues from mining, oil and gas. This Act provides for the establishment of the Nigeria Extractive Industries Transparency Initiative (NEITI) charged with the responsibility of, among others, developing a framework for transparency and accountability in the reporting and disclosure by all extractive industry companies of revenue due to or paid to the federal government.[1278] The primary objectives of the NEITI are to-

- ensure due process and transparency in the payments made by all extractive industry companies to the Federal Government and statutory recipients;
- monitor and ensure accountability in the revenue receipts of the Federal Government from extractive industry companies;
- eliminate all forms of corrupt practices in the determination, payments, receipts and posting of revenue accruing to the Federal Government from extractive industry companies;
- ensure transparency and accountability by government in the application of resources from payment received from extractive industry companies; and

[1276] See *Global Witness* n 504 *supra* at 6.

[1277] See a copy of the Bill at http://mmsd.gov.ng/documents/pdfs/Nigeria%20Extractive%20Industries%20Transparency%20Initiative%20Bill.pdf (accessed 13 June 2013).

[1278] See the Preamble to the Nigeria Extractive Industries Transparency Initiative, (NEITI) Act, 2007.

- ensure conformity with the principles of Extractive Industries Transparency Initiative.[1279]

In order to achieve its objectives under this Act, the NEITI shall perform the following functions:

- the development of a framework for transparency and accountability in the reporting and disclosure by all extractive industry companies of revenue due to or paid to the federal government;
- the evaluation, without prejudice to any relevant contractual obligations and sovereign obligations the practices, of all extractive industry companies and government respectively regarding acquisition of acreages, budgeting, contracting, materials procurement and production cost profile in order to ensure;
- ensuring transparency and accountability in the management of the investment of the federal government in all extractive industry companies;
- obtaining, as may be deemed necessary, from any extractive industry company an accurate record of the cost of production and volume of safe of oil, gas or other minerals extracted by the company at my period, provided that such information shall not be used in any manner prejudicial to the contractual obligation or proprietary interests of the extractive industry company;
- requesting from any company in the extractive industry, or from any relevant organ of the federal state or local government, an accurate account of money paid by and received from the company at any period, as revenue accruing to the federal government from such company for that period; provided that such information shall not be used in a manner prejudicial to contractual obligations or proprietary interest of the extractive industry company or sovereign obligations of government;
- monitoring and ensure that all payments due to the federal government from all extractive industry companies, including taxes, royalties, dividends, bonuses, penalties, levels and such like are duly made;
- identifying lapses and undertake measures that shall enhance the capacity of any relevant organ of the federal state or local government having statutory responsibility to monitor revenue payments by all extractive industry companies to the federal government;

[1279] See s 2 of the NEITI Act.

- disseminating by way of publication of records, report or otherwise any information concerning the revenues received by the federal government from all extractive industry companies as it may consider necessary;
- promoting or undertake any other activity related to its functions and which in its opinion, is calculated to help achieve its overall objectives as enumerated in section 2 of this Act; and
- ensuring that all fiscal allocations and statutory disbursements due from the federal government to statutory recipients are duly made.[1280]

4.6.6. Lack of Communal Involvement

As Oguine points out, 'one of the most important issues facing the Nigerian nation today is how to ensure that communities in the areas in which upstream petroleum activities take place receive an equitable share of the nation's revenues from such activities'.[1281] This is also echoed by the *World Bank*, which indicated that one of the three major constraints to the regulation of the energy and mineral sector in Nigeria is the absence of the requirement for community participation in the planning and development of oil activities.[1282]

The issue of communal involvement or non-involvement in local oil and gas exploration and exploitation activities is serious, painful, and challenging. The local communities are the parties most affected by resource exploitation both from a socio-economic and environmental point of view and from a health and safety perspective.[1283]

[1280] See s 3 of the NAETI Act.

[1281] See Oguine I 'Nigeria´s Oil Revenues and the Oil Producing Areas' 4(10) (2000) *The Journal*.

[1282] See *World Bank*, 1995, Volume II, annex J, available at *www-wds.worldbank.org/servlet/.../WDSP/IB/.../multi_page.txt* (accessed 13 March 2012).

[1283] See the *SERAP* case n 1275 *supra*. In this case the court unanimously found that the Federal Republic of Nigeria violated articles 21 (on the right to natural wealth and resources) and 24 (on the right to a general satisfactory environment) of the African Charter on Human and

The non-involvement of local communities in the extractive activities of the petroleum industry is a major cause for petro-violence, as a result of discontent brought about by the development of extractive industries.[1284]

As Guichaoua correctly points out, this discontent arises from at least one of two negative effects, namely, 'those directly produced by the presence of extractive industry complexes, and/or those deriving from the redistribution of revenues collected from natural resources'.[1285] According to Ahmed and Singh, the intergovernmental fiscal arrangements in Nigeria generates a large vertical imbalance in favour of the centre while allocations to the states do not depict any clear pattern of redistribution between regions or any correlation with relative needs.[1286]

The direct impact of extractive activities on a given region involves the allocation of legal rights in the form of ownership to land.[1287] The issue of who is the owner of territory affected by mineral exploitation often sparks systematic tensions between the state and the local community.[1288] It is often tempting for central states, such the federal state of Nigeria, to arbitrarily take away the local population's traditional land, sometimes by cynically exacerbating its internal divisions, especially in volatile areas which are already

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Peoples' Rights by failing to protect the Niger-Delta and its people from the operations of oil companies that have for many years devastated the region.

[1284] See Guichaoua Y 'Oil and Political Violence in Nigeria' in Lesourne J & Ramsay WC (eds) *Governance of Oil in Africa: Unfinished Business* (IFRI, PARIS 2009*)* 15.

[1285] *Ibid*.

[1286] See Ahmad E & Singh R 'The Political Economy of Oil Revenue Sharing in Nigeria' *Working Paper*

Series WP/03/(?) 2003 International Monetary Fund, Washington, D.C, available at http://www.imf.org/external/pubs/ft/wp/2003/wp0316.pdf (accessed 20 January 2012).

[1287] *Ibid*.

[1288] *Ibid*.

socially or ethnically strained or fragmented, such as the Niger-Delta.[1289] Nigerian oil is mainly produced from the Niger-Delta area.[1290] As Ojakorotu and Gilbert put it-

> ...despite the fact that the Delta region [in Nigeria] "accounts for over ninety percent of the country's export earnings, 40 percent of its Gross Domestic Product (GDP), and at least eighty per cent of her annual income", ...there has been a conscious and deliberate policy geared towards the subordination of (marginalisation/ sideling) of vital issues affecting them; their elimination (exclusion) from the enjoyment of the oil proceeds derived from their land; and the virtual "prohibition" (exclusion) of Niger-Deltans from assuming the leadership of the Nigerian state. The domination, marginalisation and exclusion of the Delta ethnic minorities was a colonial creation, which was perfected, legitimised and institutionalised by successive Nigerian administrations controlled by three dominant ethnic groups, especially the Hausa/Fulani.[1291]

Osuoka also indicates that,

> [in order] to facilitate exploitation of oil and gas resources, the Land Use Act decreed by past military regimes vest ownership and control of all land and mineral resources on the state. Government, without having to make any reference to communities, gives away communal lands and forests to petroleum companies for exploration and exploitation of crude oil and gas. In the oil bearing Niger-Delta region, the oil industry creates conditions for social dislocation and communal violence, as land expropriation by the state for oil activity creates scarcity of productive land.[1292]

An additional source of conflict comes from the distribution of the local benefits drawn from the industrial presence: employment and subcontracting (notably security). As Guichaoua notes,

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[1289] *Ibid*.

[1290] See Omorogbe n 1037 *supra* at 143.

[1291] See Ojakorotu & Gilbert n 1187 *supra*.

[1292] See Osuoka n 1178 *supra* at 2.

> [t]he local population is not always able to fill the positions for skilled, on-site workers and thus must settle for the lowest paying jobs. Even where the human resources would be locally available, companies sometimes prefer personnel from elsewhere, drawing them from the clients of elite leaders, which further fuels the local community's feelings of alienation. This last point raises the considerable issue of the particular methods of governance adopted by the national authorities of states that have gained sudden access to extractive revenues. State behaviour is thus an important source of resentment brought about by natural resources.[1293]

According to Omorogbe, the main legal issues for the oil communities in the Niger-Delta are the right to development, rights over natural resources, and rights for injuries suffered as a result of oil industry activities.[1294] The right to development arises not only from international customary law but, in the African context, also from the African Charter of Human and People's Rights. Nigeria has adopted this regional instrument as part of its municipal law, in the form of the Cap. 7 of the Laws of the Federation of Nigeria 1990. Article 22 of this law provides that 'all persons shall have a right to their economic, social and cultural development with due regard to their freedom and identity in the equal enjoyment of the common heritage of mankind. States shall have the duty, individually and collectively, to ensure the exercise of the right to development. As Omorogbe states, there is therefore a right to development for peoples, a right which surely applies to the oil producing communities and to any other community in Nigeria.[1295]

Notwithstanding ownership of petroleum resources being vested in the Nigerian federal government, some communities in the Niger-Delta have attempted to assert right over natural resources under their land. One agrees with Omorogbe that rather than asserting rights to natural resources underneath their lands, these communities should claim adequate protections through laws that provides for the allocation of a greater

[1293] See Guichaoua n 1297 *supra* at 16.

[1294] See Omorogbe n 1037 *supra* at 144.

[1295] See Omorogbe n 1037 *supra* at 146.

percentage of proceeds arising from the sale of natural resources to the affected communities; and through ensuring that they are not left out of the development process.[1296]

4.7. Conclusion

Like Angola, Nigeria has vast petroleum resources. However, despite this natural fortune, the Nigerian state is characterised by serious socio-economic and socio-political problems ranging from marginalisation of host communities, widespread corruption and patronage, excessive oil dependency, the Dutch-disease and the notorious 'resource curse', negative environmental impacts, lack of transparency and accountability, and petro-violence.

In order to regulate the exploitation of these resources, like the UK, Nigeria has adopted a hybrid system for the regulation of upstream oil and gas resources. It has both special petroleum law and several contractual arrangements in the form of PSCs and service contracts. Like the UK Petroleum (Production) Act of 1998, the Nigerian Petroleum Act of 1969 makes express provision for state ownership of petroleum resources *in situ*. The state participates in all upstream petroleum activities through its NOC, the NNPC which is similar the UK's BNOC. Several IOCs and MOC participate in the exploitation of petroleum resources through licences such as OELs, OPL, and OMLs. Of particular importance is the fact that like the UK, Nigeria has adopted a discretionary system for the award of petroleum licences. This system is based on the applicant company's work programme and factors that are considered are the company's financial and technical capacity, among others. Contractual arrangements including PSCs and service contracts are utilised to ensure state participation in these activities. It is important to note that due to criticism that was made against Nigeria's first PSC which was said to be

[1296] See Omorogbe n 897 *supra* at 149.

biased against the state and in favour of Ashland, the current move is towards service contracts rather than PSCs.

The legal reforms under way seems to be in line with international best practices in terms of issues such as transparency and accountability, good corporate governance, environmental protection, and fiscal issues. However, the PIB is not yet law in Nigeria at the time of writing and thus the problems identified earlier remains. In addition the PIB is criticised as follows:

> the PIB as originally proposed is exclusionary as it denies host communities the right to ownership and control, and did not provide for their active participation. If the proposed 10% percent equity participation is eventually included as a substantive provision in the PIB, it will be a great step towards achieving resource control rights and active participation by HCs.[1297]

[1297] See Songi O 'Resource Control, Community Participation and Nigeria's Petroleum Industry Bill' available at http://www.eisourcebook.org/cms/Dec%202012/Resource%20Control,%20Community%20Participation,%20and%20Nigeria%5C's%20Petroleum%20Industry%20Bill.pdf (accessed 27 April 2013).

CHAPTER 5
THE SOUTH AFRICAN OIL AND GAS LAW: A UNIQUE MODEL

5.1. Introduction

In this chapter it is sought to analyse the oil and gas law of South Africa. With the adoption of a democratic dispensation in South Africa in 1994, this former British colony adopted an interesting and unique model for the regulation of upstream petroleum[1298] activities. As Clark indicates, 'different historical circumstances- a largely downstream sector, lack of local oil reserves and a dominant state energy system in the upstream- meant that South Africa took a different tact following democratic elections in April 1994'.[1299]

Unlike Angola and Nigeria, both of which have adopted a hybrid system;[1300] and unlike Iran, Iraq, and Saudi Arabia, which favoured negotiation-based systems;[1301] South

[1298] Petroleum is defined in s 1 of the MPRDA (see n 37 *supra*) as 'any liquid, solid hydrocarbon or combustible gas existing in a natural condition in the earth's crust and includes any such liquid, solid hydrocarbon or combustible gas, which gas has in any manner been returned to such natural condition, but does not include coal, bituminous shale or other stratified deposits from which oil can be obtained by destructive distillation or gas arising from a marsh or other surface deposit'.

[1299] See Clarke D *Crude Continent: the Struggle for Africa's Oil Prize* (Profile Books 2008) 410. Clarke is the chairperson of the oil and gas consulting global firm, Global Pacific Partners.

[1300] As indicated in chapter 3 of this study, under the hybrid system, a general legislation sets out certain provisions and minimum standards or conditions for the granting of rights to explore for and exploit petroleum resources. It also provides for certain important matters to be settled by negotiation between the government and individual businesses. This is arguably the most successful system currently practiced. Countries using this system include Britain, India, Malaysia, the Netherlands, New Zealand, Trinidad and Tobago, and Norway. See Hossain n 405 *supra* at 101.

Africa has adopted a general, yet unique, legislation system for the regulation of oil and gas exploitation. As illustrated in chapter 3 above, under the general legislation or sector-specific legislation system, the relevant legislation fixes predetermined conditions under which the rights to explore for and exploit petroleum resources are granted by means of standard licences or leases, including royalty taxes and other payments to be made by licensees. A further distinction can be made. Unlike other countries such as the USA, Canada, Australia, and most EEC countries,[1302] South Africa has adopted a generic legislative approach in the sense that its legislation is more general or wider. The South African principal legislation on petroleum exploration, development and production, the MPRDA, in addition to oil and gas, also uniquely covers the regulation of solid minerals such as platinum, gold, or coal.

The South African regulation of upstream oil and gas activities is made up of relevant provisions of the 1996 Constitution, the MPRDA[1303] as amended by the Mineral and

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[1301] Again as illustrated in chapter 3 of this study, under a negotiation-based system, there is no sector-specific legislation, or even if there is some legislation, it is of a very general nature providing merely a general framework. Under this system, the government grants rights to explore for and exploit petroleum resources on the basis of individually negotiated agreements with petroleum businesses in the absence of comprehensive petroleum legislation. Although this system was initially used only in early concession countries like Iran, Iraq, and Saudi Arabia, it has, relatively recently, been used, for instance, by other countries such as Indonesia and Bangladesh. See Hossain n 405 *supra* at 101.

[1302] See Hossain n 405 *supra* at 100.

[1303] See n 37 *supra*. Other legislation which has an impact on oil and gas exploitation include, among others, the Income Tax Act No. 113 of 1977, as amended by the Income Tax Act No. 58 of 1962, as amended by Act No.101 of 1978 and the General Law Amendment Act No. 49 of 1996; the National Environmental Management Act (NEMA) No. 107 of 1998; the NEMA: Air Quality Act 39 of 2004; the National Environmental Management: Waste Act No. 59 of 2008 ('the Waste Act'); the National Water Act No. 36 of 1998 (the NWA); the Atmospheric Pollution Prevention Act No. 45 of 1965; the National Forest Act No. 10 of 1998; and the National Heritage Resources Act No. 25 of 1999.

Petroleum Resources Development Amendment Act,[1304] and its Regulations,[1305] the Minerals and Petroleum Resources Royalty Act,[1306] and the Mineral and Petroleum Resources Royalty (Administration) Act.[1307] Interestingly, unlike constitutions of most petro-states, both in Africa and beyond, the South African Constitution of 1996 does not make any express provision for permanent state sovereignty or ownership of petroleum resources.[1308] All that the Constitution provides for, within the context of the right to environment in section 24, is the right, 'to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that secure ecologically sustainable development and use of the country's natural resources while promoting justifiable economic and social development'.[1309] The MPRDA was promulgated in 2002, in order to give effect to this constitutional mandate, within the context of petroleum (and mineral) regulation.[1310]

Unlike the Constitution, being the principal Act that regulates petroleum exploitation, the MPRDA makes explicit provision for state 'sovereignty' and 'custodianship'[1311] of

[1304] Act No. 49 of 2008. This Act has after a very long time only come into operation on 7 June 2013. See the Proclamation in Government Gazette No. 36512 Notice No. 14, 2013.

[1305] The Mineral and Petroleum Resources Regulations (Government Notice No. 26275 of 23 April 2004).

[1306] Act No. 28 of 2008 (hereinafter 'the Royalty Act').

[1307] Act No. 29 of 2008 (hereinafter 'the Administration Act').

[1308] Section 24(b)(iii) of the Constitution merely provides that everyone has a right to 'secure ecologically sustainable development and use of natural resources'.

[1309] See s 24(b)(iii) of the Constitution. See also AJ Van der Walt *Constitutional Property Law* 1st ed (Juta 2005) 378.

[1310] See the preamble to the MPRDA which affirms 'the state's obligation to protect the environment for the benefit of present and future generations to ensure ecologically sustainable development of the mineral and petroleum resources and to promote economic and social development'. See also generally, NEMA (n 1311 *supra*) which is the principal Act and national framework legislation regulating environmental management in general in South Africa.

[1311] See s 2(b) of the MPRDA.

petroleum resources. As the custodian of the nation's petroleum resources, acting through the authorised organ, the Minister of Mineral Resources (formerly Minerals and Energy), the state is empowered through the MPRDA to issue licenses to applicants who wish to exploit these resources. It is through these licenses that the rights and permits to explore, develop, and produce oil and gas, are attributed. As will be demonstrated, the relevant rights and permits include a reconnaissance permit, a technical cooperation permit, an exploration right, and a production right.

It is also interesting to note that although the MPRDA makes express provision for the internationally accepted principle of state sovereignty over petroleum resources,[1312] the Act is silent on the issue of ownership. The MPRDA certainly divests land owners of their ownership of petroleum resources *in situ* under the common law. However, it does not expressly or by necessary implication vest ownership of petroleum (and mineral) resources in the state. The Act merely confers sovereignty[1313] and custodianship[1314] on the state.[1315] The state is merely a custodian of the resources.

The language used in the MPRDA constitutes another unique feature of the Act in that it vests ownership of petroleum resources in South Africa in the nation. This is clear from the phrases 'the nation's petroleum resources' which appears in sections 2(b), 2(c), 2(d), and 2(h) of the MPRDA;[1316] and 'petroleum resources are the common heritage of all

[1312] See s 2(a) and the Preamble of the MPRDA.

[1313] Section 2(a) of the MPRDA.

[1314] Sections 2(b), 3(1), and 3(2) of the MPRDA.

[1315] See also Dale M 'Comparative International and African Mineral Law as Applied in the Formation of the New South African Mineral Development Legislation' in Bastida *et al* n 35 *supra* at 823.

[1316] Section 2(b) of the MPRDA provides that the object of this Act (the MPRDA) is to give effect to the principle of the state's custodianship of the *nation's petroleum resources* (own emphasis); s 2(c) provides that one of the objects of the Act is to promote equitable access to the *nations petroleum resources* (own emphasis); s 2(d) provides that the object of the Act is to substantially and meaningfully expand opportunities for historically disadvantaged persons, including women,

the people of South Africa and the state is the custodian thereof for the benefit of all South Africans'.[1317] However, the poetic choice of terms may pose some difficult interpretation problems. The 'nation' is neither a legal nor a juristic person under either international law[1318] or domestic law, and it cannot hold any right such as the right of ownership.

Other unique features of the South African legislative framework, and the MPRDA in particular, include its regulation of both mineral and petroleum upstream sectors jointly in a single piece of legislation; the lack of constitutional recognition of ownership and permanent state sovereignty of petroleum resources; its comprehensive, objective, transparent and arguably liberal licensing criteria; the absence of discretionary or auction licensing systems, the lack of contractual arrangements with model clauses (that is, the South African system is a concessionary rather than a contractual system); the unique mode of state participation; the comprehensive and stringent environmental regulation of upstream activities; and most importantly, the requirements and implementation of social and labour plans, and the socio-economic empowerment issues.[1319]

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to enter the petroleum industry and to benefit from the exploitation of the *nation's petroleum resources* (own emphasis); and s 2(h) provides that the MPRDA gives effect to s 24 of the Constitution by ensuring that the *nations' petroleum resources* (own emphasis) are developed in an orderly and ecologically sustainable manner while promoting justifiable social and economic development.

[1317] Section 3(1) of the MPRDA.

[1318] According to Farley 'states are the recognized actors in international politics - not nations. Nations (typically ethnic groups each with a common language and a common sense of community) differ from states in one vitally important way: states possess the attribute of sovereignty. Nationhood is a demographic and psychological phenomenon; statehood is a formal-legal phenomenon. Only states, that is, possessors of sovereignty, may become members of the state system'. See Farley L *Plebiscites and Sovereignty* (London: Mansell Publishing Limited 1986) 7.

[1319] See Dale n 1323 *supra*.

From a fiscal point of view, like Angola and Nigeria, South Africa has adopted a concession system for upstream oil and gas activities. For those activities, the usual mix of royalties, corporate income tax, and special taxes are applied, as is the case with most concession system.[1320] The South African concession system is profits-based. The royalty system includes components of a standard corporate income tax[1321] and a profit based royalty levied on the gross sales of production.[1322] As Tordo explains,

> under a concessionary system, the title to hydrocarbons passes to the investor at the borehole. The state receives royalties and taxes in compensation for the use of the resource by the investor. Title to and ownership of equipment and installation permanently affixed to the ground and/or destined for exploration and production of hydrocarbons generally passes to the state at the expiry, or termination, of the concession (whichever is earlier). The investor is typically responsible for abandonment.[1323]

On the other hand, with regard to a contractual system, Tordo indicates that-

> …the investor acquires the ownership of its share of production only at the delivery point. Title to and ownership of equipment and installation permanently affixed to the ground and/or destined for exploration and production of hydrocarbons generally passes to the state immediately. Furthermore, unless specific provisions have been included in the

[1320] See Van Meurs P 'Maximising the Value of Government Revenues from Upstream Petroleum Licences under High Oil Prices: A Discussion Document' June 7 2008, available at http://www.petrocash.com/documents/free/80080003.pdf (accessed 25 October 2012).

[1321] A standard corporate tax rate of 28 percent and a secondary tax on companies (STC) at 10 per cent is levied on production companies. See section 64B(2) and (3) of the Income Tax Act and the Budget Tax Pocket Guide 2012 available at www.sars.gov.za (accessed 25 October 2012).

[1322] The rate varies depending on the Earnings before Interest and Taxation (EBIT) and gross sales. For refined minerals the maximum rate is 5 percent and for unrefined minerals, the rate is 7 per cent.

[1323] See Tordo n 417 *supra* at 8.

> contract (or in the relevant legislation) the government (or the national oil company, "NOC") is typically legally responsible for abandonment.[1324]

As discussed earlier, unlike major oil producers in Africa, the Middle East and elsewhere, there is no provision in South Africa for contractual arrangements for oil and gas exploration, development, and production. As Barrows indicate, in South Africa there is no provision for JVs, production sharing [contracts] or [signature or production] bonuses'.[1325] However, the Petroleum Agency South Africa (PASA) has developed templates of a typical reconnaissance permit, exploration right, and production right.

In this chapter, a critical analysis of the current primary oil and gas laws or the legal frameworks for regulating the upstream development, exploration, and production of oil and gas resources in South Africa is conducted. These laws are discussed in terms of ownership, acquisition of these resources, the legal nature of the rights, the state or government participation in their exploitation, assignment of rights, the transferability and revocation of rights, as well as recent legal reforms. The South African unique model is investigated and critically discussed. The key features of this model are discussed. Its weaknesses, challenges and strengths are highlighted. This model is critically evaluated to determine its effectiveness in protecting these petroleum resources from control by IOCs and the concomitant depletion, exploitation, abuse and monopolisation of these resources. However, before this model is considered, it is necessary to provide a contextual background of the South African petroleum endowments, as insufficient as they are, a brief exploration history, and the current exploration activities in the country is necessary.

5.2. Oil and Gas Exploration to Meet South Africa's Energy Demands

The Republic of South Africa is situated at the far southern tip of the African continent. It constitutes at least 4 per cent of the land area of the continent of Africa and covers a

[1324] *Ibid*.

[1325] See Barrows n 82 *supra* at 241.

vast land area of 1,219,090 square kilometres,[1326] with a population of more than 49 million, as of 2009.[1327] At the time of writing, Statistics South Africa reported that this population has significantly grown from 44.8 million in 2001 to 51.77 million in 2011.[1328] South Africa is almost the size of Germany, Italy and France combined, and one eighth the size of the USA.[1329] The country is bordered by Namibia, Botswana, Zimbabwe and Swaziland, and the Atlantic and Indian oceans. It completely encircles the tiny Lesotho kingdom.[1330]

The energy sector is critical to South Africa's economy, contributing about 15 per cent to the country's GDP in 2009.[1331] In South Africa the major primary energy sources are indigenous coal[1332] and uranium, imported oil and a small quantity of hydroelectricity.[1333]

[1326] See Matsho J *The Retail Petroleum Industry in South Africa* a Dissertation in Fulfillment of the Degree of M.Com. in Economics University of Zululand 2010 at page 7.

[1327] This is according to Statistics South Africa's (Stats SA) *Mid-Year Population Estimates, 2009*.

[1328] See http://www.southafrica.info/about/people/population.htm#ixzz2DbRcYXoR (accessed 30 October 2012).

[1329] See the *Petroleum Agency SA* 'Petroleum Exploration in South Africa: Information and Opportunities' available at http://www.petroleumagencysa.com/files/PetExplOpp2010web.pdf 3 (accessed 24 August 2012) at 2.

[1330] *Ibid*.

[1331] See *The South African Yearbook* at 182, available at http://www.gcis.gov.za/content/resource-centre/sa-info/yearbook/2009-10 (accessed 30 October 2012)

[1332] This was 77 percent in 2009. See *The South African Yearbook, 2009* n 1339 *supra* at 188. See also Department of Minerals & Energy *Digest of South African Energy Statistics 2006.* See also *The National Transport Master Plan 2050* 'The Implications of Global Oil Depletion for Transport Systems in South Africa' available at http://www.kzntransport.gov.za/reading_room/reports/natmap/NATMAP%20Implications%20of%20Global%20Oil%20Depletion%20for%20Transport%20Systems%20in%20SA.pdf (accessed 24 August 2012) at page 10.

However, the demand for energy in the form of liquid fuels, the primary source of which is crude oil, cannot be underestimated.[1334] As Maas observes, 'the demand for liquid fuels has increased from 9,0 Gl (gigalitre) in 1969 to 18.1 Gl [per annum] in 1989',[1335] and 'the total liquid fuel demand is expected to increase from 18.7 Gl in 1990 to 33, 2 Gl in 2020'.[1336] It is also reported that the 'delay in the implementation of the 82 billion crude oil refinery at the Coega Industrial Development Zone (IDZ) in Port Elizabeth could plunge the country [South Africa] into a "fuel crises" similar to the energy crises facing Eskom'.[1337] It is therefore, among others, for this reason that one of the key objectives the Department of Energy's energy policy, is to diversify primary energy sources and reduce dependency on coal.

Relying heavily on the imports of crude oil,[1338] the production of oil and gas in South Africa is very minimal compared to the Middle East and other African petro-states such

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[1333] See the *Integrated Energy Plan for the Republic of South Africa, Department of Minerals and Energy* 19 March 2003 at http://www.info.gov.za/view/DownloadFileAction?id=124574 (accessed 24 August 2012); and the Integrated Resource Plan For Electricity 2010-2030 at http://www.energy.gov.za/IRP/irp%20files/IRP2010_2030_Final_Report_20110325.pdf (accessed 24 August 2012). See also Maas WF *The Impact of the Utilisation of Natural Gas Resources on the South African Economy* Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Commerce in the Subject of Economics at the University of South Africa 1990 at 14.

[1334] See Maas n 1341 *supra* at 115.

[1335] The transport sector leads this demand followed by household and then industry. See Maas n 1341 *supra* at 59-60.

[1336] See Maas n 1341 *supra* at 61.

[1337] See *City Press* 30 September 2012 'PetroSA says it's Crunch Time on R82bn Refinery' quoting the current CEO of PetroSA, Mrs Nosizwe Nokwe-Macamo.

[1338] As the Petroleum Agency of South Africa indicates, 'South Africa imports approximately 66% of its crude oil. South Africa has refining capacity of 662 000 bbl/d requirements, mainly from Saudi Arabia, Iran, (including coal to liquids and gas to liquids capability), Nigeria, and Angola'. See *Petroleum Agency of South Africa* n 1337 *supra*. See also *South Africa Yearbook* n 1339 *supra* at 191.

as Nigeria and Angola. As Clarke correctly points out 'South Africa remains a quasi-frontier play with small oil and gas production'.[1339] Writing in 2008 in his seminal work: *Crude Continent: the Struggle for Africa's Oil Prize*, Clarke noted that in South Africa-

> [a]t present proven oil reserves are small, at fewer than 40 MMBLS. Total potential reserves are put at 1BBLS by PASA, but this is perhaps speculative. Natural gas reserves are around 826 BCF. There has been oil production of 25,000 BODP from Oribi field (15 MMCFD of gas flared) and the PetroSA-Pioneer Sable field came onstream in 2003; gas at 200 MMCFD and 10,000 BCPD comes from F-A gas field to feed the Mossgas synfuels plant. The current lifespan is but a few years, even after a new effort under the South Coast Gas Project.[1340]

Despite its generous endowment in solid minerals, South Africa therefore has very little petroleum resources, and relies heavily on imports for oil and gas.[1341] As Clarke observes, although South Africa can correctly claim to be the economic giant or goliath of sub-Saharan Africa, with a 'degree of African exceptionalism' and large energy resources, it has 'limited oil and exploration potential'.[1342] Matsho reiterates that 'South

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[1339] See Clarke n 1307 *supra* at 348.

[1340] See Clarke n 1307 *supra* at 349.

[1341] See the *White Paper on the Energy Policy of the Republic of South Africa* (1998) available at http://www.earthlife.org.za/wordpress/wp-content/uploads/2009/03/dme-white-paper-on-energy-policy-of-south-africa-print2.pdf (accessed 10 September 2012). See also Maas n 1341 *supra*. Like many other countries which depended heavily on crude oil from the Middle East, South Africa became vulnerable to the crude oil supply boycotts in 1974 and 1975 and as a result, took a major policy shift aimed at reducing its dependence on Middle East crude oil. This policy became known as the policy of self-sufficiency and it was aimed at self-sufficiency in the liquid fuel supply and the maintenance thereof (see the *1986 South African Energy Policy* at page 6). This means that South Africa supplies most of its secondary and primary energy requirements from indigenous sources such coal, gas, hydro-electricity, pump storage, and nuclear energy. The boycott from the Middle East thus 'spurred a two-way action, namely the expansion of SASOL's synthetic fuel facilities and the search for oil'. See Maas n 1341 *supra* at 81. As crude oil, the primary energy source of liquid fuel is still imported, the search for this resource is still important. See Mass n 1341 *supra* at 44-45.

[1342] See Clarke n 1307 *supra* at 81.

Africa has very little oil and 95 per cent of our crude oil is imported. South Africa has fairly small gas fields off the South Coast, mainly from Mossgas'.[1343] Raseroka and McLachlan also indicate that 'promising petroleum exploration plays include:…conventional gas, unconventional, possibly biogenic gas (associated with high concentrations of helium -up to 26 per cent) that occurs in the Witwatersrand Group and other ancient basement rocks in the Welkom and Evander gold field areas, deep tight shale gas, and conventional oil'.[1344]

The country imports crude oil largely from the Middle East[1345] and North Africa to meet its 95 per cent demand. However, it is feared that this dependency on crude oil imports could plunge the country into a 'fuel crises'[1346] in the future.[1347] Alternative energy sources must therefore be explored. This includes exploration for crude oil reserves.[1348] In line with the demand for alternative energy sources, in 2011 the South African cabinet approved a report of the Department of Energy Affairs titled the 'Energy Security Master Plan, Project Mthombo', which recommended that 'a greater proportion of South Africa's liquid fuels should be produced domestically'.[1349]

[1343] See Matsho n 1334 *supra* 3.

[1344] See Raseroka L & McLachlan IR 'The Petroleum Potential of South Africa's Onshore Karoo Basins' Paper prepared for AAPG International Conference and Exhibition, Cape Town, South Africa, October 26-29, 2008) available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf. 3 (accessed 24 August 2012).

[1345] Primarily from Saudi Arabia and Iran who account for 81 percent of imported crude oil. See the *Integrated Energy Plan for the Republic of South Africa* n 1341 *supra*.

[1346] See *City Press* n 1345 *supra*.

[1347] *Ibid*.

[1348] *Ibid*.

[1349] See *Energy Management News* 17(2) (June 2011) 'Vale and Xstrata Commission Energy Management Solution that can Save Mines Millions in Energy costs' 2. See also http://www.petrosa.co.za/building_futures/Pages/Project-Mthombo.aspx (accessed 20 September 2012).

The urgent need for exploration of oil and gas in South Africa is also acknowledged by government, particularly in the light of the following national imperatives:[1350]

(a) the drive to diversify sources of energy and thereby reduce our dependence on coal;

(b) the commitment to reduce the 'carbon intensity' of our energy systems;

(c) the desirability of improving 'security of supply' by developing indigenous resources; and

(d) the immediate need to expand our national capacity to generate electricity.

5.2.1. Brief Historical Account of Oil and Gas Exploration and Development in South Africa

According to Maas 'indigenous oil production [in South Africa] was already receiving attention as far back as 1914, when EHC Craig published his report on "Petroleum Proposals in the Union of South Africa". This was followed in 1923 by a more authoritative report by TC Trevor, who focused the attention on turbinate'.[1351] However, despite all these reports and other government efforts, crude oil still had to be imported in large quantities at that stage.[1352]

[1350] See the *Department of Mineral Resources' Report on Investigation of Hydraulic Fracturing in the Karoo Basin of South Africa* available at *www.dmr.gov.za/...report...hydraulic-fracturing/...report-on-investig* (accessed 20 September 2012) at page 25. It is important to note that as the Department of Minerals and Energy (DME) was split into two department, namely the Department of Mineral Resources (DMR) and the Department of Energy Resources (DER), on 01 July 2009 by Proclamation No.44, 2009. The state President of the Republic of South Africa transferred the administration and the powers and functions entrusted to the Minister of Minerals and Energy by the Act including all amendments thereto, to the Minister of Mineral Resources. Reference to the Department of Minerals and Energy and the Department of Mineral Resources in this chapter are used interchangeably and should be understood in this context.

[1351] See Maas n 1341 *supra* at 47.

[1352] *Ibid*.

Maas indicates that although local exploration for crude oil started as early as 1888 in the Boshof and Potchefstroom districts, the first fairly extensive oil exploration program was commenced by the Geological Survey of South Africa in 1940.[1353] This fact is confirmed by PASA.[1354] In the 1960s and 1970s initial petroleum exploration took place in the Karoo Basin.[1355] The interest was therefore initially only centered onshore. Although several natural gas finds were made onshore, such as the Evander find, no substantial commercial discovery of oil or gas was made at that stage.[1356] As a result, the focus of exploration activities shifted offshore in the continental shelf, due to the perceived low potential for large conventional oil onshore.[1357]

In 1965 Soekor, a wholly-owned state corporation was established in order to explore and exploit natural gas for itself, on behalf of the state, or on behalf of any other person. A Prospecting Lease (No. OP26) was granted to Soekor whereby the government, through Soekor, undertook to prospect for natural oil and gas which resulted in the discovery of the F-A/E gas fields developed by Mossgas.[1358] The E-BT cluster of oil fields is presently being developed by a wholly-owned subsidiary of Soekor. Soekor currently holds prospecting rights on most of South Africa's offshore area.

In 1967 a Mining Rights Act[1359] was passed. Under this Act offshore concessions were granted to a number of IOCs including Total, Gulf Oil, Esso, Shell, ARCO, CFP and Superior.[1360] This led to the first well being drilled in 1969 and gas being discovered by

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[1353] See Maas n 1341 *supra* at 48.

[1354] See *Petroleum Agency of South Africa* n 1337 *supra* at 8.

[1355] *Ibid*.

[1356] See Maas n 1341 s*upra* at 48.

[1357] *Ibid*. See also *Department of Mineral Resources' Report on Investigation of Hydraulic Fracturing in the Karoo Basin of South Africa* n 1358 *supra* at page 15.

[1358] See Maas n 1341 *supra* at 69.

[1359] Act No. 20 of 1967.

[1360] See *Petroleum Agency of South Africa* n 1337 *supra* at 8. See also Maas n 1337 *supra* at 48.

the Superior Group in the Pletmos Basin.[1361] In 1973 Soekor drilled its first offshore well[1362] and by the end of 1980, several wells showed the presence of oil and gas.[1363] Their efforts resulted in their major first find in the Bredasdorp Basin, in the gasfield which is known as the F-A[1364] and E-M[1365] areas,[1366] with an estimated economic life of 29 years.[1367]

However, the global success of recent technological developments in recovering petroleum from low permeability reservoirs, together with the emergence of natural gas as an economically viable fossil fuel, has led to renewed interest in the petroleum potential of the Karoo basin as an important exploration target in South Africa.

5.2.2. The Current Exploration Climate

As indicated earlier, the primary energy resources in South Africa are firstly coal, followed by uranium, and then to a limited extent, by natural gas and hydroelectricity.[1368] The country relies heavily on imports as far as crude oil and natural gas is concerned. In 2003 only approximately 5 per cent of crude oil was supplied domestically while the remainder was imported.[1369] The electricity crisis in 2008, in particular, renewed the

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[1361] See *Petroleum Agency of South Africa* n 1337 *supra* at 8.

[1362] Ironically, this coincided with the oil crises of 1973. See *The South African Yearbook* n 1337 *supra* at 34.

[1363] See Maas n 1341 *supra* at 48.

[1364] Discovered in December 1980, the F-A area lies about 85 km south of Mosselbay and 64 km to the shore. See Maas n 1341 *supra* at 207.

[1365] The gas field in the E-M area 47 km to the west of the F-A area, was discovered in January 1983 and was to be phased into the overall development after a period of 17 years. See Maas n 1341 *supra* at 207-208.

[1366] See Maas n 1341 *supra* at 48.

[1367] See Maas n 1341 *supra* at 208.

[1368] See Maas n 1341 *supra* at 58.

[1369] See the *Integrated Energy Plan for the Republic of South Africa* n 1341 *supra* at 21.

need for diversification of energy resources; the escalating petroleum exploration activities in neighbouring countries, and some small exploration discoveries in South Africa further renewed South Africa's commitment to the development of an upstream industry. According to South Africa's *Integrated Energy Plan* 'increasing the oil and gas reserves/resource base will increase security of supply and contribute to foreign exchange savings. Therefore the current oil and gas exploration measures should be expanded'.[1370]

The *BBC* reported in July 2012 that in a single day in March 2012, no less than three East African states (Tanzania, Kenya, and Mozambique) announced the discovery of oil and gas.[1371] For instance, according to this report, Italy's biggest oil group, Eni,[1372] 'revealed a new gas discovery off the coast of Mozambique that took its deposits in the giant Mamba complex from 0.8 trillion to 1.1 trillion cubic meters'.[1373] It is believed that the combined deposits found by Anadarko and Eni in Mozambique could contain up to 1.7 trillion cubic meters of gas, an amount equivalent to the gas reserves in Kuwait.[1374] It is also reported that Kenya's former president, Mwai Kibaki, announced that 'oil had been struck in the East African Rift System in the northern country of Turkana'.[1375] Although on a lesser scale, Tanzania is also reported to have made some oil discoveries which have 'brought the proven reserves close to the minimum threshold'.[1376] As far as

[1370] See the *Integrated Energy Plan for the Republic of South Africa* n 1341 *supra* at 26.

[1371] See *BBC Focus on Africa* 'Oil and Gas: East Africa Rising?' July – September 2012 at 10. See also *City Press* 30 September 2012 'Race on for East Africa's Reserves'.

[1372] Some also refer to it as 'Africa's Italian Stallion' as it takes 30 percent of its crude oil from Africa. Although it is not one of Africa's 'big five' it is regarded as one of the 'super-independents' in Africa. See Clarke n 1307 *supra* at 425.

[1373] See *BBC Focus on Africa* n 1379 *supra*.

[1374] *Ibid*.

[1375] *Ibid.*

[1376] See *BBC Focus on Africa* n 1379 *supra* at 11.

gas is concerned Tanzania already generates half of its electricity from gas.[1377] The *BBC Focus on Africa Report* predicts that the recent gas discoveries in Tanzania and Mozambique could make East Africa the third largest exporter of natural gas in the world. According to this report, 'it [East Africa] could have some 28 billion barrels of oil, 12 trillion cubic metres of natural gas and 14 billion barrels of natural gas liquids'.

The discoveries already made in East Africa, and in particular in Mozambique which is South Africa's neighbour gives South Africa renewed hope that exploration in South Africa is not a fruitless exercise. As Viljoen and others indicate, 'the Zululand Basin, with its onshore extension, forms the southernmost part of the much bigger Mozambique Basin that contains the large Pande and Temane gas fields in Mozambique'.[1378] However, the hydrocarbon potential of the Durban Basin has been tested thus far by only four wells.[1379]

As the South African Oil and Gas Alliance (SAOGA) notes,

> South Africa remains a largely unexplored region in which there have been only modest, mainly gas, discoveries to date. Nevertheless, current upstream interest is high and we anticipate a significant increase in the amount of upstream activity over the next few years.[1380]

[1377] See *City Press* n 1379 *supra*.

[1378] See Viljoen JHA *et al* 'Technical Report on The Geological Storage of Carbon Dioxide in South Africa' Council for Geosciences 2010 at page 66, available at http://www.sacccs.org.za/wp-content/uploads/2011/02/CO2%20Technical%20Report%20on%20the%20geological%20storage%20of%20carbon%20dioxide%20in%20South%20Africa.pdf (accessed 20 August 2012) at 66. See also Clarke n 1307 *supra* at 82 and 435.

[1379] Viljoen *et al* n 1386 *supra*.

[1380] See http://www.saoga.org.za/content/overview-upstream-south-africa (accessed on 14 August 2012). South Africa is however, not an exception in this regard. The whole of the African

Raseroka and McLachlan correctly note that-

> [t]he present energy shortfall in South Africa is providing a new impetus to petroleum exploration. Already there are 26 current exploration rights (four of which are old order rights awaiting conversion under the new Minerals and Petroleum Resources Development Act of 1994 [it is actually Act 28 of 2002]) and 34 new applications (received on a first come, first served basis) are being processed. The main focus has been on natural gas. Long term player, Anglo Operations has been operating a five-spot pumping test in the Waterberg since 2004 and plans to start another shortly. In the main Karoo basin since the beginning of 2008, other exploration companies have drilled 20 exploration wells to test coal-bed methane potential. The pace of drilling is expected to pick up significantly before the end of the year.[1381]

It is therefore believed that a potential exists for offshore discoveries of both natural oil and gas in South Africa.[1382] Clarke is of the opinion that South Africa 'awaits a large oil discovery'.[1383] Maas also notes that 'there are quite a few gas fields [in addition to

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continent is relatively under-explored. As Ghazvinian observes, '… Africa is one of the world's last underexplored regions. In a world used to hearing there are no more big oil discoveries out there, and few truly untapped reserves to look forward to, the ferocious pace and scale of Africa's oil boom has proved a bracing tonic. One third of the world's new oil discoveries since the year 2000 have taken place in Africa. Of the 8 billion barrels of new reserves discovered in 2001, 7 billion were found there [in Africa]. In the years between 2005 and 2010, 20 percent of the world's new production capacity is expected to come from Africa. And there is now an almost contagious feeling that no one really knows how much oil might be there, since no one's ever bothered to check'. See Ghazvinian J *Untapped: the Scramble for Africa's Oil* (Harcourt 2007) 11-12.

[1381] See Raseroka & McLachlan n 1352 *supra* at 3.

[1382] See the *United States Geological Survey's (USGS) World Oil and Gas Assessment* 'Assessment of Undiscovered Oil and Gas Resources of the South Africa Coastal Province, Africa' available at http://pubs.usgs.gov/fs/2012/3030/contents/FS12-3030.pdf (accessed 20 August 2012).

[1383] See also Clarke n 1307 *supra* at 349.

Mossgas] awaiting exploitation and more is being done to explore new ones'.[1384] This potential for discovery is necessitated by 'a combination of [offshore] technological advances, high global [and local] demand and consistently elevated prices'.[1385] Clarke indicates that-

> …the future outlook of South Africa's upstream should be more positive than at any other time in its history for a number of reasons: the government is committed to developing petroleum resources and making investment in this industry more attractive; South Africa is underexplored with much virgin acreage; areas that have been explored show petroleum potential; a considerable market for oil exists; the potential for a gas market appears favourable; and political and commercial risks have diminished considerably.[1386]

Furthermore, Clark indicates that in South Africa,

> Large areas of virgin acreage exist still offshore, near 100 million acres, and no exploration has yet been undertaken in water deeper than 250 metres. Modern exploration techniques, such as 3-D, only recently applied, have covered a fraction of the offshore. Still, sizeable parts of the offshore have been signed up as a result of aggressive marketing by the independent licensing authority, the Petroleum Agency SA (PASA), but only a limited number of exploration drilling and seismic acquisition programmes are planned.[1387]

Offshore exploration has been, and still remains, the main focus of attention in South Africa.[1388] There is currently exploration in a number of offshore basins in both the west and east coasts of South Africa. In the west coast these include the Deepwater Orange basin off the West Coast of South Africa (the border between South Africa and Namibia), which covers a licensing area of 43 000 square kilometres; the Pletmos basin,

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[1384] See Mass n 1341 *supra* at 170.

[1385] See Ghazvinian n 1388 *supra* at 84.

[1386] See Clarke n 1307 *supra* at 351.

[1387] See Clarke n 1307 *supra* at 349.

[1388] See Clarke n 1307 *supra* at 349.

which is one of the 5 sub-basins situated in the Outeniqua basin[1389] off the south coast of South Africa and covers approximately 18000 square kilometres; and the Bredasdorp sub-basin, the western extent of which has significant hydrocarbon potential.[1390] In the east coast or eastern continental margin of South Africa, there is the Durban basin and the Zululand basin. Although the hydrocarbon potential of these basins exhibits promising exploration potential, it has been tested by only four wells.[1391] As Viljoen and others indicate, 'of all the offshore regions, the Durban and Zululand basins and the Transkei Swell have probably been the least explored and, consequently, their geology is the least understood'.[1392]

Onshore there is the main Karoo basin situated in the central region of South Africa.[1393] However, there is little petroleum resources of recoverable economic value in the main Karoo basin. As Viljoen and others indicate,

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[1389] The Outeniqua basin is bounded to the west by the Columbine-Agulhas Arch, to the east by the Port Alfred Arch and to the south by the Diaz Marginal Ridge. In addition to the Pletmos basin, the Outenegua basin includes the Gamtoos and the Algoa basins. See *Petroleum Agency SA* n 1337 *supra* at 5.

[1390] *Ibid*.

[1391] See *Petroleum Agency SA* 'Republic Of South Africa East Coast' available at http://www.petroleumagencysa.com/libraries/brochures/east_coast_basin.sflb.ashx (accessed 25 August 2012).

[1392] See Viljoen *et al* n 1386 *supra*.

[1393] As Viljoen *et al* indicate, 'the Main Karoo Basin is the largest sedimentary basin in South Africa, underlying approximately 60 percent of the land surface area of South Africa. It ranges in age from Late Carboniferous to Early Jurassic, attains a total cumulative thickness of ~12 km in the southern part of the Main Karoo Basin and covers an area of approximately 700 000 km2. Significant deposits are also present in the smaller Springbok Flats, Ellisras (Lephalale), Tshipise and Tuli basins to the north of the main basin'. See Viljoen *et al* n 1386 *supra* at 34. See also Bräuer B e*t al* 'Shallow Seismic Velocity Structure of the Karoo Basin, South Africa' 110 (2007) *South African Journal of Geology* 439; and Catuneanu O *et al* 'The Karoo Basins of South-Central Africa' 43 (2005) *Journal of African Earth Sciences* 211.

> although numerous occurrences of bitumen, petroleum, natural gas, oil shale and pseudo coal were reported in the basin, none are of any economic importance. A large number of oil exploration boreholes were drilled by SOEKOR in the Karoo Basin, but no economic deposits were found. Some small oil shows and gas were found at shallow depths in the north-eastern part of the Main Karoo Basin, but these occurrences are not economically viable, mainly because of the low permeability of the host sandstones in which they occur. It was also found that in some places where the porosity and permeability were sufficient, the presence of abundant cross-beds and undulating beds, covered with impervious clay layers, caused impermeable wedges. Almost 25 percent of all boreholes drilled in the northern part of the Karoo Basin contained varying amounts of gas [all references omitted].[1394]

PASA, the Petroleum Agency SA, tasked to regulate exploration and production activities, indicated that,

> following initial petroleum exploration in the Karoo Basin during the 1960s and 1970s, the focus of exploration activities eventually shifted offshore, due to the perceived low potential for large conventional oil plays onshore. However, the global success of recent technological developments (particularly reservoir fracturing and horizontal drilling) in recovering petroleum from low permeability reservoir, combined with the emergence of natural gas as an economically viable fossil fuel, has led to renewed interest in the petroleum potential of Karoo sediments, and the emergence of the Karoo Basin as an important exploration target in South Africa.[1395]

This hydrocarbon potential which is in the multi-billion barrel range, make further exploration of these blocks imperative. According to the PASA, 'exploration of South Africa's continental shelf has proven the existence of two working petroleum systems and oil and gas discoveries in the Deepwater Orange basin, off the West Coast of South

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[1394] See Viljoen *et al* n 1341 *supra* at 37.

[1395] See *Petroleum Agency SA* 'Republic of South Africa Petroleum Potential of the Karoo Basins' available http://www.petroleumagencysa.com/files/PetPotKaroo%20Basins3w.pdf (accessed 29 August 2012).

Africa'.[1396] In fact, an exploration right has been awarded to Shell South Africa Upstream B.V in the Orange basin offshore South Africa;[1397] and according to reports, a technical cooperation permit has been issued to Falcon Oil & Gas to evaluate the Karoo basin in central South Africa.[1398] According to reports the later, 'located about 120 miles northeast of Cape Town, South Africa, is gas from fractured shale and sandstone in Permian age rocks. Nine wells have been drilled in the area (late 60's and early 70's) and all have encountered gas shows. One of the wells, drilled in 1968, had an unstimulated flow rate of 1.84 million cubic feet of gas per day from fractures'.[1399] Furthermore, PASA has awarded Shell a technical cooperation permit for a one-year study to determine the hydrocarbon potential in parts of the Karoo basin in central South Africa.[1400] Anglo American as well is reported to have applied for a license to explore for shale gas in South Africa's arid Karoo.[1401]

[1396] See *Petroleum Agency SA* 'Exploration Opportunities in the Deepwater Orange Basin, off the West Coast of South Africa' available at http://www.petroleumagencysa.com/Libraries/Brochures/Deepwater_Orange_Basin.sflb.ashx (accessed 29 August 2012).

[1397] See a press release by Shell on 10 February 2012 available at http://www.shell.com/home/content/zaf/aboutshell/media_centre/news_and_media_releases/2012/orange_basin_license.html. See also *Energy News Update* available at http://energynewsupdate.wordpress.com (accessed 24 August 2012).

[1398] See *Energy Pedia News* October 27, 2009 'South Africa: Falcon Oil & Gas Secures Permit to Evaluate South African Properties' available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012).

[1399] *Ibid*.

[1400] See *Royal Dutch Shell Press Release* December 16, 2009 'Shell Awarded Permit to Study Natural Gas Potential in Central South Africa' available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012); *Oil & Gas Insight* December, 2009 'Shell Enters Karoo Shale Basin' available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012).

[1401] See Creamer M 'Now Anglo Applies to Explore for Shale Gas in Karoo – Petroleum Agency SA' *Mining Weekly* March 26, 2010 available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012); *Reuters* January 17, 2011 'Shell Plans Shale Gas

Furthermore,

> [t]he South Africa Coastal Province along the South African coast recently was assessed for undiscovered, technically recoverable oil, natural gas, and natural gas liquids resources as part of the U.S. Geological Survey's (USGS) World Oil and Gas Assessment. Using a geology-based assessment methodology, the USGS estimated mean volumes of 2.13 billion barrels of oil, 35.96 trillion cubic feet of natural gas, and 1,115 million barrels of natural gas liquids.[1402]

The successful exploitation of these natural resources would therefore contribute towards the growth of the country's economy. There are already few applications in the pipeline. Sasol Petroleum International, a subsidiary of JSE-listed Sasol,[1403] Statoil, of Norway,[1404] and Chesapeake Energy Corp, of the US, in a multinational gas exploration joint venture submitted an 'exploration right application' to PASA for an onshore shale-gas resource in the Karoo Basin, situated in the central region of South Africa.[1405] A

Search in Karoo' available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012).

[1402] See Michael E *et al* 'Assessment of Undiscovered Oil and Gas Resources of the South Africa Coastal Province, Africa' available at http://pubs.usgs.gov/fs/2012/3030/contents/FS12-3030.pdf (accessed 15 August 2012).

[1403] This player is not uniquely upstream but a high-growth diversified South African group with synfuels, GTL, downstream petrochemicals, and an upstream subsidiary in the form of SASOL Petroleum International (SPI). See Clarke n 1307 *supra* at 435.

[1404] Formally this is Norway's state oil company while it has private equity in its make-up. See Clarke n 1307 *supra* at 425.

[1405] See *Energy-Pedia News* November 25, 2009 'South Africa: Statoil and Sasol Apply for Shale Gas Exploration Rights' available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012); *Horn River News* November 27, 2009 'Chesapeake Explores for Shale Gas in South Africa' available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012); *Russell Gold Wall Street Journal WSJ Blog* November 30, 2009 'Shale Gas Exploration Goes International' available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012); Creamer M 'Sasol-Chesapeake-Statoil Apply to Explore for Shale Gas in Karoo' *Mining Weekly* March 19 2010 available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf

permit has subsequently been awarded to multinational gas exploration JV.[1406] This one year technical cooperation permit, which does not allow for any surface activity or drilling, covers an area of approximately 88 000 square kilometres, located primary in the Free State but also covers areas in the Eastern Cape and the KwaZulu-Natal provinces.[1407] Shell[1408] has also been granted exploration permits.[1409] Bundu Gas and Oil Exploration Ltd have also applied for shale gas exploration permits.[1410] SASOL Petroleum International has also been granted blocks 3A and 4A offshore South Africa on the west coast for gas exploration.[1411] Pioneer Natural Resources joined PetroSA to develop the Sable field, which was brought onstream in 2003, and achieved exploration success with the discovery of oil and gas.[1412] Ophir Energy has also acquired some

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(accessed 24 August 2012); *Petroleum Africa* July 20, 2010 'Sasol, Statoil, Chesapeake Team for Karoo Shale Gas Hunt' available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012).

[1406] See *South Africa.info* 21 July 2010 'Sasol Leads Karoo Shale Gas Mission' available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012).

[1407] *Ibid*.

[1408] Shell (the 'buffalo') is one of the so-called Africa's 'big five' animals. These include ExxonMobile (the 'elephantine-like player') holding 44 acres in nine African countries; BP (the 'lioness' predator) with major assets in Africa; Total (the 'leopard'); and Chevron (the 'rhino'). See Clarke n 1307 *supra* at 416-424.

[1409] See Hill M 'Shell Talks up SA Shale Gas Prospects' *Mining Weekly* September 13, 2010 available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012).

[1410] See Lorens C *Bloomberg* September 23, 2010 'South Africa Targets Shale Gas to Reduce Oil Imports' available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012).

[1411] See Clarke n 1307 *supra* at 435. This SASOL subsidiary is said to have a traditional exploration and development role in Africa, which is its main target focus, while in Mozambique its Pande/Temane gas fields provide gas by pipeline to the Gauteng province in South Africa, Mozambique and some new markets. See Clarke n 1307 *supra* at 436.

[1412] See Clarke n 1307 *supra* at 457.

significant offshore acreage in South Africa.[1413] As Clarke indicates, this 'new kid on the block [Ophir] holds the 10% back-in rights option on blocks 2A and 2C on the west coast of South Africa, containing Ibhubezi gas discoveries'.[1414]

South Africa currently imports the bulk of its gas resources from its neighbours, Mozambique and Namibia through cross-border gas trade agreements.[1415] Only limited natural gas reserves exist around the South African coast.[1416] PetroSA is involved in the exploitation of these resources off the coast of Mossel Bay.[1417] Some discoveries have already been made and it is reckoned that this 'could increase 4.5 times'.[1418] According to Maas-

> [t]hree out of 12 boreholes sunk since September 1989 could be classified as commercially viable and there was a strong presence of oil and gas in 3 more. The reserves are being determined at present. However, at the end of 1988 three more promising discoveries were announced. The discoveries were made about 120 km southwest of Mossel Bay, consisting of 3 wells. Further investigation indicated that one of the 3 wells did not yield as much hydrocarbons as anticipated earlier. The wells are less than 50 km from the E-M and F-A area, which will be used by Mossgas. A further discovery was made at Honderklip Bay, on the west coast…. It is believed that these discoveries are indicative of more gas or oil fields.[1419]

[1413] Ophir Energy was formed in 2004 by Dr Alan Steyn and colleagues Peter Dolan and Jonathan Taylor (joined later by ex-Woodside and ex-OMV executive Mike Fischer), with once majority shareholder Mvelaphanda Holdings (led by South African politician, businessman and bureaucrat and presidential hopeful, Tokyo Sexwale. Within three years of its launch, this company built a significant exploration and asset portfolio in Africa including the Gulf of Guinea, South Africa, Nigeria (with Anadarko), Gabon, Somaliland, and Tanzania. See Clarke n 1307 *supra* at 468.

[1414] See Clarke n 1307 *supra* at 469.

[1415] *Ibid*.

[1416] See *South Africa Yearbook* n 1339 *supra* at 192.

[1417] *Ibid*.

[1418] See Maas n 1341 *supra* at 188.

[1419] See Maas n 1341 *supra* at 102.

5.3. South Africa's Oil and Gas Exploration and Development Policy Framework

With the end of the apartheid regime in South Africa, the South African government, as part of its socio-economic transformation drive, adopted a new energy policy in December 2008. The adoption of broad government policy frameworks, such as the Reconstruction and Development Programme (RDP), necessitated a review of existing policies including energy policies. Given that government's white paper on energy policy was last adopted as far back as 1986, it was clearly high time that the sector's policies underwent a major re-evaluation. In the context of oil and gas, this energy policy seeks to ensure the optimal and environmentally sustainable exploration and development of the country's natural oil and gas resources to the benefit of all.[1420] To this end, the government undertakes to:

- maintain an appropriate capability to perform regulatory and promotional functions in respect of oil and gas exploration on behalf of the state;
- promote the development of South Africa's oil and gas resources by ensuring that the tax regime and contractual arrangements as well as the regulatory and operating environment will be consistent with, stable and internationally competitive;
- ensure private sector investment and expertise in the exploitation and development of the country's oil and gas resources;
- promote research, technology development, and technology transfer to stimulate the optimal development of the country's oil and gas resources;
- promote oil and gas development by applying the 'use-it or keep-it' principle in contracts according to standard international practice;
- retain the rights to natural oil and gas offshore;
- work towards government's long term objective of all onshore mineral rights vesting in the state;
- ensure a safe and healthy working environment in accordance with the Mine Health and Safety Act,[1421] and good international oil and gas field practice;

[1420] See *Energy Pedia* n 1406 *supra*.

[1421] Act No. 29 of 1996.

- ensure that an integrated and holistic environment management on all oil and gas exploration and production operations is achieved in accordance with international oil and gas field practice;
- ensure that the 'polluter pays' principle is applied in the regulation and enforcement of environmental impact assessment measures and standards; and
- promote international co-operation with an emphasis on Southern Africa.[1422]

This policy envisaged the introduction of a dedicated oil and gas legislation to govern the exploration and exploitation of oil and gas rights.

5.4. The Legislative Framework

In South Africa, both oil and gas exploration and production (i.e. the upstream industry) and mining and prospecting for minerals are governed by the MPRDA.[1423] The MPRDA is the principal Act regulating the exploration for and production of petroleum resources in South Africa. The Act, which repealed the Minerals Act,[1424] is guided by the *White Paper on Minerals and Energy for South Africa* (1998).[1425] As indicated later in this chapter, the MPRDA has effectively abolished the common law maxim of *cuius est solum, eius est a coelo usque ad inferos*. Section 3 of the MPRDA essentially transferred ownership of the mineral resources to all the people of South Africa with the state acting as the custodian thereof. This, in effect, is a reflection of the mining provision of the Freedom Charter, which provided that 'the mineral wealth beneath the soil, the banks and monopoly industry shall be transferred to the ownership of the people as a whole'.[1426]

[1422] See *White Paper on the Energy Policy of the Republic of South Africa* n 1349 *supra* at 55-56.

[1423] See the MPRDA n 37 *supra*.

[1424] Act No. 50 of 1991, repealed by the MPRDA.

[1425] See n 1349 *supra*.

[1426] The Freedom Charter is the statement of core principles of the South African Congress Alliance, which consisted of the African National Congress and its allies, the South African

Similar to the mining industry, the upstream oil and gas industry has gone through a complex process of transition from the previous regime (governed under the now repealed Minerals Act, which preserved certain provisions[1427] of the otherwise repealed Mining Rights Act[1428]) to exploration, production, and other rights in respect of petroleum, for which the MPRDA provides. The previous regime is referred to as the 'OP26' regime,[1429] so called for the number under which the foundational 1967 lease to prospect for petroleum (then defined as natural oil) in the Republic was registered in the Mining Titles Office.[1430]

A significant feature of the OP26 regime was that it guaranteed fiscal stability to oil and gas exploration companies, recognising the need for certainty in such a long-term, capital intensive and risky activity.

5.4.1. The 1996 Constitution of South Africa

As indicated earlier, the Constitution of the Republic of South Africa, 1996, does not expressly provide for state sovereignty or ownership of natural resources. All it provides

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Indian Congress, the South African Congress of Democrats and the Coloured People's Congress. It is characterised by its opening demand that 'The People Shall Govern!'. See the Freedom Charter at www.anc.org.za/show.php?id=72 (accessed 21 May 2013).

[1427] See ss 47(1)(a)(iv) and 47(1)(g) of the Minerals Act No. 50 of 1991 which preserves ss 2(1)(b), 25, 42, 48, 56 of the Mining Rights Act No. 20 of 1967.

[1428] Act No. 20 of 1967.

[1429] See A Report of Task Team appointed by the Minister of Finance in May 2006 to consider possible reforms to the fiscal regime applicable to windfall profits in South Africa's liquid fuel energy sector, titled 'Possible Reforms to the Fiscal Regime Applicable to Windfall Profits in South Africa's Liquid Fuel Energy Sector, with particular reference to the Synthetic Fuel Industry' at p 34, available at http://www.treasury.gov.za/publications/other/windfall/Liquid%20Fuel%20Windfall%20Profits%20Final%20Report%20-%20%209%20February%202007.pdf (accessed 20 September 2012).

[1430] *Ibid*.

for is the right, 'to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that secures ecologically sustainable development and use of the country's natural resources while promoting justifiable economic and social development'.[1431] This is provided for within the context of the right to environment in section 24 of the Constitution.

It is submitted the silence of the Constitution on this important issue is not beneficial. Ownership and state sovereignty of natural resources is an important constitutional issue that should have been determined clearly. This is particularly so because the Constitution of South Africa is supreme,[1432] which means that any law or conduct inconsistent with it is unconstitutional. Some might be argued, albeit cynically, that by providing for state sovereignty and custodianship of the nation's petroleum resources, the MPRDA is contrary to, much broader than, and thus *ultra vires* the Constitution. However, the Constitution clearly does not prohibit state ownership of all hydrocarbons. Neither does it prohibit the recognition of state sovereignty over such natural resources. Thus in the author's view, constitutional supremacy[1433] is not offended by the legislative choices made in the MPRDA.

Although the non-recognition of state sovereignty does not contradict constitutional supremacy in South Africa, state sovereignty over natural resources is an internationally recognised right[1434] and South Africa should therefore have simply recognised that right in its Constitution.

5.4.2. The MPRDA

[1431] See n 11 *supra*.

[1432] See s 2 of the Constitution.

[1433] See s 2 of the Constitution of South Africa, 1996.

[1434] See 2.3 in chapter 2 above. See also Hofbauer n 182 *supra* at 63; Perrez n 187 *supra* at 1207; Viellevile & Vasani n 188 *supra* at 814.

The MPRDA came into operation on the 1st of May 2004. This Act has as it objects, inter alia, the following:

- the recognition of the internationally accepted right of the state to exercise sovereignty over all petroleum resources within South Africa;
- giving effect to the state's custodianship of the nation's petroleum resources;
- the promotion of equitable access to the nation's petroleum resources to all the people of South Africa;
- substantial and meaningful expansion of opportunities for historically disadvantaged persons, including women, to enter the petroleum industry and to benefit from the exploitation of the petroleum resources;
- the promotion of economic growth and petroleum resources development in South Africa;
- the promotion of employment and advancement of the social and economic wellbeing of all South Africans;
- provision of security of tenure in respect of exploration and production operations;
- ensuring that the nation's petroleum resources are developed in an orderly and ecologically sustainable manner while promoting justifiable social and economic development; and
- ensuring that holders of production rights contribute towards the socio-economic development of the areas in which they are operating.[1435]

5.4.2.1. Rights and Permits under the MPRDA

Chapter 6 of the MPRDA regulates the exploration, development and production of petroleum resources. It makes provision for two permits, namely a reconnaissance permit and a technical co-operation permit. It also makes provision for two rights, namely an exploration right and a production right.

[1435] See s 2 of the MPRDA.

5.4.2.1.1. Reconnaissance Permit

A reconnaissance permit is a permit issued to the applicant in terms of section 75(1) of the MPRDA to carry out any operation for or in connection with, the search for a mineral or petroleum by geological, geophysical and photo geological surveys, and includes any remote sensing techniques, but does not include any prospecting or exploration operation. The holder of a reconnaissance permit must actively conduct reconnaissance operations in accordance with an approved reconnaissance programme.[1436] It is valid for a maximum non-renewable[1437] period of one year.[1438] It is non-exclusive[1439] and non-transferable.[1440]

5.4.2.1.2. Technical Co-operation Permit

A technical co-operation permit is a permit issued to an applicant in terms of section 77(1) of the MPRDA, which entitles the holder to a non-exclusive right[1441] to conduct desktop study, acquire seismic data from other sources including the government's designated agency, PASA, but does not include any prospecting or exploration activity. Subject to section 79 of the MPRDA, it entitles the holder to an exclusive right to apply for and be granted an exploration right.[1442] Holders of a technical co-operation permit must actively carry-out the technical cooperation study in accordance with an approved

[1436] Section 75(5)(a) of the MPRDA.

[1437] Section 75(4)(e) of the MPRDA.

[1438] Section 75(4)(b) of the MPRDA.

[1439] See s 75(4)(c) of the MPRDA.

[1440] See s 75(4)(d) of the MPRDA.

[1441] Section 75(4)(c) of the MPRDA.

[1442] Section 78(1) of the MPRDA.

technical co-operation programme.[1443] It is valid for a maximum period of one year;[1444] it is not transferable;[1445] and not renewable.[1446]

5.4.2.1.3. Exploration Right

An exploration right is a right granted to the applicant in terms of section 80 of MPRDA to re-process the existing seismic data, acquisition and processing of new seismic data or any other related activity to define a trap to be tested by the drilling, logging and testing, including the extended well-testing, of a well with the intention of locating a discovery. Subject to the provisions of sections 5 and 83 of the MPRDA, read together with Regulation 34, the holder of an exploration right has the exclusive right to apply for and be granted a production right in respect of each commercial discovery within the exploration area; provided that any such application for a production right has been lodged prior to the expiry date of the relevant exploration right.[1447] The holder of an exploration right must continuously and actively conduct exploration operations in accordance with an approved exploration programme.[1448] An exploration right is valid for maximum period of three years;[1449] and is renewable for a maximum of three periods not exceeding two years each.[1450]

5.4.2.1.4. Production Right

A production right is a right granted to an applicant in terms of section 84 of the MPRDA in terms of which such an applicant is entitled to conduct any operation, activity or

[1443] Section 78(2)(a) of the MPRDA.

[1444] Section 77(4)(b) of the MPRDA.

[1445] Section 77(4)(c) of the MPRDA.

[1446] Section 77(4)(d) of the MPRDA.

[1447] See s 82(1)(a) of the MPRDA.

[1448] Section 82(2)(b) of the MPRDA.

[1449] Section 80(5) of the MPRDA.

[1450] Section 81(5) of the MPRDA.

matter that relates to the exploration, appraisal, development and production of petroleum. It is granted pursuant to an application lodged, in the prescribed manner, together with a non-refundable application fee, to PASA.[1451] PASA has no discretion but an obligation to accept an application for a production right. It must accept the application if it complies with the requirements of section 83(1) of the MPRDA,[1452] namely if it is lodged with PASA in the prescribed manner and a non-refundable application fee is paid;[1453] and no other person holds a technical cooperation permit, exploration right, or production right to petroleum over any part of the area applied for. An application for a production right is therefore accepted not only on the basis of compliance with the stipulated requirements, but also on the basis of 'first-come, first-served' principle.

A production right entitles the holder to an exclusive right to remove and dispose of any petroleum found during the course of production.[1454] The holder of this right must continuously, actively and diligently conduct production operations in accordance with an approved production work program;[1455] comply with the prescribed social and labour plan;[1456] and comply with the environmental management programme.[1457] A production right is valid for a maximum period of 30 years,[1458] and is renewable for further periods each with a maximum of 30 years.[1459] A production right may be cancelled or suspended by the Minister of Mineral Resources in terms of section 90 of the MPRDA, in the circumstances set out in, and in accordance with the provisions of section 47 of the MPRDA. These circumstances include: conducting production operations in

[1451] See s 83(1) of the MPRDA.

[1452] See s 83(2)(a) of the MPRDA.

[1453] See s 83(1) of the MPRDA.

[1454] Section 86(1) of the MPRDA.

[1455] See s 86(2)(b) of the MPRDA.

[1456] See s 86(2)(d) of the MPRDA.

[1457] See s 86(2)(d) of the MPRDA.

[1458] Section 84(4) of the MPRDA.

[1459] Section 85(4) of the MPRDA.

contravention of the MPRDA;[1460] breaching any material term or condition of a production right;[1461] contravening the approved environmental management programme;[1462] and submitting any inaccurate, incorrect or misleading information in connection with any matter required to be submitted in terms of the MPRDA.[1463]

5.4.2.2. The Method and Criteria for Awarding Licenses

There are two main methods of awarding licenses under the MPRDA. Firstly exploration and production licenses may be awarded to applicants after an invitation for application has been placed by the Minister of Mineral Resources in a notice in the *Government Gazette*, specifying the block or blocks, the period within which applications may be lodged with the designated agency (PASA),[1464] and the terms and conditions subject to which such licenses may be granted.[1465] Secondly, applicants can directly lodge applications for exploration and production rights in respect of blocks which are not subject to the Minister's invitation.[1466]

The criteria for awarding licences in terms of the MPRDA is arguably the most comprehensive, transparent, objective, and liberal compared to both the Nigerian and Angolan criteria. The criteria for awarding petroleum exploitation licenses include the following:

[1460] See s 47(1)(a) of the MPRDA.

[1461] See s 47(1)(b) of the MPRDA.

[1462] See s 47(1)(c) of the MPRDA.

[1463] See s 47(1)(d) of the MPRDA.

[1464] PASA must within 7 calendar days (reckoned be excluding the first and including the last day) of receiving such an application inform the Minister of such receipt. See s 73(3) read together with the definition of day in s 1 of the MPRDA.

[1465] See s 73(1) of the MPRDA.

[1466] See s 73(2) of the MPRDA.

(a) access to financial resources;[1467]

(b) technical ability to conduct the proposed reconnaissance survey, technical cooperation study, exploration operation, or production operation in accordance with the reconnaissance, technical co-operation, exploration, or production operation, as the case may be;[1468]

(c) the compatibility of estimate expenditure with the intended reconnaissance, technical co-operation, exploration, or production operation and the duration of the relevant reconnaissance, technical co-operation, exploration, and production work programme, as the case may be;[1469]

(d) ensuring that the reconnaissance or production operation will not result in unacceptable of pollution, ecological degradation or damage to the environment;[1470] or an approval of an environmental management programme for an exploration right;[1471]

(e) the applicant's ability to comply with relevant provisions of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996);[1472]

(f) compliance with all provisions of the MPRDA;[1473]

(g) compliance with the terms and conditions of a technical co-operation permit if applicable, in the case of an exploration right; and those of an exploration right, if applicable, in the case of a production right;[1474]

(h) in the case of an exploration right and a production right, the potential ability of the applicant to substantially and meaningfully expand opportunities for HDSAs, including women, to enter the petroleum industry and benefit from the exploitation

[1467] See ss 75(1)(a), 77(1)(a), 80(1)(a), and 84(1)(a) of the MPRDA.

[1468] See ss 75(1)(a), 77(1)(a), 80(1)(a), and 84(1)(a) of the MPRDA.

[1469] See ss 75(1)(b), 77(1)(b), 80(1)(b), and 84(1)(b) of the MPRDA.

[1470] See ss 75(1)(c) of the MPRDA and 84(1)(c) of the MPRDA.

[1471] Section 80(1)(c) of the MPRDA.

[1472] See ss 75(1)(d), 80(1)(d), and 84(1)(d) of the MPRDA.

[1473] See ss 75(1(e), 77(1)(e), 80(1)(e), and 84(1)(e) of the MPRDA.

[1474] See ss 80(1)(f) and 84(1)(f) of the MPRDA.

of the nation's petroleum resources; and to promote employment and advance the social and economic welfare of all South Africans; [1475] and

(i) in the case of a production right, the potential ability of the applicant to further the objects of the Charter contemplated in section 100 of the MPRDA; and the prescribed social and labour plan.[1476]

5.4.2.3. Critical Appraisal of the Licencing Criteria

With regard to the decision whether to grant or refuse an application, the discretionary powers are limited to the acceptability of the information on hand at the time of the decision. The textual language used is peremptory rather than discretionary. The Minister must[1477] grant these rights if the applicant meets the criteria prescribed by law. It is clear from the criteria outlined above that important considerations include the technical ability, financial resources, safety, health and environment, willingness and potential ability to advance HDSAs, and compliance with the law and the Mining Charter. These criteria are transparent,[1478] comprehensive, non-discretionary, objective,[1479] and liberal. As Girones and other indicate, 'avoiding discretionary decision making can be achieved by predetermining the legal and regulatory framework and the standardized conditions for the granting of mineral licenses (duration, size, geometry, fees, conditions for renewal, and so on)'.[1480] Sunnevag also indicates licences are awarded on the basis of 'objective, non-discriminatory and published criteria, i.e. an assessment of technological and financial capabilities.[1481] Mutemeri and others also indicate that the

[1475] See ss 80(1)(g) and 84(1)(i) read together with ss 2(d) and (f) of the MPRDA.

[1476] See s 84(1)(i) of the MPRDA.

[1477] See ss 75(1), 77(1), 80(1), and 84(1) of the MPRDA.

[1478] Girones EO *et al Mining Rights Cadastra: Promoting Transparent Access to Mineral Resources* World Bank Extractive Industries for Development Series No. 4 of June 2009 at p 14.

[1479] Girones n 1478 *supra* at 15.

[1480] Girones n 1478 *supra* at 16.

[1481] See Sunnevag KJ 'Designing Auctions for Offshore Petroleum Lease Allocation' 26 (2000) *Resources Policy* 3 at 5.

'acceptance and granting mineral rights must be dependent on explicit, simplified and detailed requirements and procedures. These criteria should amongst other things include technical and financial ability, environmental management and protection, health and safety'.[1482] Dale also submits that-

> the most important criteria…in regard to administrative decisions whether to grant, renew or cancel rights is… the degree to which administrative decision is circumscribed by reference to stipulated objective criteria. In so far as applications … are concerned, the Act [the MPRDA] provides for compulsory grant or compulsory refusal by reference to stipulated criteria. Some of these criteria are the normal objective ones relating to financial and technical resources and ability, optimality, work programs, environmental, health and safety considerations, and non-contravention of relevant provisions of the Act [the MPRDA].[1483]

Work programs are very important in awarding licenses or allocating acreage. Uniquely, environmental, health and safety, and socio-economic factors such as black economic empowerment, are important considerations in the process of awarding licenses.

The 'first-come, first served'[1484] or FIFA approach to the granting of rights also promotes transparency and fairness as all applicants are aware of the order in which applications are considered. As Girones and other indicate, in order to guarantee the transparency of a natural resources allocation system, the procedures in the legal and regulatory framework should include 'explicit, simplified, and detailed requirements and procedures for obtaining, maintaining, and terminating mineral rights. Any holder, applicant, or interested individual or corporation must be able to access detailed information about the requirements and conditions of applying for mineral rights—and the validity of

[1482] Mutemeri N *et al*.*Granting Mineral Rights: A Good Practice Note* World Bank Project – Extractive Industries Source Book Program. Washington, DC: World Bank, 2010 at p 5.

[1483] See Dale n 1323 *supra* at 833.

[1484] In the USA there is a mix of competitive auctions and first-come, first-served systems. See Sunnevag n 1489 *supra* at 4.

granted licenses. In this respect, it is extremely important to predefine eligibility conditions without ambiguity and based on simple and objective criteria'.[1485]

5.4.2.4. The Legal Nature of an Exploration Right and a Production Right

In terms of section 5(1) of the MPRDA an exploration right or production right granted in terms of the MPRDA is a limited real right in respect of the petroleum and land to which such right relates. The holder of these rights is entitled to rights as may be granted to, acquired, by or conferred upon such holder under the MPRDA or any other law, including the right to-

(a) enter the land to which the right relates together with his employees, and to bring onto that land any plant, machinery or equipment and build, construct or lay down any surface, underground or under sea infrastructure which may be required for the purpose of exploration or production, as the case may be;[1486]

(b) explore for or produce, as the case may be, for his or her own account on or under that land the petroleum for which such right has been granted;[1487]

(c) remove and dispose of any such petroleum found during the course of exploration or production, as the case may be;[1488]

(d) subject to the National Water Act, 1998 (Act No 36 of 1998), use water from any natural spring, lake, river or stream, situated on, or flowing through, such land or from any excavation previously made and used for exploration or production purposes, or sink a well or borehole required for use relating to exploration or production on such land;[1489] and

[1485].See Girones *et al* n 1486 *supra* at 16.

[1486] See s 5(3)(a) of the MPRDA.

[1487] See s 5(3)(b) of the MPRDA.

[1488] See s 5(3)(c) of the MPRDA.

[1489] See s 5(3)(d) of the MPRDA.

(e) carry out any activity incidental to exploration or production operations, which activity does not contravene the provisions of the MPRDA.[1490]

Dale submits that this is preferable to the provision merely of permits and licences, which are found in administrative law, whereas the reference to rights adds a proprietary and possibly contractual overlay to what would otherwise be a purely administrative instrument.[1491] He concedes, however, that the rights are granted administratively and that the grant of these rights does not confer ownership of the resources *in situ* to the holder of the right, but could confer suspensive ownership, that is ownership passes suspensively on the mining or production actually taking place.[1492]

However, Wallis JA in *Agri SA II* is of the view that minerals (and petroleum) in South Africa are incorrectly referred to as common law property rights, while in actual effect they have historically always been, and still are, statutory rights.[1493] Dismissing Agri SA's contention that all mineral rights in existence under the Minerals Act of 1991 at the time the MPRDA came into operation were expropriated under that Act, the Supreme Court of Appeal (SCA) held that,

> Agri SA's argument is based upon the hypothesis that mineral rights were common law rights and that extensive common law rights were taken away and replaced by lesser statutory rights in the gift of the Minister. This was the approach adopted by the trial court, no doubt because it was the approach adopted by counsel. However, as I have endeavoured to show, that is an incorrect characterisation of the right to mine that lies at the heart of the debate. A convenient shorthand terminology, useful in the sphere of the type of disputes that our courts had over the years to deal with in cases involving mining

[1490] See s 5(3)(e) of the MPRDA.

[1491] See Dale n 1323 *supra* at 828.

[1492] *Ibid*.

[1493] See *Minister of Minerals and Energy v Agri SA (CALS amicus curiae)* (458/11) [2012] ZASCA 93 (31 May 2012) (hereinafter '*Agri SA II*') para 25-85, in which he traces the historical evolution of mineral rights by exploring how the entire structure of mineral and mining law had evolved in South Africa both by the Courts and various legislatures.

and minerals, has been erroneously construed as identifying the source of mineral rights. It is on that basis that it is said that the right to mine flows from the common law and has been expropriated.[1494]

Eventually the SCA held that

> …the MPRDA is merely the latest in a long line of legislation and statutory instruments in South Africa that affirms the principle that the right to mine is controlled by the State, and allocated to those who wish to exercise it. The right to mine remains, as it has always been, ever since mining became an important part of the economy of South Africa, under the control of and vested in the State, which allocates it in accordance with current policy. That being so the first requirement of an expropriation, namely that there be a deprivation of property, is not established insofar as the right to mine is concerned. That right was never vested in the holders of mineral rights, but was vested in the State and allocated to those holders in accordance with the legislation applicable to it from time to time. It could not therefore be expropriated although rights flowing from the State's allocation of the right to mine could.[1495]

Thus the court effectively held that the 'right to mine', as opposed to its allocation, is not a regulatory matter, 'but a matter of the substantive powers of the state in contrast to private law rights to property'.[1496] The reasoning was that as 'mineral rights' are derived from 'the right to mine', which statutorily vests in the state, which has substantive powers as a regulator, the existence of separate and independent mineral rights in private hands was always an illusion.

It is submitted that in essence therefore the nature of the rights is a mixed or hybrid. As will be shown in the next part (5.4.2.5), the rights are neither purely proprietary and thus contractual, nor are they purely regulatory, and thus administrative entitlements.

5.4.2.5. Critical Appraisal of the Legal Nature of Licenses

[1494] See *Agri SA II* n 1501 *supra* at para 82.

[1495] See *Agri SA II* n 1501 *supra* at para 85.

[1496] See *Agri SA II* n 1501 *supra* at para 99.

It is clear from the discussion above that South Africa has adopted a concessionary system for the allocation of petroleum acreage rather than a contractual system. As Tordo and others indicate, a concession grants an exclusive license to a qualified investor.[1497] The licences discussed above are modern concessions.[1498] Tordo and others correctly notes that-

> [t]he provisions of modern concession agreements are much different from the original model. In addition to reducing the area coverage and the duration of the agreement, modern concessions also contain relinquishment clauses and express obligations to enter into a work program.[1499]

However, currently the MPRDA does not make provision for relinquishment in any of its sections.

As Tordo and others explain,

> a concession grants an oil company (or a consortium) the exclusive right to explore for and produce hydrocarbons within a specific area (called the *license area, block,* or *tract,* depending on local laws) for a given time. The company assumes all risks and costs associated with the exploration, development, and production of petroleum in the area covered by concession. Often a license fee or bonus is paid to the government. The government's compensation for the use of the resource by the investor will typically include royalty and tax payments if hydrocarbons are produced.[1500]

[1497] See Tordo S *et al* 'Countries' Experience with the Allocation of Petroleum Exploration and Production Rights: Strategies and Design Issues' *World Bank Working Paper- Draft, 2009* at 9.

[1498] This differs from historical or traditional concessions. As Tordo *et al* note 'historically, mineral rights were granted by concession. The original concession (i) granted rights to petroleum development over a vast area; (ii) had a relatively long duration; (iii) granted extensive control over the schedule and manner in which petroleum reserves were developed to the investor; and (iv) reserved few rights for the sovereign, except the right to receive a payment based on production'. See Tordo *et al* n 1505 *supra*.

[1499] See Tordo *et al* n 1505 *supra*.

[1500] *Ibid*.

The legal nature of the licenses in South Africa is therefore essentially concessionary rather than contractual. As Dale correctly indicates, the Act (the MPRDA) does not allow for the negotiation of individual mineral (and petroleum) or stabilisation agreements.[1501] The granting of these rights is characterised by an administrative process[1502] which entails a state organ granting or issuing a licence or permit to an applicant after the later has submitted an application in a prescribed manner. The state organ exercises a public power or performs a public function by issuing the license or permit provided that the applicant meets predetermined statutory requirements. The state organ also subjects the licence or permit to some terms and conditions in accordance with the law. This is therefore an administrative decision-making process based on payment of predetermined fees rather than a competitive bidding or auction process based on the payment of the highest signature bonuses. The MPRDA therefore does provide for an administrative process which entails that decisions must be taken within a reasonable time and in accordance with the principles of lawfulness, reasonableness and procedural fairness; and those decisions must be in writing and be accompanied by written reasons.[1503] The system is one of administrative law where a state organ makes a decision based on predetermined criteria rather than a contractual arrangement between the state and IOCs.

5.5. Fiscal Framework

As shown above (in 5.4.2.5), South Africa has adopted a concessionary rather than a contractual system for oil and gas regulation. Features of this concessionary system include the imposition of taxes and royalties. This system is complemented by a statutory or the so-called 'fixed-term' system. Key components of the current fiscal regime are a royalty, normal company tax (corporate tax), a BEE requirement – BEE

[1501] See Dale n 1323 *supra* at 829.

[1502] See also Dale n 1323 *supra* at 828.

[1503] See Dale n 1323 *supra* at 832. See also generally the Promotion of Administrative Justice Act 3 of 2000.

firms to be offered a 10 per cent farm-in option, and a 10 per cent farm-in right for state-owned national oil company, PetroSA.[1504]

In South Africa, key fiscal terms such as royalties and taxes are fixed by legislation. The fiscal framework for petroleum exploration, development and production is covered by the Income Tax Act,[1505] the Mineral and Petroleum Resources Royalty Act (the Royalty Act);[1506] and the Mineral and Petroleum Resources Royalty: Administration Act (the Administration Act).[1507] This is known as a statutory or 'fixed terms' system.[1508] It is important to note that there is no bidding or negotiation of the statutorily fixed fiscal terms. Furthermore, it is important to note that, unlike countries endowed with vast oil and gas resources, there is no 'profit oil share', signature bonuses, or production bonuses on the exploration and production of oil and gas resources in South Africa.

5.5.1. The Income Tax Act

The Income Tax Act[1509] is the general income taxation legislation in South Africa and thus applies to oil and gas companies, as it applies to any other corporate entity. A

[1504] See n 1321 *supra*.

[1505] See n 1311 *supra*.

[1506] See n 1314 *supra*.

[1507] See n 1314 *supra*.

[1508] According to Johnston elements that become part of a contract or fiscal system are usually either negotiated (e.g. in Columbia and Indonesia), statutory or fixed terms (e.g. fixed term plus work program in UK, Norway, Australia, New Zealand and South Africa, or fixed term plus bonus bidding as in USA, Nigeria and Myanmar), or sealed bid round with bid terms as in Venezuela and Libya. See Johnston D 'International Petroleum Fiscal Systems' *UNDP Discussion Paper No. 6 of 2008* at 29 - 31.

[1509] See n 1315 *supra*.

standard corporate income tax (CIT)[1510] rate of 28 per cent and a secondary tax on companies (STC) at 10 per cent is levied on petroleum production companies.[1511] In terms of this Act, the holder of a production right is liable for income tax payable to the South African Revenue Services (SARS) on the annual taxable income derived by such holder from the sale of petroleum (referred to in the Income Tax Act as 'natural oil') or any other product of exploration operations.

5.5.2. The Royalty Act

As Cawood and Mcfarlane note, 'from a resource owner's perspective royalties are very effective as a mineral rent collection instrument because they are simple and easy to administer'.[1512] They add that a further characteristic of a mineral royalty in the hands of government is its value as a policy instrument.[1513] It was this policy instrument value of mineral royalty[1514] that prompted the promulgation of the mineral and petroleum royalty policy and legal framework in South Africa.

[1510] As Farnejad indicates 'CIT is a tax on profits which more directly reflects on product price cycles and is normally paid by every corporate entity… The CIT approach is actually targeted at economic rents and is therefore economically superior to royalties because it allows oil companies to deduct their investment costs from their tax base'. See Farnejad H 'How Competitive is the Iranian Buy-Back Contracts in Comparison to Contractual Production Sharing Fiscal Systems?' available at http://www.dundee.ac.uk/cepmlp/car/html/CAR10_ARTICLE16B.PDF (accessed 17 April 2013) p 5.

[1511] See n 1315 *supra*.

[1512] See Cawood FT & McFarlane AS 'The Mineral and Petroleum Royalty Bill—Report to National Treasury' May 2003 *Journal of the South African Institute of Mining and Metallurgy* 213 at 214.

[1513] *Ibid*.

[1514] A mineral royalty is by definition, payment to the holder of the mineral rights when minerals are extracted from the land and sold on the markets. See Cawood & McFarlane n 1520 *supra* at 214.

Due to the government policy and legal position of state sovereignty and custodianship of petroleum resources, section 86(2)(e) of the MPRDA, as amended,[1515] provides for the payment of royalties to the state by the holder of a production right in terms of any relevant law. This is particularly clear from the amended section 3 of the MPRDA, which provides that 'the state royalty must be determined and levied by the Minister of Finance in terms of an Act of Parliament'.[1516] As Cawood and Mcfarlane indicate, if a country's legal system, such as the South African one, does not allow for private ownership of mineral rights, the mineral royalty will, by default, be payable to the state.[1517]

Pursuant to this enabling provision, and with the main objective being to compensate the state for the depletion of public minerals through a royalty charge, after five years of consultation and extensive debates,[1518] together with the associated Mineral and Petroleum Resources Royalty (Administration) Act ('the Administration Act'),[1519] the Mineral and Petroleum Resources Royalty Act ('the Royalty Act')[1520] was promulgated on 17 November 2008.[1521] It provides for the imposition of a royalty on the transfer of

[1515] As amended by s 64(b) Mineral and Petroleum Resources Amendment Act No. 49 of 2008.

[1516] See s 3 of the MPRDA as amended by the Mineral and Petroleum Resources Amendment Act No. 49 of 2008.

[1517] See n 1520 *supra* at 214.

[1518] See Cawood FT 'An Investigation of the Potential Impact of the New South African Mineral and Petroleum Resources Royalty Act' 111 (June) 2011 *The Journal of The Southern African Institute of Mining and Metallurgy* 443.

[1519] See n 1314 *supra*.

[1520] See n 1314 *supra*.

[1521] The Taxation Law Amendment Act, No. 17 of 2009 and the Taxation Laws Second Amendment Act, No. 18 of 2009 deferred the commencement of certain sections of the Royalty Act and the Administration Act to 1 November 2009 and 1 March 2010.

petroleum (and mineral) resources and matters connected therewith.[1522] The new royalty is payable from 1 March 2010.

The phrase 'mineral resource' means 'a mineral and petroleum as defined in section 1 of the MPRDA, regardless of whether that mineral or petroleum undergoes processing (as defined in section 1 of that Act) or manufacturing'.[1523] From this definition, it is clear that it is not only an imposition of a royalty on the transfer of a mineral in the technical sense of solid minerals such as gold and platinum, but also the imposition of a royalty on the transfer of petroleum resources such as oil and gas.[1524] It is also important to note that 'transfer' refers to the disposal, export, or consumption, theft, destruction or loss of a mineral [or petroleum] resource other than by way of flaring or other liberation into the atmosphere during exploration or production, if that mineral [or petroleum] resource has not previously been disposed of, exported, consumed, stolen, destroyed or lost.

Booysen and others succinctly summarise the gist of the Royalty Act as follows:

> in terms of section 2 of the Royalty Act, a person who wins or recovers a petroleum resource from within the country must pay a royalty for the benefit of the National Revenue Fund in respect of the transfer of that petroleum resource. In terms of the Royalty Act, a fluctuating royalty rate will be charged, on gross sales of mineral resources less allowable deductions. The royalty rates (expressed as a percentage) is equal to 0.5 plus the earnings before interest and taxes of the extractor, divided by the extractor's gross sales in respect of the mineral resources multiplied by either 12.5 or 9, depending on whether the mineral resource is classified as a refined or an unrefined mineral resource. The Royalty Act distinguishes between a refined mineral resource and an unrefined mineral resource, as defined in Schedules 1 and 2 to the Royalty Act. The

[1522] See the long title of the Royalty Act.

[1523] See s 1 of the Royalty Act.

[1524] In this chapter the phrase 'petroleum resource will therefore be used instead of 'mineral resource'.

> royalty rate in respect of a refined mineral resource must not exceed 5% and the royalty rate in respect of an unrefined mineral resource must not exceed 7%.[1525]

The Royalty Act therefore provides for the imposition of royalty based on gross production sale. The royalty is imposed in respect of transfer of refined petroleum (oil or gas at inlet of refinery)[1526] only. The applicable royalty rate is determined by multiplying the gross sale of the extractor in respect of that petroleum resource during the year of assessment by the percentage determined in accordance with the following formula:[1527] 0,5 + [earnings before interest and taxes/ (gross sales in respect of refined petroleum resource x 12.5)] x 100.[1528]

It is important to note the exemption of small businesses whose gross sales in respect of the transferred petroleum resource does not exceed R10 million;[1529] whose royalty in respect of all transferred petroleum resource for a year of assessment does not exceed R100 000;[1530] the extractor is a resident throughout that year as defined in the Income Tax Act;[1531] or the extractor is registered for that year pursuant to section 2 of the Administration Act.[1532]

5.5.3. The Administration Act

[1525] See Booysen M *et al* 'Mining and Mineral Law' 131 at 141, available at http://www.webberwentzel.com/wwb/action/media/downloadFile?media_fileid=6910 (accessed 6 November 2012).

[1526] See Schedule 1 of the Royalty Act.

[1527] See s 3(1) of the Royalty Act.

[1528] See s 4(1) of the Royalty Act.

[1529] See s 7(1)(a) of the Royalty Act.

[1530] See s 7(1)(b) of the Royalty Act.

[1531] See s 7(1)(c) of the Royalty Act.

[1532] See s 7(1)(d) of the Royalty Act.

The object of this Act is to provide for administrative procedures in respect of mineral royalties imposed by the Royalty Act.[1533]

In terms of the section 2 of the Administration Act,[1534] the holders of, among others, exploration rights and production rights granted in terms of the MPRDA are required to register with commissioner for the SARS.[1535] Such holders who qualified for such registration on 1 May 2009[1536] were obliged to register by 30 June 2009,[1537] while those who qualified after 1 May 2009 were obliged to register within 60 days after the date on which they qualified for such registration.[1538] A registered person is required to submit an estimate of the royalty payable in respect of a year of assessment within six months after the first day of the year of assessment and must make a payment (together with such return for that payment as the commissioner may prescribe) equal to one half of the royalty so estimated.[1539] The Act also prescribes, among others, other procedures such as submission of returns and final payments;[1540] the form, manner, and place of submissions as determined by the commissioner of SARS;[1541] the maintenance of records by the registered person;[1542] and notices,[1543] withdrawals,[1544] and time limits for assessment.[1545]

5.6. The Unique Features of the South African Model: A Critical Appraisal

[1533] See the long title of the Administration Act.

[1534] See n 10 *supra*.

[1535] See s 2(1)(a) of the Administration Act.

[1536] This is the date on which the Act came into effect. See s 21 of the Administration Act.

[1537] See s 2(2)(a) of the Administration Act.

[1538] See s 2(2)(b) of the Administration Act.

[1539] See s 5(1) of the Administration Act.

[1540] See s 6 of the Administration Act.

[1541] See s 7 of the Administration Act.

[1542] See s 8 of the Administration Act.

[1543] See s 9 of the Administration Act.

[1544] See s 11 of the Administration Act.

[1545] See s 12 of the Administration Act.

South Africa has adopted a general, yet unique, legislation system for the regulation of oil and gas exploitation. The unique features of the South African model include state sovereignty and custodianship of petroleum resources; the absence of a constitutionally conferred right of ownership of petroleum resources by the state; a unique designated agency to deal with applications for petroleum exploration and production; a transparent administrative process based on the 'first-come-first- served' principle; the principle of 'use-it or lose-it'; the drive for black economic empowerment; the submission and implementation of a social and labour plan; and a fully commercial and independent national oil company.

5.6.1. State Sovereignty and Custodianship of Petroleum Resources

As indicated earlier, the MPRDA cites as one of it objects the recognition of the internationally accepted right of the state to exercise sovereignty over all petroleum resources within its jurisdiction.[1546] The principle of state sovereignty is to be found in several United Nations General Assembly Resolutions.[1547] Although this right is internationally recognised and most states have adopted it, South Africa in terms of the MPRDA, does not vest ownership of petroleum resources in the state.[1548] The state therefore does not have an exclusive right to exploit the petroleum resources. It merely holds them in custody for the benefit of the nation as a whole. The MPRDA provides that the petroleum resources are the common heritage of all the people of South Africa and

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[1546] See also Dale n 1323 *supra* at 826. See also Dalupan MCG 'Mining and Sustainable Development: Insights from International Law' in Bastida *et al* n 35 *supra* at 153.

[1547] UN General Assembly Resolution No. 626 (VII) of 21 December 1952; UN General Assembly Resolution 1314 (XIII) of 12 December 1958, UN General Assembly Resolution No. 1803 (XVII) of 14 December 1962; UN General Assembly Resolution No. 2158 (XXI) of 1966; UN General Assembly Resolution 3201 (S- VI) of 01 May 1974. For general discussion of this principle as embodied in the UN General Assembly Resolution, see chapter 2 of this study above at 2.3. See also Dale n 1323 *supra* at 826.

[1548] See Dale n 1323 *supra* at 826.

the state is the custodian thereof for the benefit of all South Africans. As custodian, the state, through the Minister of Mineral Resources, therefore has a right, on application, to grant a reconnaissance permit,[1549] technical cooperation permit,[1550] exploration right,[1551] or production right.[1552]

5.6.2. State as Custodian rather than Owner of Petroleum Resources *in situ*

With the promulgation of the MPRDA in 2002 and its coming into operation from 1 May 2004, South Africa heralded a paradigm shift[1553] in the regulation of the exploitation, development, and production of petroleum (and mineral) resources. The introduction of the MPRDA fundamentally changed the ownership of these resources from private ownership to state sovereignty and custodianship.[1554] In the view of Leon,

> [t]he MPRDA repealed the Minerals Act 1991 (the 'Minerals Act') and the common law to the extent that the common law was in conflict with the MPRDA. It thus abolished the property-law-based system of the Minerals Act, and introduced a fundamentally different regulatory regime – *one of administrative law based on conditional state licences*. Accordingly, landowners no longer owned the mineral rights to the mineral resources on their property. These now fall under the public trust doctrine of 'state custodianship', under which the state, acting through the Minister, holds mineral rights in 'custody' for 'the benefit of all South Africans', and is empowered to 'grant, issue, refuse, control, administer and manage' rights to minerals. The concept of 'state custodianship' is in turn based on South Africa's 'permanent sovereignty' over its mineral and petroleum resources. Both concepts, in turn, have been influenced by two United Nations General Assembly resolutions passed during the Cold War: the first declaring a nation's

[1549] See s 75(1) of the MPRDA.

[1550] See s 77(1) of the MPRDA.

[1551] See s 80(1) of the MPRDA.

[1552] See s 84(1) of the MPRDA.

[1553] See Cawood FT 'The Mineral and Petroleum Resources Development Act of 2002: A Paradigm Shift in Mineral Policy in South Africa' January/February 2004 *The Journal of the South African Institute of Mining and Metallurgy* 53.

[1554] See Leon P 'Whither the South African Mining Industry?' 30(1) (2012) *JENRL* 5 at 9.

permanent sovereignty over its non-renewable natural resources and the second on the creation of a new international economic order.[1555]

The MPRDA, however, stopped short of explicitly vesting ownership of mineral resources in the state. Instead, it cautiously confers on the state as custodian[1556] of these resources, the right to grant the right to explore and produce petroleum resources. As custodian, the state, acting through the Minister of Mineral Resources may grant, issue, refuse, control, administer and manage, among others, any technical co-operation permit,[1557] reconnaissance permit,[1558] exploration right,[1559] and production right.[1560]

According to Cawood and Mcfarlane, in its simplest form, the system of mineral rights ownership in South Africa can be explained as a mixed system of private- and state-owned mineral rights.[1561]

According to Dale[1562] a conclusion may be drawn from this that the ownership of unmined minerals (and thus also petroleum *in situ*) still vests in the landowner in accordance with the Roman Dutch maxim '*cuius est solum eius est ad coelum et ad inferios*'.[1563] Loosely translated, the *cujus est solum, ejus est usque ad coelum et ad*

[1555] *Ibid*.

[1556] Section 3 of the MPRD Act provides that mineral and petroleum resources are the common heritage of all the people of South Africa and that the state is the custodian thereof for the benefit of all South Africans. See also Dale n 1323 *supra* at 826.

[1557] See s 77 of the MPRDA.

[1558] See s 75 of the MPRDA.

[1559] See s 80 of the MPRDA.

[1560] See s 84 of the MPRDA.

[1561] See Cawood & McFarlane n 1520 *supra* at 215.

[1562] See Dale n 1323 *supra* at 827.

[1563] The maxim is comprehensively explained as follows by Wallis JA's in *Agri SA*-

inferos principle, means that the owner of land does not only own the surface of that land but also owns everything beneath the surface of that land to the centre of the earth.[1564] Dale argues that on the basis of the principles '*nemo dat quod non habet*' ('no one can transfer a better title in property than he himself has') and '*nemo plus iurus ad alium transfere quam ipse haberet*' ('no one can transfer a greater right than he himself

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'the common law principle is that the rights of the owner of immovable property extend up to the heavens and down to the centre of the earth. This is expressed in the maxim *cuius est solum eius usque ad coelum et ad inferos*, usually abbreviated in academic writing to the *cuius est solum* principle. Its origins are obscure as it is not to be found in the *Digest* or elsewhere in the *Corpus Iuris Civilis*, but emerges in the writing of the Glossator, Accursius, in the thirteenth century. It is not a principle unique to the civil law tradition but is also applicable, with some qualification in the light of modern conditions, under the English common law. The principle continues to be recognised in our law today, although we have not had occasion to consider some of the difficulties in giving it unrestricted application in modern conditions. Its application leads to the conclusion that the minerals in the soil under the surface of immovable property are owned by, or, to use the Latin expression, part of the *dominium* vested in, the owner of the property. Unlike the English law, where separate ownership of strata of the soil under the surface is possible, such separation was never recognised in Roman Dutch law, so that there could not be a separate ownership of minerals before their extraction from the soil'. See *Agri SA II* n 1501 *supra* at para 32.

[1564] See Morgan n 775 *supra* at 1082-1083; P J Badenhorst, E Van der Vyver, & C N Van Heerden 'Proposed Nationalisation of Mineral Rights in South Africa' *JENRL* 12 (1994) 287 at 291 to 292; Smith *et al* n 82 *supra* at 228; Franklin & Kaplan n 97 *supra* at 4; and FT Cawood & RCA Minnitt 'A Historical Perspective on the Economics of the Ownership of Mineral Rights Ownership' *The Journal of the South African Institute of Mining and Metallurgy* November/December (2008) 369 at 370. As Van der Vyver indicates 'in the common law the owner of land was owner of everything in the land in accordance with the rule *cuius est solum ad coelum et ad inferos* (ownership of land includes everything above the property up into the heavens and below to the centre of the earth). While minerals were not extracted from the land, they formed part of the land and were therefore owned by the owner of the land. Once they were extracted from the land, the minerals became a distinct legal object separate from the land and could consequently become the property of a person other than the landowner. See Van der Vyver JD 'Nationalisation of Mineral Rights in South Africa' (2012) *De Jure* 125 at 126.

has') the state has impliedly reserved for itself the right to prospect and mine, and thus the right to explore for and produce petroleum.[1565]

As in private law, ownership of property is traditionally described as a complete, absolute and exclusive right,[1566] implying that that it is fairly unrestricted in principle;[1567] a pertinent question has always been whether the coming into operation of the MPRDA would constitute expropriation.

The question whether the coming into operation of the MPRDA has resulted in expropriation of mineral (and petroleum) rights is still controversial among legal commentators.[1568] There are mainly two views on this matter. The first and famous is

[1565] See Dale n 1523 *supra* at 827.

[1566] Badenhorst *et al* n 1572 *supra* at 289.

[1567] See Van der Walt n 1317 *supra* 110.

[1568] See Badenhorst *et al* n 1572 *supra*; PJ Badenhorst & R Malherbe 'The Constitutionality of the Mineral Development Draft Bill 2000' 2001 *TSAR* 462-478, 765-785; Leon n 63 *supra* at 614; Badenhorst PJ 'Expropriation by Virtue of the Mineral and Petroleum Resources Development Act: are there Some more Trees in the Forest? 22(3) (2009) *TSAR* 606; Badenhorst PJ 'Berskerming van Mineraalregte: n *Satyagrah*?' (2001) 64 *THRHR* 643-652; Badenhorst PJ & Mostert H 'Revisiting the Transitional Arrangements of the Mineral and Petroleum Resources Development Act 28 of 2002 and the Constitutional Property Clause: An Analysis in two parts: Part I Nature and Content of Rights Acknowledged by the Revised Transitional Provisions' (2003) 14 *Stell LR* 377-400; Badenhorst PJ & Mostert H 'Revisiting the Transitional Arrangements of the Mineral and Petroleum Resources Development Act 28 of 2002 and the Constitutional Property Clause: An Analysis in two parts: Part 2: Constitutionality of Mineral and Petroleum Resources Act's Transitional Provisions' (2004) 15 *Stell LR* 22-51; Nature and Content of Rights Acknowledged by the Revised Transitional Provisions'; Badenhorst PJ & Mostert H (assisted by Carnelly M, Stein RT & Van Rooyen M) *Mineral and Petroleum Law of South Africa: Commentary and Statutes* (2004); and Van der Vyver n 1572 *supra*.

that the coming into operation of the MPRDA indeed constitutes expropriation.[1569] For instance, commenting on the *Agri SA* judgment,[1570] Badenhorst argued that the 'before-and–after' comparison of the rights of the holders of 'unused old order rights' with their right as from 1 May 2004, indicates that an expropriation has taken place.[1571] Commentators who subscribe to this view, however, differ on the basis of this argument. Badenhorst, who is the leading proponent of this view, is of the opinion that the coming into operation of the MPRDA vested the ownership of unservered minerals rights in the state and thus abrogated the *ad coelum* principle.[1572] Van der Schyff, on the other hand, is of the view that as a result of the coming into operation of the MPRDA, ownership of mineral rights is vested in the state in accordance with the public trust doctrine.[1573] In

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[1569] Badenhorst is the leading proponent of this perspective. See Badenhorst n 1572 and n 1576 *supra*; Leon n 63 *supra;* and van der Vyver n 1572 *supra* at 132. For instance, according to van der Vyver (n 1572 *supra* at 132) 'it would seem that proclaiming all mineral and petroleum resources to be the common heritage of all the people of South Africa amounted to expropriation'.

[1570] *Agri South Africa v The Minister of Minerals and Energy; Van Rooyen v The Minister of Minerals and Energy* (55896/2007; 10235/2008) [2009] ZAGPPHC 2 (6 March 2009)) 2010 (1) SA 104 GNP; 2009 *JOL* 23248 (GNP) (hereafter '*Agri South Africa I*'). In this case the High Court, North Gauteng decided changes brought about by the MPRDA amounted to expropriation of the 'old order' rights of a landowner and/or of the holder of mineral rights did amount to expropriation. However, the Supreme Court of Appeal begged to differ. See *Agri South Africa II* n 1501 *supra*. The matter is currently pending before the Constitutional Court of South Africa. See also van der Vyver n 1572 *supra*.

[1571] See Badenhorst 'Expropriation by Virtue of...' n 1576 *supra* at 606.

[1572] *Ibid.*

[1573] See Van der Schyff E 'Who "Owns" the Country's Mineral Resources? the Possible Incorporation of the Public Trust Doctrine through the Mineral and Petroleum Resources Development Act 4 (2008) *TSAR* 757. In terms of the public trust doctrine the 'tide and submerged lands are unique and that the state holds them in trust for the people' is traceable to Roman law concepts of common property in terms of which the air, the rivers, the sea and the seashore were incapable of private ownership; they were dedicated to the use of the public; and it has endured throughout the ages. See generally Sax JL 'The Public Trust Doctrine in Natural

other words, the MPRDA introduces the public trust doctrine into South African law. Explaining the operation of the public trust doctrine to mineral (and petroleum resources), Epstein indicated that,

> state is the owner of these resources, in trust for the public at large, now endows a single group of individuals with the power to dispose of the minerals to private parties. The language of the public trust is far more than an idle metaphor because it is quite clear that the public officials in question cannot treat the proceeds of sale as their private property. Instead they are required to hold the moneys received as part of the public treasury, that is, for the benefit of all the individuals who had in the original position some undivided interests in the underlying mineral rights.[1574]

As Epstein[1575] indicates, the application of the public trust doctrine to the management and regulation of natural resources such as oil and gas is captured by Sax in his early and influential treatment of the subject as follows:

> it is clear that the judicial techniques developed in public trust cases need not be limited either to these few conventional interests [e.g. rivers, streams or parklands] or to questions of disposition of public properties. Public trust problems are found whenever governmental regulation comes into question, and they occur in a wide range of situations in which diffuse public interests need protection against tightly organized groups with clear and immediate goals.[1576]

An interesting and somewhat convincing view is that of Van der Walt.[1577] According to him, ownership of mineral rights vests in the state, not because of the abrogation of the *ad coelum* principle nor on the basis of the public trust doctrine, but because the MPRDA replaced the private property law dispensation of mineral rights ownership with a new public law dispensation thus removing mineral rights from the private domain and

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Resources Law: Effective Judicial Intervention' 68(471) (January 1970) *Michigan Law Review* 471 at 475; and Epstein RA 'The Public Trust Doctrine' 7(2) (Fall 1987) *Cato Journal* 411.

[1574] See Epstein n 1581 *supra* at 421.

[1575] See Epstein n 1581 *supra* at 429.

[1576] See Sax n 1581 *supra* at 566.

[1577] See Van der Walt n 1317 *supra* at 378.

vesting them in the state.[1578] To van der Vyver, 'the essence of the matter is… that mineral and mining rights were expropriated on the day the MPRDA entered into force, and the granting and extensive regulation of the exercise of prospecting and mining rights is a consequence of the change in ownership of mineral and petroleum resources'.[1579]

The second perspective, namely that the coming into operation of the MPRDA does not constitute expropriation is less popular but nevertheless more convincing. The main proponent of this view is Michael Dale. According to him, ownership of unservered mineral vests in the land owner because the MPRDA does not abrogate the *ad coelum* principle.[1580]

The issue whether the introduction of the MPRDA has resulted in expropriation of mineral and petroleum resources has been settled by Wallis AJ in *Agri SA* as follows:

> It seems to me that the key issue is not whether, as a result of the exercise of the power to allocate the right to mine, that right was placed in the hands of persons in the private sector, which is inevitable unless the mines are nationalised. It is rather whether the right vested in the State, along with the power to allocate the right to others, or whether it vested in individuals arising from their ownership of land or some other private source. In my view it was the former. That being so the MPRDA is merely the latest in a long line of legislation and statutory instruments in South Africa that affirms the principle that the right to mine is controlled by the State, and allocated to those who wish to exercise it. The right to mine remains, as it has always been, ever since mining became an important part of the economy of South Africa, under the control of and vested in the State, which allocates it in accordance with current policy. That being so the first requirement of an expropriation, namely that there be a deprivation of property, is not established insofar as the right to mine is concerned. That right was never vested in the holders of mineral rights, but was vested in the State and allocated to those holders in accordance with the legislation applicable to it from time to time. It could not therefore be

[1578] *Ibid*.

[1579] See Van der Vyver n 1317 *supra* at 138.

[1580] See Dale n 1323 *supra* at 823 and 827.

expropriated although rights flowing from the State's allocation of the right to mine could.[1581]

At para 99, Wallis AJ concluded as follows:

> …the right to mine in South Africa, in the sense of the right to prospect and mine for minerals and extract and dispose of them, is vested in the State. It is allocated by the State in accordance with policies that are determined from time to time and embodied in the applicable legislation. The MPRDA is the current iteration of that right. The contention that all mineral rights that existed in South Africa under the 1991 Act were expropriated under the MPRDA is incorrect. The judgment does not exclude the possibility that the MPRDA may have effected an expropriation of certain rights that existed under the previous dispensation, but holds that whether it did so depends not on any general expropriation of mineral rights, but on the facts of a particular case. Nor does it decide that the effect of a broadly regulatory statute cannot be to effect an expropriation, but leaves that open for the future. In fact the judgment is not concerned with the regulatory impact of the MPRDA as opposed to its substantive treatment of the right to mine. I do not find it helpful to pose the issues in this case as being regulatory vs expropriatory. In my view the right to mine, as opposed to its allocation, is not a regulatory matter, but a matter of the substantive powers of the State in contrast to private law rights to property.

This dictum is criticised by Van der Vyver.[1582] According to this author, the SCA has 'more or less ignored the language of the Constitution and proceeded on the assumption that "acquisition by or through the expropriating authority is a characteristic of an expropriation in terms of [section] 25(2).'[1583] Van der Vyver notes that acquisition by whomsoever of the property expropriated is not mentioned at all in section 25(2), or elsewhere in the Constitution; and further that the question whether or not the right expropriated must accrue to the state has had a chequered history in South African case law; and that it has been decided on occasion that expropriation requires acquisition of

[1581] See *Agri SA II* n 1501 *supra* at para 85.

[1582] See n 1572 *supra* at 131.

[1583] *Ibid*.

the expropriated right by the state; Van Vyver also argues that the Constitution permitted an expropriation in the public interest even if the party ultimately acquiring the property was not the state.[1584] He further suggests that 'although acquisition is commonly proclaimed to be an essential element of expropriation, this has to the best of my knowledge never really been put to the test. I know of no case in which it was decided that the deprivation of a property right was not a matter of expropriation because the right of which the right's holder was dispossessed was not transferred to or acquired by a public authority or someone else'.[1585] Contrary to van der Vyver, I believe that *Agri SA II* was such a test. It is not clear why Van der Vyver, writing from afar in Atlanta, Georgia, denies that the judgment qualifies as such.

The matter has most recently been laid to rest by the Constitutional Court in *Agri SA III*.[1586] Dismissing the appeal against the judgment of the SCA, Mogoeng CJ held that

> [t]he MPRDA is the legal instrument through which Sebenza was deprived of its coal rights. This therefore is a compulsory deprivation. The custodianship of this and other mineral and petroleum resources is, in terms of the MPRDA, vested in the state on behalf of the people of South Africa. The critical question is, however, whether this deprivation, the assumption of custodianship and the power to grant others what could previously have been granted only by holders, means that the state acquired ownership of rights to these mineral and petroleum resources. The answer is no. Unlike in the case of the state (i) acquiring land for governmental projects such as road infrastructure, industrial development or other purposes, and (ii) acquiring mineral rights so that it could exploit them, in this case the state did not acquire any mineral rights, including those of Sebenza, at the commencement of the MPRDA. The state, as the custodian of these resources, is not seeking or supposed to be a co-contender with people or business entities for the right to prospect for or mine these minerals. It is a facilitator or a conduit

[1584] *Ibid*.

[1585] *Ibid*.

[1586] *Agri SA v Minister of Mineral Resources and Others* Case CCT 51/12 [2013] ZACC 9 (*Agri SA III*).

through which broader and equitable access to mineral and petroleum resources can be realised.[1587]

The court clearly distinguished between deprivation and expropriation and held that although there was a deprivation, it was not arbitrary and it could not qualify as an expropriation. However, the court noted the importance of deciding this issue on a case-by-case basis in order to leave the door opened for others to challenge the MPRDA on the grounds of expropriation. While the MPRDA might still be challenged in future on grounds of expropriation, I do not see reasonable grounds of success on this challenge especially in the Constitutional Court if the argument is that the implementation of the MPRDA resulted in the whole sale expropriation of mineral and petroleum resources. The question as to what happened to the existing mineral and petroleum rights when the MPRDA took effect still remains unanswered. However, I agree with Mogoeng CJ that whatever happened to them, they were not expropriated because the regulation and definition of these rights in the MPRDA qualifies as a mere amendment of already existing statutory regulations and definitions.

5.6.3. Designated Agency: the Petroleum Agency of South Africa (PASA)

In terms of section 70 of the MPRDA the Minister of Mineral Resources may designate an organ of state or a wholly owned and controlled agency or company belonging to the state to perform the functions referred to in chapter 6 of the MPRDA, which regulates petroleum exploration and production in South Africa. Pursuant to this provision, the Petroleum Agency SA (PASA) [1588] was designated on the 18th of June 2004 to regulate petroleum exploration and production on behalf of government of South Africa.

[1587] See *Agri SA III* n 1594 *supra* at para 68.

[1588] The mandate of the PASA consists of elements set out in the Ministerial Directive dated 16 April 1999 (Schedule 3), in the White Paper on Energy Policy of 1998, in the MPRDA, as the agency designated in terms of section 70, and in the Memorandum and Articles of the Association of the Petroleum Agency. See 'South African Agency for Promotion of Petroleum Exploration and Exploitation (Pty) Ltd' available at

As South Africa's designated agency in terms of section 70 of the MPRDA, for the promotion of onshore and offshore petroleum exploration, PASA is empowered to issue exploration rights for an initial period of three years, which are renewable for a maximum of three additional two-year periods. Should exploration prove successful, the exploration right could move to secure a production right for a period of 30 years, which is also renewable.[1589]

Section 71 of the MPRDA makes express provision for the functions of the designated agency. In terms of this section, the designated agency (PASA) must-

(a) promote onshore and offshore exploration for and production of petroleum;
(b) receive applications for reconnaissance permits, technical co-operation permits, exploration rights and production rights in the prescribed manner;
(c) evaluate such applications and make recommendations to the Minister;
(d) monitor and report regularly to the Minister in respect of compliance with such permits or rights;
(e) receive, maintain, store, interpret, evaluate, add value to, disseminate or deal in all geological or geophysical information relating to petroleum submitted in terms of section 88 of the MPRDA;[1590]

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http://www.petroleumagencysa.com/Libraries/PAIA_Manuals/PAIA_Manual_English.sflb.ashx (accessed 14 October 2012). Prior to this designation, this agency was a Petroleum Licensing Unit (PLU) of Soekor which was mandate to regulate only offshore (and not onshore) petroleum exploration. See Clarke n 1307 *supra* at 351. PASA is also a subsidiary of CEF (the Central Energy Fund).

[1589] See *Energy Pedia News* November 25, 2009 'South Africa: Statoil and Sasol Apply for Shale Gas Exploration Rights' available http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 24 August 2012).

[1590] In terms of s 88(1) of the MPRDA the holder of any permit or right who conducts reconnaissance operation, technical co-operation studies, exploration operations or production operations must submit such information, data, reports and interpretations to the designated agency as may be prescribed.

(f) bring to the notice of the Minister any information in relation to the exploration and production of petroleum resources which is likely to be of use or benefit to the state;
(g) advise and recommend to the Minister on the need to by itself, through contractors, or through any other state enterprise, carry out, on behalf of the state, reconnaissance operations in connection with petroleum resources;
(h) collect the prescribed fees and considerations in respect of reconnaissance permits, technical co-operation permits, exploration rights and production rights;
(i) review and make recommendations to the Minister with regard to the approval of environmental management plans, environmental management programmes, development programmes and amendments thereto; and
(j) perform any other function, in respect of petroleum resources, which the Minister may determine from time to time.

5.6.4. An Administrative Decision-making Process based on the 'First-come, First-served' Principle

South Africa's first, and thus far only, licensing round was launched in 1994. Like many governments and NOCs on the African continent, during this period, South Africa sought to encourage new developments with successive bid rounds, the opening of new fields and large areas of prospective acreage and shift towards independent licensing.[1591] However, the failure to attract interest led South Africa, through PASA, to operate on a 'first-come, first-served'[1592] basis when awarding exploration and production licenses. This means that rather than dealing with conflicting applications on merit, the date of lodgement of the application becomes imperative. The only exception is that when applications are lodged on the same day, preference is given to the Historically

[1591] Other African countries include Mozambique, Mali, Algeria, and São Tomé and Príncipe. See Clarke n 1307 *supra* at 79.

[1592] *Ibid*. See also Dale n 1323 *supra* at 832; Williams JP 'The Lating American Mining Model' in Bastida *et al* n 35 *supra* at 747; and Ibraimo L 'Comparative Mineral Law in African Portuguese-Speaking Countries' in Bastida *et al* n 35 *supra* at 899.

Disadvantaged South Africans (HDSAs). South Africa has therefore adopted the 'first-come, first-serve' strategy for acreage acquisition, with more rapid negotiations to secure new entries, thus encouraging an infusion of multiple independents.[1593] The ANC's commission on State Intervention in the Minerals Sector (SIMS) refers to this system as the 'first-in, first-assessed (FIFA)' principle.[1594]

With regard to the order of processing mineral and petroleum development applications, section 9 of the MPRDA, read together with section 69 of the same Act, also provides that competing applications (for the same mineral and land) will be dealt with in the order of receipt. When applications are received on the same date, preference will be given to those submitted by HDSAs.[1595] However, as demonstrated later in this chapter, this strategy is sought to be abolished in the latest legal reforms proposed.

It is also important to note that the SIMS report argues that the existing system for awarding mining rights, based on the 'first-in, first-assessed' (FIFA) principle, should be replaced by a competitive bidding system.[1596]

5.6.5. The 'Use-it or Lose-it' Principle

The 1998 Policy on Minerals and Mining indicated that the South African government will promote minerals development by applying the 'use-it or-lose-it' principle. As Cawood and Minnitt indicate, 'it is the intention of the government to vest all mineral

[1593] See Clarke n 1307 *supra* at 79; and Dale n 1323 *supra* at 832.

[1594] See ANC *Maximising the Developmental Impact of the People's Mineral Assets: State Intervention in the Minerals Sector (SIMS)*, Policy Discussion Document, March 2012. See also Bello O *et al* 'Governance of Africa's Resources: Assessing Competitive Resource Tenders as an Option for Mining Rights Allocation in South Africa' Southern African Institute of International Affairs Occasional Paper No. No. 159 of November 2013, at page 6.

[1595] See s 9(2) of the MPRDA.

[1596] See the *SIMS Report* n 595 *supra*.

rights in the state "for the benefit of all the people of South Africa" by applying the "use-it or lose-it or use-it and keep-it" principle'.[1597] This principle manifests in the MPRDA.

Schedule II to the MPRDA, which dealt with the transitional arrangements at the time the MPRDA came into effect, refers to, among others, 'unused old order rights'. An 'unused old order right' is defined as 'any right, entitlement, permit or licence listed in table 3 to this Schedule in respect of which no prospecting or mining was being conducted immediately before this Act took effect'.

Item 8 Schedule II of the MPRDA deals with 'unused old order rights'. This item which is entitled 'processing of unused old order rights' provides that any unused old order right in force immediately before this Act took effect continues to be in force subject to the terms and conditions under which it was granted, acquired or issued, or was deemed to have been granted or issued, for a period not exceeding one year from the date on which this Act took effect.[1598] The holder of an unused old order right had the exclusive right to apply for a prospecting right, or a mining right as the case might be, in terms of this Act within the period referred to in sub-item 1.[1599] An unused old order right in respect of which an application had been lodged within the period referred to in sub-item 1 remained valid until such time as the application for a right was granted and dealt with in terms of this Act or was refused.[1600] Subject to sub items 2 and 3, an unused old order right ceased to exist upon the expiry of the period contemplated in sub-item 1.[1601]

[1597] See Cawood FT & Minnitt RCA 'A New Royalty for South African Mineral Resources (March/April 2001) *The Journal of The South African Institute of Mining and Metallurgy* 91.

[1598] See item 8(1) of the MPRDA.

[1599] See item 8(2) of the MPRDA.

[1600] See item 8(3) of the MPRDA.

[1601] See item 8(4) of the MPRDA.

In terms of the MPRDA's transitional arrangement (in Schedule II) existing mining rights, termed used or 'unused old order rights,'[1602] had to be converted into 'new order rights'[1603] in accordance with the new regime of state custodianship of mineral rights. The process of conversion had to take place within a reasonable time after the coming into operation of the MPRDA. Failure to apply for conversion would result in the owners of such rights losing them. In this regard, the MPRDA therefore introduced the 'use it or lose it' principle. However, as indicated earlier and as confirmed by both the SCA and the Constitutional Court, this does not necessarily constitute expropriation in the *AgriSA* case.

5.6.6. Socio-economic Black Empowerment Policy Framework

The South African democratic government has adopted a broad policy framework which is aimed at encouraging, or, in some industries such as the petroleum industry enforcing, increased participation by HDSAs including, among others, blacks and women. This policy is known as Black Economic Empowerment (BEE).

In line with this policy, the MPRDA includes, as one of its explicit objects, the need to substantially and meaningfully expand opportunities for HDSAs, including women, to enter the mineral and petroleum industries and to benefit from exploitation of the nation's mineral and petroleum resources.[1604] The MPRD Amendment Act 28 0f 2008 provides for the inclusion of communities to enter into and actively participate in the

[1602] See Item 1 of Schedule II of the MPRDA which defines 'unused old order rights' as any right, entitlement, permit or licence listed in Table 3 to this Schedule in respect of which no prospecting or mining was being conducted immediately before this Act took effect'. See *Agri SA I* n 1578 *supra* at para 11.

[1603] See *Agri SA I* n 1578 *supra* at para 11.

[1604] See s 2(d) of the MPRDA.

mineral and petroleum industries and to benefit from the exploration of the nation's mineral and petroleum resources.[1605]

In order to ensure the attainment of government's broad objectives as outlined in the BEE policy, of redressing historical, social, and economic equalities as stated in the Constitution, section 100 of the MPRDA mandates the Minister of Mineral Resources to develop a broad-based social empowerment charter that will set the framework, targets and timetable for effecting the entry of HDSAs into the petroleum industry, and allow such South Africans to benefit from the exploitation of petroleum and mineral resources, within six months from the date on which the MPRDA takes effect.[1606]

Such a charter, called 'the Broad-Based Socio-Economic Empowerment Charter for the South African Mining Industry' or 'the mining charter', and a related 'scorecard' have been developed and has also been recently revised. The scorecard sets out the requirements of the Charter in table form, and provides blocks for 'checking' whether or not a mining company has complied with each of the nine elements to which it relates, namely human resource development,[1607] employment equity,[1608] migrant labour,[1609]

[1605] See s 2 of the MPRD Amendment Act No. 28 of 2008. It is interesting to note that since its enactment, this Act has never come into effect.

[1606] See s 100(2)(a) of the MPRDA.

[1607] The mining industry will perform a skills audit, from which a comprehensive skills development strategy will be developed. Providing scholarships for mining related education will cater for long-term needs. In the short-term, employers will provide skills training to miners during employment in order to improve their income earning capacity after mine closure. These will include training in entrepreneurial skills and a programme to ensure adult literacy and numeracy by 2005. Mentoring programmes and career paths for HDSAs will be part of the new system.

[1608] Companies must publish employment equity plans and achievements and establish targets for employment equity for both junior and senior management positions (recommended 40 per cent in five years, time). There will be special training programmes for HDSAs and talented individuals will be fast tracked.

mine community,[1610] housing and living conditions,[1611] procurement,[1612] ownership,[1613] and beneficiation.[1614]

[1609] Prohibition of discrimination against foreign labour, and labour-sending areas must share in the benefits of mineral development.

[1610] The mining industry undertook to formulate development plans for communities as part of spreading the benefits of mining.

[1611] The mining industry undertook to improve the standard of housing and nutrition for live-in employees by upgrading the current hostel system to family units and to develop home ownership schemes for all employees.

[1612] Procurement objectives could be achieved by giving HDSAs preferred supplier status in the provision of capital goods, services and consumables and to encourage existing suppliers to form partnerships with HDSAs companies. The Charter makes the following provisions to ensure that the mining industry must procure from BEE entities in accordance with the following criteria, subject to the provisions of
clause 2.9:
• procure a minimum of 40 per cent of capital goods from BEE entities by 2014;
• ensure that multinational suppliers of capital goods annually contribute a minimum
of 0.5 per cent of annual income generated from local mining companies towards socioeconomic development of local communities into a social development fund from
2010; and
• procure 70 percent of services and 50 percent of consumer goods from BEE entities by 2014.
The targets above are exclusive of non-discretionary procurement expenditure.

[1613] The aim is to achieve 26 percent HDSAs ownership within 10 years. A programme will be initiated in order to achieve such participation, which programme must be reviewed after five years in order to ensure that the goal is reached within ten years. In order to achieve a substantial change in racial and gender disparities prevalent in ownership of mining assets, and thus pave the way for meaningful participation of HDSAs for attainment of sustainable growth of the mining industry, stakeholders commit to:

• achieve a minimum target of 26 percent ownership to enable meaningful economic participation of HDSAs by 2014; and

In relation to the granting of an exploration right, section 80(1)(g) provides that the Minister must grant such a right if the granting of such a right will further the objects referred to in section 2(d) and 2(f); namely to substantially and meaningfully expand HDSAs, including women and local communities to enter into and actively participate in the mineral and the petroleum industries and to benefit from exploitation of the nation's mineral and petroleum resources; and to promote employment and advance the social and economic welfare of all South Africans. This is echoed in section 84(1)(i)[1615] of the MPRDA which adds an absolute requirement for compliance with the Charter contemplated in section 100[1616] of the MPRDA for the granting of a production right.

•the only offsetting permissible under the ownership element is against the value of beneficiation, as provided for by section 26 of the MPRDA and elaborated in the mineral beneficiation framework.

[1614] In an attempt to motivate industry to grow levels of beneficiation, the DME (the Department of Minerals and Energy, currently the DMR or the Department of Mineral Resources) will allow companies to offset the value of beneficiation against HDSAs ownership targets. With regard to beneficiation, production companies must facilitate local beneficiation of mineral commodities by adhering to the provision of section 26 of the MPRDA and the mineral beneficiation strategy. Mining companies may offset the value of the level of beneficiation achieved by the company against a portion of its HDSA ownership requirements not exceeding 11 percent.

[1615] Section 84(1)(i) of the MPRDA provides that the Minister of Mineral Resources must grant a production right if the granting of such right will further the object referred to in ss 2(d) and (f) and in accordance with the Charter contemplated in section 100 and the prescribed social and labour plan.

[1616] The relationship between the Charter and recently published Codes of Good Practice, published under the Broad-Based Black Economic Empowerment Act, 2003, remains unclear. The Codes of Good Practice are intended to be the yardstick against which all industry BEE initiatives are measured. The Charter and Scorecard, however, differ significantly from the Codes of Good Practice and the detailed 'Generic Scorecard' for measuring BEE compliance that the Codes specify. It is not clear to what extent the Codes of Good Practice will affect the award of rights under the MPRDA and the conversions of old order rights during the transitional phase. However, the Minister is presently applying the Charter for purposes of measuring BEE

5.6.7. The Submission and Implementation of a Social and Labour Plan

The purpose of the MPRDA is to meet the need to transform the petroleum production industry in South Africa. Its objectives include the promotion of employment and the advancement of the social and economic welfare of all South Africans;[1617] the substantially and meaningfully expansion of opportunities for HDSAs, including women, to enter the petroleum industry and to benefit from the exploitation of these resources;[1618] and ensuring that holders of production rights contribute towards the socio-economic development of the areas in which they are operating as well as the areas from which the majority of the workforce is sourced.[1619]

In order to meet these objectives and thus ensure effective transformation of the petroleum industry, the MPRDA makes provision for the submission and implementation of a social and labour plan. Section 84(1)(g)[1620] of the MPRDA provides that the Minister of Mineral Resources must grant a production right if the applicant has provided financially or otherwise for a prescribed social and labour plan. Regulation 42 of the MPRDA provides that an application for a production right must be accompanied by a social and labour plan. Section 86(1)(d)[1621] provides that the holder of a production right must comply with the requirements of the social and labour plan.

In terms of the supporting Regulations that prescribes the social and labour plans, the purpose and objectives of such a plan are to integrate and manage the social, economic and environmental impacts of mining within all the phases of a mine, until closure; to

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compliance in awarding rights, granting conversions and approving the transfer of rights in terms of s 11 of the MPRDA.

[1617] See s 2(f) of the MPRDA.

[1618] See s 2(d) of the MPRDA.

[1619] See s 2(i) of the MPRDA, and the Charter.

[1620] See also s 23(1)(e) for similar provisions in respect of mining rights.

[1621] See also s 25(1)(f) for similar provisions in respect of mining rights.

avoid job losses and mitigate social and economic impacts on individuals should a production operation close prematurely or at the closure of the production operation; and to avoid the establishment of settlements, which cannot be sustained after the closure of production operations.[1622]

To this effect, the social and labour plan requires applicants for production rights to develop and implement comprehensive human resources development programmes, mine community development plans, housing and living conditions plans, employment equity plans, and processes to save jobs and manage downscaling and/or closure.[1623]

According to the *Department of Mineral Resources' Guideline for the Submission of a Social and Labour Plan,* the primary objective of the human resource development programme is to ensure development of requisite skills in respect of learnerships, bursaries (of core and critical skills), artisans, ABET training (level I, II, III, IV and NQF 1), other training initiatives reflective of demographics as defined in the amended mining charter. This include compliance with skills development legislation by applicants who, by law, are required to register with the Skills Education Training Authorities (SETAs); the provision of a detailed skills development plan that outlines how the production operation intends to offer employees development of requisite skills in respect of learnerships, bursaries (of core and critical skills), artisans, ABET training (level I, II, III, IV and NQF 1), other training initiatives reflective of demographics as defined in the amended mining charter; the provision of vacancies that the production operation has been unable to fill for a period longer than 12 months despite concerted effort to recruit suitable candidates, if any; provision of career progression (path) plans; the provision for mentorship plans; and the provision of bursary and internship plans.

As far as the employment equity plan is concerned, the purpose is to ensure diversity as well as participation of HDSAs at all decision-making levels and core occupational categories in the petroleum production industry. Every production company must

[1622] See clause 46 of the Regulations of the MPRDA.

[1623] *Ibid*.

achieve a minimum of 40 per cent HDSAs in management reflective of demographic representation. The plan should reflect the annual progressive targets.

The primary objective of community development is to meaningfully contribute towards community development, both in terms of size and impact, in keeping with the principles of the social license to operate. The production operation must consult and co-operate in the formulation and review of the Integrated Development Plans (IDPs) of the communities. The production operation must furthermore consult with other economic development frameworks like Provincial Growth and Development Strategy (PGDS), National Spatial Development Strategy (NSDS), National Priorities and any other relevant stakeholders. The production operation must, through consultation with communities and relevant authorities provide a plan. The plan should be in line with the IDP's of the community. The plan should outline the social and economic baseline information of the community;[1624] the key economic activities of the community;[1625] the potential negative impact of the operation on the community, including relocation, grave exhumation and the influx of people that could result in informal settlement; and the infrastructure and poverty eradication projects that the mine would undertake in line with the IDP of the areas and other relevant frameworks in which the production operates and the major sending areas.[1626]

The applicant for a production right must also make provision for measures to address the housing and living conditions of employees,[1627] including, but not limited to, the promotion of home ownership; the conversion of hostels into single quarters and family units, and the reduction of occupancy rate reflecting the specific targets ranging from 25 per cent in 2011 to 100 per cent in 2014.

[1624] See clause 46(c)(i) of the Regulations of the MPRDA.

[1625] See clause 46(c)(ii) of the Regulations of the MPRDA.

[1626] See clause 46(c)(iv) of the Regulations of the MPRDA.

[1627] See clause 46(c)(iv) of the Regulations of the MPRDA.

Lastly, the applicant for a production right must make provision for the management of downscaling and retrenchment of employees in the social and labour plan.[1628] These measures should include an undertaking, within six months of conversion of an old order production right, to establish a future forum consisting of the management and workers or their representatives to promote ongoing discussions about the future of the operation;[1629] to identify problems, challenges and propose solutions for productivity and employment;[1630] and to develop turnaround and redeployment strategies to help reduce job losses and to improve business sustainability. The measures should also include mechanisms to save jobs, provide alternative solutions and procedures for creating job security where job losses cannot be avoided;[1631] a process to be followed in managing retrenchments humanely in consultation with organized labour;[1632] and mechanisms to ameliorate the social and economic impact on individuals, regions and economies where retrenchment or closure of the operation is certain.[1633]

In line with sections 84(1)(g) of the MPRDA, the applicant for a production right must provide financially and otherwise for the social and labour plan. Such a financial provision should be in monetary value; and should cater for all components of the social and labour plan.

5.7. South Africa's NOC: The PetroSA

South Africa's state owned oil and gas company is called the Petroleum Oil and Gas Corporation of South Africa (Pty) (PetroSA). It is important to point out that PetroSA and PASA, or the Petroleum Agency SA, are two different institutions with different responsibilities in the oil and gas upstream sector in South Africa. As indicated earlier,

[1628] See clause 42 of the Regulations of the MPRDA.

[1629] See clause 46(d)(i) of the Regulations of the MPRDA.

[1630] See clause 46(d)(ii) of the Regulations of the MPRDA.

[1631] See clause 46(d)(iii) of the Regulations of the MPRDA.

[1632] See s 52 of the MPRDA and regulation 46(e) of the Regulations of the MPRDA.

[1633] See clause 46(d)(iv) of the Regulations of the MPRDA.

PASA is a designated agency of the Department of Mineral Resources, tasked to regulate exploration and production activities. PetroSA, on the other hand, is South Africa's NOC. PetroSA is a wholly owned subsidiary of the Central Energy Fund (CEF) (Pty) Ltd.[1634] The Minister of Energy is the current executive authority of PetroSA and government is the main shareholder of the company.[1635] PetroSA was formed in July 2000 from the merger of the businesses of Mossgas (Pty) Limited, parts of the Strategic Fuel Fund (SFF), another subsidiary of CEF, and Soekor E and P (Pty) Limited, in order to effectively develop and exploit crude oil and gaseous hydrocarbon resources of South Africa.[1636]

[1634] See Matsho n 1334 *supr*a at 48. According to the Report of the Public Protector in terms of s 182(1)(b) of the Constitution, 1996 and s 8(2)(b) of the Public Protector ACT, 1994: *Report on an Investigation into Allegations of Misappropriation of Public Funds by the Petroleum Oil and Gas Corporation of South Africa, Trading as PetroSA, and Matters Allegedly Related Thereto* Report No 30 of 29 July 2005 at 49 (hereinafter '*the Report of the Public Protector*'); 'Petro SA was formed in July 2000 out of a merger of the business of Mossgas and Soekor as well as parts of the business undertaken by the Strategic Oil Fund, in order to effectively explore, develop, manufacture and trade the crude oil and gaseous hydrocarbon resources of South Africa'. The CEF (Pty) Ltd is a statutory company established to acquire, exploit, generate, manufacture, market and distribute any energy form and conduct research relating to the energy sector'. See also the case of *The Public Protector v Mail & Guardian Ltd* (422/10) [2011] ZASCA 108 (1 JUNE 2011) at para 34. Its specific mandate is to procure and store crude oil as well as manage the strategic crude oil stocks for South Africa. See *the Report of the Public Protector* n 1642 *supra* at 59. It controls Petro SA on behalf of the state as the sole shareholder, responsible to the minister and to parliament, with finances monitored by the auditor-general, regular published accounts and a tradition of disclosure. See also Clarke n 1262 *supra* at 353.

[1635] See the also *the Report of the Public Protector* n 1592 *supra*.

[1636] See Matsho n 1289 *supra* at 48; *the Report of the Public Protector* n 1592 *supra* at 21; and Clarke n 1307 *supra* at 349.

Mossgas and Soekor were established by CEF in terms of the Central Energy Fund Act No. 38 of 1977.[1637] PetroSA contributes to South Africa's development by creating value out of the country's indigenous crude oil and natural gas resources.[1638] PetroSA's vision is to be a leading and competitively integrated provider of oil, gas and petrochemicals in Africa and global markets.[1639] Its mission is to commercially explore, produce, refine and market oil, gas and petrochemicals for the benefit of consumers and shareholders through innovation, quality products and empowering.[1640] Over the years, PetroSA has built up a great deal of expertise.[1641] The company is well known for its expertise in such fields as petroleum geology, seismic processing and interpretation, and reservoir and drilling engineering.[1642] Approximately 8 per cent of South Africa's liquid fuels requirements in the form of, among others, petrol, diesel, paraffin, light and heavy alcohols, liquid oxygen and nitrogen, is produced by PetroSA.[1643]

Unlike the NOCs in Nigeria and Angola, PetroSA is a purely commercial entity with commercial interests and responsibilities. As indicated earlier, PetroSA strives to be a leading and competitively integrated commercial entity responsible for the provision of oil and gas resources in Africa and in the global market.

[1637] The Central Energy Fund is referred to in Schedule 2 of the Public Finance Management Act of 1999 (hereinafter 'the PFMA', as a 'major public entity'. It is also provided that any subsidiary or entity under the ownership or control of a major public entity, forms part of Schedule 2. These include PetroSA. See *the Report of the Public Protector* n 1642 *supra* at 21.

[1638] *Ibid*.

[1639] *Ibid*.

[1640] *Ibid*.

[1641] *Ibid*.

[1642] *Ibid*.

[1643] See *the Report of the Public Protector* n 1642 *supra*.

Its activities include the exploration and production of oil and gas,[1644] and the development and management of these reserves. It is also involved in the exploration of oil and gas in selected basins around the world,[1645] especially in Africa.[1646]

According to Clarke, 'on a comparative note, PetroSA is by most measures a sound company, one of the better state oil companies on the continent', and he reckons, 'it is capable of much more'. [1647]

5.8. Socio-economic Challenges

[1644] PetroSA does not only explores and produces oil and gas in South Africa but these activities extends to other African countries such as Sudan, Egypt, Gabon, Namibia, Madagascar, Algeria, Libya, Equatorial Guinea, Angola, Mozambique and Nigeria, and even beyond. See for instance, Clarke n 1307 *supra* at 354; Fabricious P 'PetroSA to Send Technicians to Explore Oil Possibilities in the Sudan' *Business Day Report* 5/1/05; Katsouris C 'Equatorial Guinea to Award Acreage to New Friend South Africa' *International Oil Daily* 07/10/04; Mawson N 'PetroSA Accelerates Exploration, Eyes Gas-to-Liquids Prospects' *Engineering News* 09/06/2006;Reuters 'PetroSA and Angola's Sonangol Eye Oil Joint Venture' *Engineering News* available at http://www.engineeringnews.co.za/article/petrosa-and-angolas-sonangol-eye-oil-joint-venture-2010-10-14 (accessed 07 March 2011); Maletsky C 'PetroSA in Namibian Oil Venture With Russians' *Business News* 06/04/2006 available at http://allafrica.com/stories/200604060509.html; A*frica Energy Intelligence* 08/09/2004 'South Africa/Angola: Oil Bargaining'; Adams P 'PetroSA Looks North for New Oil, Gas Bonanzas' *ThisDay* 08/10/2004; Pringle C 'Venezuela Invited to Invest in PetroSA's New Coega Refinery' *Engineering News* 03/09/2008; and *Club of Mozambique* 28/02/2011 'South Africa Wants More Gas from Mozambique' available at http://www.clubofmozambique.com/solutions1/print_current.php?secao=news&id=21... (accessed 07 March 2011).

[1645] For instance Venezuela and Russia. See Clarke n 1307 *supra* at 354.

[1646] See *the Report of the Public Protector* n 1642 *supra*.

[1647] See Clarke n 1307 *supra* at 356.

The South African oil and gas upstream sector faces a variety of changes including the country's overreliance on coal as a source of energy; non-compliance with the black economic empowerment transformation policy requirements; the perceived threat to direct foreign investment; and the potential negative environmental effects of shale gas fracking.

5.8.1. Over-reliance on Coal as a Source of Energy

One of the greatest challenges that the country faces with respect to energy relates to its over-reliance on coal for electricity generation. The problems range from Eskom's inability to secure sufficient coal, which arises from a conflict between the mining industry's need to exploit lucrative international markets to concerns over the quality and price of coal that is supplied to the energy utility. These two fundamental issues have a great impact on Eskom's ability to meet its electricity generation targets. Eskom therefore has limited capacity to fuel the economic base,[1648] forcing Eskom to seek the introduction of mechanisms, such as price controls, quotas on exports and restrictions on the exports of the types of coal used by Eskom.[1649]

It is submitted that in order to reduce the overreliance on coal as the main source of energy, and in particular for electricity generation, it is imperative that alternative sustainable sources of energy such as natural gas and crude oil are aggressively explored and pursued.

As Kearney argues,

> shifting energy production from "dirty" coal to "less dirty" gas is proving an effective intermediate step for countries to reduce their CO_2 emissions from energy production. South Africa needs to shift its energy production away from coal as a matter of urgency and it may have potentially enormous domestic gas reserves to do so. The gas that is believed to be locked in the shale beds underlying the Karoo could be the "lower carbon"

[1648] See Clarke n 1307 *supra* at 347. See also Naidoo B 'The Future of Coal at a Crossroads' August 2012 *SA Mining* 18 at 20.

[1649] *Ibid*.

> alternative to coal until such time that renewable energy becomes technologically and economically viable as an alternative to all fossil fuels…[t]he only way to determine whether gas resources exist is through exploration with hydraulic fracturing and, if they do indeed exist, expanding hydraulic fracturing to exploit economic gas reserves.[1650]

Although Kearnery acknowledges that exploration for gas cannot be achieved without some harm to the Karoo, he deems it necessary to examine the nature and extent of those harms before being able to defend his claim that they are outweighed by the harms to future generations that would result if South Africa did not go ahead with gas exploration.[1651]

5.8.2. The Transformation Policy: Black Economic Empowerment

Due to the negative impacts of South Africa's previous apartheid policy on the black majority in South Africa, which systematically excluded them from any meaningful participation in the petroleum sector, the new democratic government adopted a policy framework to enforce increased participation by HDSAs. This policy is commonly known as Black Economic Empowerment (BEE). It is similar to the Angolan and the Nigerian local content[1652] law and policy as discussed in the chapters 3 and 4 respectively. The BEE policy is aimed at redressing the racial and gender imbalances that were perpetuated by South Africa's past of institutionalised and systemic apartheid policy, by ensuring that HDSAs, including black people, local communities, and women, are able to enter, and actively participates in, the petroleum industry. To give effect to this policy objective, section 2(d) of the MPRDA expressly provides for the substantial and meaningful expansion of opportunities for HDSAs, including women and local

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[1650] See Kearney RY *The Karoo Hydraulic Fracturing Debate: Accounting for Future Generations* Masters Dissertation submitted in partial fulfillment of the requirements for the degree of Master of Arts, Applied Ethics for Professionals at the University of the Witwatersrand in February 2012 at 33-34.

[1651] *Ibid*.

[1652] See Clark n 1307 *supra* at 347.

communities to enter into and actively participate in the petroleum industry and to benefit from exploitation of the nation's petroleum resources.[1653]

To ensure the attainment of the government's objectives of redressing historical, social and economic inequalities as stated in the Constitution, the Minister of Mineral Resources was required to, within six months from the date on which the MPRDA took effect, develop a broad-based social empowerment charter that would set the framework, targets and timetable for effecting the entry of HDSAs into the petroleum industry, and allow such South Africans to benefit from the exploitation of these resources.[1654] In compliance with this requirement, such charter[1655] and a related 'scorecard' have been developed in August 2004 and were recently revised in September 2010.[1656] The scorecard sets out the requirements of the charter in table form, and provides blocks for 'checking' whether or not a production company has complied with each of the nine elements to which it relates. These compliance areas include ownership,[1657] procurement and enterprise development,[1658] beneficiation,[1659]

[1653] See also s 2 of the MPRD Amendment Act.

[1654] See s 100 of the MPRDA.

[1655] See General Notice No. 1639 of 2004 in Government Gazette No. 26661 of 13 August 2004

[1656] See the Department of Mineral Resources 'Amendment of Broad-Based Socio-economic Charter for the South African Mining and Minerals Industry, September 2010' (hereinafter '*the Amended Mining Charter*') at http://www.dmr.gov.za/publications/summary/108-mining-charter-downloads/128-amendedofbbseecharter.html (accessed 14 March 2013).

[1657] Commitment to achieve a minimum of 26 percent participation by HDSAs by 2014. See clause 2.1 of the *Amended Mining Charter* n 1664 *supra*.

[1658] Commitment to procure at least 4 per cent of capital goods from BEE entities by 2014; ensuring that multinational suppliers of capital goods annually contributes a minimum of 0.5 percent of annual income generated from local mining companies towards the socio-economic conditions of local communities into a social development fund from 2010; procure 70 percent of services and 50 per cent of consumer goods from local BEE entities by 2014. See clause 2.2 of the *Amended Mining Charter* n 1664 *supra*.

employment equity,[1660] human resource development,[1661] mine community,[1662] housing and living conditions,[1663] the sustainable development and growth of the mining industry;[1664] and reporting (monitoring and evaluation).[1665] All applications for production rights in respect of petroleum resource under the custodianship of the state are subject to a minimum of 26 per cent BEE participation.

With particular reference to granting of an exploration right or a production right, the MPRDA provides that the Minister of Mineral Resources must grant such rights if the

[1659] Mining companies may in accordance with s 26 of the MPRDA offset the value of the level of beneficiation by the company against a portion of its HDSA ownership requirements not exceeding 11 percent. See clause 2.3 of *the Amended Mining Charter* n 1664 *supra*.

[1660] Every mining company must achieve a minimum of 40 per cent HDSA demographic representation at all management levels ranging from a junior manager to the executive (board) management by 2014. See clause 2.4 of *the Amended Mining Charter* n 1664 *supra*.

[1661] Mining companies must invest a percentage of their annual payroll in essential skills development activities reflective of demographics with targets ranging from 3 percent in 2010 to 5 per cent in 2014. See clause 2.5 of *the Amended Mining Charter* n 1664 *supra*.

[1662] All stakeholders must consistently adhere to international consultative process when consulting with local communities and mining companies must conduct an assessment to determine the developmental needs in collaboration with communities and identify projects within the needs analysis for their contribution to community development in line with IDPs. See clause 2.6 of *the Amended Mining Charter* n 1664 *supra*.

[1663] Mining companies are required to implement measures to improve the housing and living conditions of mineworkers by converting or upgrading hostels to family units by 2014, attaining the occupancy rate of one person per room by 2014, and facilitating home ownership options for all mine employees in consultation with organised labour by 2014. See clause 2.7 of the *Amended Mining Charter* n 1664 *supra*.

[1664] See clause 2.8 of *the Amended Mining Charter* n 1664 *supra*.

[1665] In accordance with s 28(2)(c) of the MPRDA every mining company must annually report to the DMR on its compliance with the mining charter and the DMR monitor and evaluate taking into account the impact of material constraints that might be causing non-compliance. See clause 2.9 of *the Amended Mining Charter* n 1664 *supra*.

granting of such rights will contribute towards the substantial and meaningful entry and active participation of HDSAs in the petroleum industry as required by section 2(d) of the MPRDA and, in respect of a production right, also towards the objects of Charter contemplated in section 100 of the MPRDA.[1666] BEE participation is therefore an essential requirement for the granting, conversion or transfer of a production right.

However, some concerns have been raised that the empowerment of HDSAs may bring inexperienced players into a highly capital-intensive industry, some leaning on state support and soft funding, with foreign players and 'persuaded' to meet and finance the costs.[1667]

5.8.3. Threat to Foreign Direct Investment

The importance of attracting long term direct investment into South Africa cannot be overemphasised. However as Maas indicates, 'this is rather difficult for high capital intensive and low return projects such as energy generating industries'.[1668]
South Africa's BEE requirements, the Eskom electricity supply crises, perceptions of the regulatory environment as stringent or hostile, and last but not least, increasing levels of corruption further compound adverse investor perceptions. As Clarke indicates some damaging potential of the country's empowerment strategy could be investment withdrawals, or worst of all, lack of new venture commitment.[1669] According to the United Nations Conference on Trade and Development (UNCTAD), 'in general, foreign

[1666] See ss 80(1)(g) and 84(1)(i), read together with ss 2(d) and 100 of the MPRDA.

[1667] See Clarke n 1307 *supra* at 352.

[1668] See Maas n 1341 *supra* at 180.

[1669] See Clarke n 1307 *supr*a at 352; Dale n 1323 *supra* at 834; Leon 'n 1562 *supra* at 629; and Hajzler C 'Resource-based FDI and Expropriation in Developing Economies' University of Otago Economics Discussion Papers No. 1012, September 2010, available http://www.business.otago.ac.nz/econ/research/discussionpapers/DP_1012_revised_Feb2013.pdf (accessed 05 April 2013).

investors tend to understand the need to redress social and economic imbalances in South Africa and are broadly supportive of black economic equity performance requirements. However, investors are cautious of how this is done'.[1670]

Dale suggests that whether or not the MPRDA, will succeed in attracting investment depends on the degree to which it satisfies the internationally identified investment criteria.[1671] According to this author,

> [t]he impact which the new Act [the MPRDA] will have on attraction of foreign and domestic investment …in South Africa is at a watershed stage. It could result in South Africa moving forward along a high [investment] road, if investor perceptions are favourable. It could conversely result in South Africa moving along a low [investment] road, if investor perceptions are unfavourable. There have been considerable efforts to make the Act [the MPRDA] internationally competitive on a comparative law basis. Whether negative perceptions created by the transitional arrangements in so far as existing rights are concerned and by the above-mentioned Charter on broad-based economic empowerment being capable of being overcome will depend on whether South Africa is perceived as having placed the correct emphasis on factors which are perceived internationally as being investor-friendly.[1672]

According to Leon, on the basis of a simple definition of creeping expropriation, there can be little doubt that the post-2004 mineral law reforms in South Africa may be described as the 'slow and incremental encroachment' on 'ownership rights of investors' that has resulted in value attrition to such investments'.[1673] Leon indicates that it is, however, a more complex question to assess whether South Africa's mineral law

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[1670] See *United Nations Conference on Trade and Development* 'Foreign Direct Investment and Performance Requirements: New Evidence from Selected Countries' available at http://unctad.org/en/docs/iteiia20037_en.pdf (accessed 08 April 2013) p 212.

[1671] See Dale n 1323 *supra* at 827.

[1672] See Dale n 1323 *supra* at 850.

[1673] See Leon n 1562 *supra*.

reforms have had an effect equivalent to expropriation, thereby breaching its BIT obligations.[1674]

This question has, however, featured in the International Centre for the Settlement of Investment Disputes (ICISD), [1675] and most recently, in 2013 resulted in a wholesale discontinuation of existing BITs.

The question whether the implementation or the coming into operation of the MPRDA constitutes expropriation in violation of Bilateral Investment Treaties (BITs), however, remained undecided at the ICSDI.[1676] In this first international expropriation claim against the South African government, Marlin Holdings Limited, Marlin Corporation Limited, Finstone Sarl and RED Graniti (Pty) Limited ('the investors'), lodged a request for international arbitration against the South African government with the ICSID on 1 November 2006. The investors' claim was formulated under the South Africa/Italy, and South Africa/Belgo-Luxembourg Economic Union BITs. The quantum of the investors' claim for expropriation and related damages was some €266 million (US$ 380 million)

[1674] *Ibid.*

[1675] See *Piero Foresti, Laura de Carli and Others v The Republic of South Africa* (ICSID Case No. ARB(AF)/07/1) available at http://www.italaw.com/cases/446 (accessed 05 April 2013). The ICSID Convention was concluded in 1965 and it established facilities for conciliation, arbitration and resolution of investment and non-investment disputes between a contracting state and nationals of other states, a national of a non-contracting state with a contracting state; or a non-contracting state with a national of a contracting state. See Prichard R 'Safe Guards for Foreign Investments in Mining' in Bastida *et al* n 35 *supra* at 86. See also https://icsid.worldbank.org/ICSID/FrontServlet?requestType=ICSIDDocRH&actionVal=ContractingStates&ReqFrom=Main (accessed 08 April 2013).

[1676] These are treaties signed by the South African government with the Italian Republic, for the Promotion and Protection of Investments, signed in Rome on 9 June 1997; and the Belgo-Luxembourg Economic Union (on the Reciprocal Promotion and Protection of Investments), signed in Pretoria on 14 August 1998, South Africa signed similar treaties with other countries including Austria, the Czech Republic, Denmark, Finland, France, Germany, Greece, The Netherlands, Spain, Sweden, and the UK. See in this Leon n 1562 *supra* at footnote 5.

In their Request, the investors contended, *inter alia,* that the MPRDA had led to an unlawful expropriation of their investments, as it extinguished the ownership of the investors' South African mineral rights without prompt, adequate and effective compensation; and that the Mining Charter's forced the divestiture of 26 per cent of their investments to HDSAs, as a condition of the conversion of their old order mining rights to new order rights under the MPRDA, constituting a violation of the BITs' requirement that the investors receive 'fair and equitable' treatment.

Before the case could be finalised, the applicants decided to discontinue the proceeding, after the legal counsel representing the South African government had been caught soliciting from them a substantial bribe, and because they felt that eventually they had been adequately compensated by the conversion of several of their 'old order' mining rights on favourable conditions. ICSID granted the application for discontinuation and made a cost order in favour of the Republic of South Africa which turned out substantially lower than what had been applied for. [1677] The merits of this case were therefore never considered.

The discontinuation of the proceedings in the Marlin Finstone and Graniti matter avoided a ruling on the level an international adjudicative authority on whether the MPRDA has let to expropriation of mineral rights. In my view an important opportunity for obtaining clarity and legal certainty on this issue was lost.

[1677] See a notice from the government of South Africa to this effect entitled '*International Arbitration Challenging the Mineral and Petroleum Resources Development Act 2002 Comes to an End as Claimants Withdraw All Claims; Tribunal Orders Claimants to Reimburse zar 3.8 Million of Government's Cost'* available at http://www.dti.gov.za/mediareleases/foresti.pdf (accessed 04 April 2013) p 17. The attempted bribe aspect in this matter is reported in par. 31 of the ICSID Award of 4 August 2010 (Case No ARB(AF)07/1: https://icsid.worldbank.org/ICSID/FrontServlet?requestType=CasesRH&actionVal=showDoc&docId=DC1651_En&caseId=C90 (accessed 4 April 2013).

However, according to Leon-

> although investors in the South African mining industry apparently remain in day-to-day control of their investments, which, facially, have not been 'neutralised', there are strong indications that, as a matter of international investment law, the core of these investments has either been indirectly expropriated or is undergoing a process of creeping expropriation, which is still ongoing. Factors that support this are: the MPRDA's extinction of all privately owned common law mineral rights (most visible in the statutory extinction of all unused old-order rights), the statutory removal of the erstwhile owner's right of control, the replacement of absolute rights of ownership with conditional and time-bound state licences, which cannot be transferred without ministerial consent and are likewise subject to ministerial suspension or cancellation.[1678]

According to the World Bank, a country's good mineral (and petroleum) potential or prospects and its good infrastructure are the primary factors influencing an investor's decision as to whether to invest in a particular country or not. This is followed by a guarantee of mineral rights and fiscal terms.[1679] Issues of ownership and control are also important factors for consideration.[1680] However, this does not necessarily scare investors away. As the World Bank notes, investors (mostly American or Canadian with revenues 'are generally not prepared to work in countries with mandatory local majority participation, either government or private. However, many [investors] see minority local participation and mandatory training of nationals as positive factors'.[1681] In fact the UNCTAD concludes that

> while investments in the natural-resource based industries appear not to have been adversely affected by the increased black ownership targets set in this sector, there are

[1678] See Leon n 1562 *supra* at 630.

[1679] See *the World Bank* 'Strategy for African Mining' *World Bank Technical Paper No 181* available at http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1999/10/21/000178830_98101904142281/Rendered/PDF/multi_page.pdf (accessed 08 April 2013).

[1680] *Ibid*.

[1681] *Ibid*.

limits to what a country can do even in these kinds of activity. When a draft Mining Charter was leaked to the press in August 2002, suggesting that the Government would regulate that 51 percent of the industry should be transferred to domestic black owners, the share prices of major mining houses plummeted and industry leaders reacted strongly. In the end, the Government backed away from the idea of imposing a specific quota for domestic black ownership in the sector.[1682]

5.8.4. The Negative Environmental Impacts of Shale Gas Fracking

One of the biggest challenges in the upstream petroleum sector is shale gas fracking.[1683] As *OpenOil* indicates,

> gas flaring is the disposal by burning of unwanted associate natural gas released from an oil field by burning it. It is widely used where there is no infrastructure to make use of the gas. However it is widely recognized as a waste of energy and as environmentally dangerous in contributing carbon emissions to the atmosphere.[1684]

[1682] See UNCTAD n 1678 *supra* at 213.

[1683] According to Ashton 'fracking is the colloquial compression of the word fracturing. It refers to the method of rupturing rock by forcing high pressure liquid into underground rock formations to liberate and collect otherwise inaccessible pockets of gas. Technically, fracking is the hydraulic fracturing of underground rock formations, mainly shale, which is both readily cracked and contains gas'. (See Ashton G 'Fracking up the Karoo' *The South African Civil Society Information Service*, available http://sacsis.org.za/site/article/634.1 (accessed 03 October 2012)); while Spath indicates that 'Fracking involves injecting pressurised water mixed with sand and a cocktail of chemicals into boreholes to crack open the impermeable shale and allow the gas to escape to the surface. See Spath A 'Fracking up the Karoo' in *Information on South Africa's Fracking Proposals in the Karoo Basins: Media and Other Sources* at 33 available at http://www.bctwa.org/Frk-SouthAfrica-Articles.pdf (accessed 10 November 2012).

[1684] See *OpenOil* 'Syria Oil Almanac' at p 17, available at http://www.openoil.net (accessed 06 May 2013).

The definition of 'petroleum' in the MPRDA does not include unconventional shale gas[1685] that has to be subjected to an artificial fracturing process before becoming a liquid, solid, hydrocarbon or combustible gas. It is therefore important to examine the effects of shale gas fracking in terms of environmental laws.[1686] The relevance of the issue is evident because the Department of Mineral Resources has granted permits to

[1685] According to Kearney '"Unconventional gas", also known as "tight gas", is that which is trapped in rock, in this case dense sedimentary shales formed from deposits of mud, clay and organic material. He also indicates that 'extensive shale-gas reserves are believed to underlie the Karoo'. See Kearney n 1658 *supra* at 2. It is important to note that, with estimated 485 Tcf in technically recoverable shale gas resources (Department of Mineral Resources: 'Investigation of Hydraulic Fracturing in the Karoo Basin of South Africa' 2, available at http://www.info.gov.za/view/DownloadFileAction?id=174015 (accessed 05 October 2012)), South Africa's said to rate number 5 in the world (after China, USA, Argentina, Europe and Mexico) in terms of its shale gas resources. See Robin Beckwith 'Shale Gas: Promising Prospects Worldwide' available at http://www.spe.org/jpt/print/archives/2011/07/11SpecialSection.pdf (accessed 04 October 2012) at 37. See also the *Department of Mineral Resources' Report on Investigation of Hydraulic Fracturing in the Karoo Basin of South Africa* at 24 available at http://www.dmr.gov.za/publications/finish/182-report-on-hydraulic-fracturing/853-full-report-on-investigation-of-hydraulic-fracturing-in-the-karoo-basin-of-south-africa-18-september-2012/0.html (accessed 30 August 2012).

[1686] In terms of s 1 of the MPRDA 'petroleum' refers to 'any liquid, solid, hydrocarbon or combustible gas, existing in a natural condition in the Earth's crust'. Technically, as Light correctly argues, 'Shale gas fracking therefore does not legally qualify as the subject matter for an exploration right in terms of section 79 of the MPRDA'. Light is quoted by Heather D 'Fracking Plan Fatally Flawed' *Cape Times* April 4, 2011. See also the *Department of Mineral Resources' Report on Investigation of Hydraulic Fracturing in the Karoo Basin of South Africa* n 1693 *supra* at 21. Except the MPRDA, there is therefore currently no specific legislation on shale gas exploration in South Africa.

five major companies and consortia to assess the country's unproven but potential shale gas reserves.[1687]

In opposition to Shell's[1688] controversial proposal to explore 90 000 square Km of the south western Karoo Basin (an ecologically sensitive region with rare species such as the mountain zebra and riverine rabbit, and valuable farmland), farmers, landowners and community members in the Karoo are reported to be increasingly worried about a massive search for shale gas on their land.[1689] According to the legal counsel representing these parties,

> available information on fracking indicates that it is a highly invasive process with a high risk of contamination of the environment and, in particular to underground water and air, it necessitates the use of large volumes of water for the drilling process and substantial quantities of water in the fracking process….It also involves the use of sand and highly toxic chemicals.[1690]

According to *Greenpeace*,

> shale gas extraction poses a threat to ground and surface water. The fracking process brings a significant risk of contamination of these valuable water resources. This pollution

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[1687] These companies include Royal Dutch Shell, Falcon Oil & Gas, Anglo American, Bundu Gas and Oil. A joint venture between Sasol, Statoil of Norway and Chesapeake Energy of the USA are assessing a huge area extending from Worchester to Port Elizabeth and from the Free State to KwaZulu-Natal. See Spath n 1691 *supra*.

[1688] Shell Exploration Company B.V., a registered company of Royal Dutch Shell plc (Shell).

[1689] See Spath n 1691 *supra*. See also Kearney n 1658 *supra* at 35; Lorens C 'South Africa Targets Shale Gas to Reduce Oil Imports' in *Information on South Africa's Fracking Proposals in the Karoo Basins: Media and Other Sources* n 1691 *supra* at 36; Wendell R 'South Africa Farmers Oppose Shell's Shale Gas Plans' *Information on South Africa's Fracking Proposals in the Karoo Basins: Media and Other Sources* n 1691 *supra* at 45; *Mail & Guardian Online* March 21, 2011 'Karoo Residents to Block Shale-Gas Bid' *Information on South Africa's Fracking Proposals in the Karoo Basins: Media and Other Sources* n 1691 *supra* at 74.

[1690] As quoted in *Business Report* on 24 February 2011. See also *Information on South Africa's Fracking Proposals in the Karoo Basins: Media and Other Sources* n 1691 *supra* at 59.

> can affect drinking water, as well as rivers and wetlands, threatening human health and the environment. Secondly, fracking uses huge volumes of water. Given that many parts of South Africa already experienced water shortages, the prospect of further stressing water supplies could pose serious problems at a local and regional level. Can we really afford to waste vast amounts of water in a water scarce area such as the Karoo?[1691]

The use of hydraulic fracturing in shale gas exploration is therefore generally perceived to have the negative environmental impact of polluting sources of drinking water by fracturing fluids and/or methane, and induced seismic events. In the Karoo, there is an additional risk that the high volumes of the relatively scarce water required for the project might significantly compromise the use thereof for other purposes such as farming.[1692] In a large part of the area, it is said that there is a further geological risk entailed by the presence of extensive intrusions of dolerite and kimberlite.[1693]

Concerned about the process of hydraulic fracturing, ('fracking') which uses immense amounts of water, and which has the potential to contaminate water with pollutants, the South African opposition party in parliament, the Democratic Alliance (DA), has called upon the state to impose a moratorium on gas fracking in the Karoo.[1694] According to the DA, there should be a moratorium on any exploration or mining activity that involves 'fracking'.[1695] Pursuant to this call for a moratorium, on 21 April 2011, South Africa's cabinet placed a moratorium on oil and gas exploration licenses in the Karoo region. In a

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[1691] See *Greenpeace* March 9 2011'Say 'No' to Fracking in the Karoo: *There is still time to stop Shell'* also available in *Information on South Africa's Fracking Proposals in the Karoo Basins: Media and Other Sources* n 1691 *supra* at 69.

[1692] See *the Department of Mineral Resources* n 1693 *supra* at 5-6.

[1693] *Ibid*.

[1694] See Morgan G 'Gas Exploration in the Karoo: DA Wants Moratorium on "Fracking"' in *Information on South Africa's Fracking Proposals in the Karoo Basins: Media and Other Sources* n 1691 *supra* at 43. Morgan is the DA's current shadow Minister of Water and Environmental Affairs in the South African Parliament.

[1695] *Ibid*.

government statement, it was said that 'cabinet has endorsed the decision by the department of minerals to invoke a moratorium on licenses in the Karoo, where fracking (*sic*) is proposed'.[1696] Although no deadline for the moratorium's end was given, it implied that all drilling applications in the Karoo, including those already submitted, will, according to the statement, not be approved 'until the research is carried out, concluded, and pronounced on'. However, on 7 September 2012, this moratorium which lasted only for some months was lifted.[1697]

Although he defends and encourages hydraulic fracturing of shale gas in the Karoo, Kearney acknowledges the controversial negative environmental effects of this project as follows:

[1696] See the *South African Government News Agency* at http://www.buanews.gov.za/rss/11/11042113151001 (accessed 04 October 2012).

[1697] See in this regard Bega S 'SA Split as Moratorium Dropped' *Business Report* 08 September 2012; *Times Live* 07 September 2012 'Fracking Possible as Moratorium on Shale Gas Exploration Lifted'; *and Daily Maverick* 11 September 2012 'Fracking Gets Green Light, but here's the Risk'. This is different from other countries in which gas fracking moratoriums have been approved. For instance, in France the country's National Assembly has voted in favor of a ban on fracturing. The relevant Bill now needs to be approved by the Senate. If the Bill is approved, it will revoke the permits of companies carrying out fracturing there, although it does not outlaw the extraction of shale gas itself. See John Sheehan 'Europe Gears Up for the Shale Gale' available at http://www.spe.org/jpt/print/archives/2011/07/11SpecialSection.pdf (accessed 04 October 2012) p 35. In the USA several states have placed moratorium on fracking. For instance, the New York State placed a moratorium on hydraulic fracturing in December 2010; the state of Maryland placed a moratorium on drilling in March 2011 until the Department of the Environment completes a two-year study on the impacts on drinking water and public health; and the state of New Jersey declared itself 'a no fracking' zone in March 2011. See in this regard, Havemann L *et al* 'A Critical Review of the Application for a Karoo Gas exploration Right by Shell Exploration Company BV' available at www.golder.com/af/en/modules.php?name...op...sp (accessed 04 October 2012).

> [t]he most controversial aspects of the hydraulic fracturing process are twofold, both having to do with the scarce water resources of the arid and semi-arid Karoo biome. First is the amount of water required per borehole (between 300 000 litres and 6 million litres). The second issue is the potential contamination of underground aquifers as a result of leakages inside the boreholes of the chemicals used in the fracturing process to open the fractures or of the target hydrocarbons (if present), or by the seepage of chemically-tainted waste water from surface. Because the Karoo's water is so limited and, thus, particularly precious to its various inhabitants, these are reasonable grounds for concern.[1698]

He summarises the environmental fears relating to shale gas fracking as follows:

> [t]here are fears that this chemically-tainted waste water, or methane and other hydrocarbons intersected by drilling, could contaminate underground aquifers via the wells themselves, i.e. the boreholes are not properly sealed and allow leakage into the groundwater. Secondly, the waste water must be transported somewhere for treatment and/or disposal and, if not properly contained, could seep into groundwater from the surface.[1699]

[1698] See Kearney n 1658 *supra* at 6. He argues that 'shifting energy production from "dirty" coal to "less dirty" gas is proving an effective intermediate step for countries to reduce their CO2 emissions from energy production. South Africa needs to shift its energy production away from coal as a matter of urgency and it may have potentially enormous domestic gas reserves to do so. The gas that is believed to be locked in the shale beds underlying the Karoo could be the "lower carbon" alternative to coal until such time that renewable energy becomes technologically and economically viable as an alternative to all fossil fuels…[t]he only way to determine whether gas resources exist is through exploration with hydraulic fracturing and, if they do indeed exist, expanding hydraulic fracturing to exploit economic gas reserves'. Although he acknowledges that as exploration for gas cannot be achieved without some harm to the Karoo, he deems it necessary to examine the nature and extent of those harms before being able to defend his claim that they are outweighed by the harms to future generations that would result if South Africa did not go ahead with gas exploration. See Kearney n 1658 *supra* 293 at 33-34.

[1699] See Kearney n 1658 *supra* at 36.

Kearney indicates that 'another environmental concern is the impact of the checkerboard of drill sites and associated infrastructure (i.e. roads) on the Karoo's fragile flora and soil which could be devastating'.[1700]

5.8.4.1. The Legal Framework for Environment

The legal framework for environmental management in the context of petroleum exploration, development and production includes the Constitution,[1701] the N EMA,[1702] the MPRDA,[1703] the NWA[1704] and the Waste Act.[1705]

5.8.4.1.1. The Constitution

Section 24 of the 1996 Constitution of the Republic of South Africa provides that everyone has the right to an environment that is not harmful to their health or well-being; and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development. The South African judiciary has on a number of occasions dealt with this right.

Of particular relevance to shale gas fracking are excerpts on the environmental right and the nature of sustainable development from some of South Africa's highest courts, including the Constitutional Court. In *Director: Mineral Development, Gauteng Region*

[1700] See Kearney n 1658 *supra* at 37.

[1701] The Constitution of the Republic of South Africa, 1996.

[1702] See n 1311 *supra*.

[1703] See n 37 *supra*.

[1704] See n 1311 *supra*.

[1705] See n 1311 *supra*.

and Sasol Mining (Pty) Ltd v Save the Vaal Environment and Others, the Supreme Court of Appeal stated:

> our Constitution, by including environmental rights as fundamental justiciable human rights, by necessary implication requires that environmental considerations be accorded appropriate recognition and respect in the administrative process in our country. Together with the change in our ideological climate must come a change in our legal and administrative approach to environmental concerns.[1706]

In *BP Southern Africa (Pty) Ltd v MEC for Agriculture, Conservation and Land Affairs*,[1707] it was held that:

> sustainable development constitutes an integral part of modern international law and will balance the competing demands of development and environmental protection. The concept of sustainable development 'is the fundamental building block around which environmental legal norms have been fashioned, both internationally and in South Africa…pure economic principles will no longer determine, in an unbridled fashion, whether a development is acceptable. Development, which may be regarded as economically and financially sound, will, in future, be balanced by its environmental impact, taking coherent cognisance of the principle of intergenerational equity and sustainable use of resources in order to arrive at an integrated management of the environment, sustainable development and socio-economic concerns. By elevating the environment to a fundamental justiciable human right, South Africa has irreversibly embarked on a road, which will lead to the goal of attaining a protected environment by an integrated approach, which takes into consideration, inter alia, socio-economic concerns and principles.

In *Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province and Others*[1708] *the* Constitutional Court (per Ngobo J) stated that:

[1706] 1999 (2) SA 709 (SCA*)* at para 20.

[1707] 2004(5) SA 124 WLD at para 144A-114D.

[1708] See the *Fuel Retailers Association of Southern Africa* case n 228 *supra* at para 45.

> NEMA, which was enacted to give effect to section 24 of the Constitution, embraces the concept of sustainable development. Sustainable development is defined to mean —the integration of social, economic and environmental factors into planning, implementation and decision-making for the benefit of present and future generations||. This broad definition of sustainable development incorporates two of the internationally recognised elements of the concept of sustainable development, namely, the principle of integration of environmental protection and socio-economic development, and the principle of inter-generational and intra-generational equity. In addition, NEMA sets out some of the factors that are relevant to decisions on sustainable development. These factors largely reflect international experience. But as NEMA makes it clear, these factors are not exhaustive.

Ngcobo J then went on to observe:

> [t]he Constitution recognises the interrelationship between the environment and development; indeed it recognises the need for the protection of the environment while at the same time it recognises the need for social and economic development. It contemplates the integration of environmental protection and socio-economic development. It envisages that environmental considerations will be balanced with socio-economic considerations through the ideal of sustainable development. This is apparent from section 24(b)(iii) which provides that the environment will be protected by securing —ecologically sustainable development and use of natural resources while promoting justifiable economic and social development. Sustainable development and sustainable use and exploitation of natural resources are at the core of the protection of the environment.[1709]

The environmental concern relating to shale gas fracking in South Africa is that although there is an obligation of any applicant for petroleum exploration and production to submit a thorough legal environmental management plan (EMP) in terms of section 39 of the MPRDA[1710] and its Regulations, South Africa does not have a specific law dedicated to

[1709] See the *Fuel Retailers Association of Southern Africa* case n 228 *supra* at para 50.

[1710] Section 39 of the MPRDA provides that any person who applies for an exploration or production right must conduct an environmental impact assessment and/or submit an

gas fracking.[1711] There is of course legislation which relates to environmental management. These include MPRDA,[1712] NEMA,[1713] the NWA,[1714] and the Waste Act.[1715]

5.8.4.1.2. The National Environmental Management Act

NEMA establishes a general framework for environmental regulation by, *inter alia*, prescribing national environmental management principles that must be applied by state institutions (including the DMR and PASA) when making decisions that may have a significant impact on the environment such as granting technical co-operative permits, exploration rights, and production rights. It provides a framework and principles for sustainable development and sets national norms and standards for integrated environmental management[1716] where all spheres of government and all organs of state

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environmental management programme. Such a right becomes valid only on approval of the associated environmental management programme.

[1711] Although s 24(b)(iii) of the Constitution of South Africa, 1996, the MPRDA and its Regulations and the NEMA (n 1311 *supra*) ; the NWA (n 1311 *supra*); do have an impact on environmental regulation relating upstream petroleum activities, these are generic pieces of legislation which do not deal directly or indirectly with the issue of shale gas fracking. For instance, the EIA Regulations GN R543 under the NEMA set out a list of identified activities that may not commence without environmental authorisation from the competent authority. Therefore should an upstream oil and gas exploration and exploitation project include activities listed under GN R544, GN R545 and GN R546, the Environment Impact Assessment (EIA) procedure as provided for in Regulations 27 to 36 of the NEMA EIA Regulations GN R543 will have to be adhered to.

[1712] See n 1265 *supra*.

[1713] See n 1270 *supr*a.

[1714] See n 1270 *supra*.

[1715] See n 1270 *supra*.

[1716] See section 24 of NEMA. For South African case law on sustainable development, see also *Director: Mineral Development* (n 1663 *supra*), *BP Southern Africa* (n 1675 *supra*), and most importantly, *Fuel Retailers Association of Southern Africa* (n 228 *supra*) in which the

Constitutional Court at para 46 'reaffirm[ed] that sustainable development is a world priority'. For a critique of the *Fuel Retailers Association of Southern Africa* case, see Feris L 'Sustainable Development In Practice*: Fuel Retailers Association of Southern Africa v Director-General Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province'* (2008) 1 *Constitutional Court Review* 235, who argues that the *Fuel Retailers* judgment failed to interrogate the normative nature of sustainable development comprehensively and in the process provided us with an inherently flawed and incomplete application of the concept; and Tladi's response 'Fuel Retailers, Sustainable Development & Integration: A Response to Feris' (2008) *Constitutional Court Review* 255. In this response, Tladi criticise *Fuel Retailers* judgment on the basis of the fact that although the court's approach to conduct a historical survey of sustainable development is correct (albeit with some factual errors), this approach becomes flawed in the sense that it fails to explain how this historical evolution influences the conceptualisation of sustainable development throughout its majority judgment. He also criticises the court for 'lumping these concepts [social development, economic development, socio-economic development and environmental protection] together. In doing so, he argues, the Court misses an opportunity to develop a sound understanding of sustainable development. According to him the result of treating these concepts as interchangeable is that the Court never stops to ask whether the factors that the Fuel Retailers Association requested that the environmental authorities consider are socio-economic or purely economic. He contends that to use language from the common definition of sustainable development, the Court does not ask whether these factors are social or economic. He argues that the Court's judgment implies — incorrectly — that economic considerations are the same as social considerations'. He further criticises Feris for similarly conflating social and economic considerations in her' analysis of the *Fuel Retailers* case (above). See also Tladi n 229 *supra* at 240, in which he suggests 'a nuanced conceptualisation of sustainable development', under which there are three variations of sustainable development based on the process of integrating three values of development, namely, economic growth, social concerns, and environmental protection. According to him, in the economic growth-centred variation, economic growth takes centre stage, whilst in the environment centred variation, the natural environment triumphs. Finally in the human needs-centred (or social needs centred) variation, the social needs of humans are placed at the forefront. He argues that such a variation approach allows decision-makers to decide which variation best serves the aims of sustainable development.

must co-operate, consult and support one another.[1717] Section 2(1) of NEMA provides that the principles set out therein apply throughout the Republic to the actions of state that may significantly affect the environment. Section 28 of NEMA also imposes a duty of care and remediation of environmental damage on any person who causes, has caused or may cause significant pollution or degradation of the environment.

5.8.4.1.3. The MPRDA

In the context of petroleum exploration and production, section 37 of the MPRDA, confirms the adoption of the principles for sustainable development as set out in section 2 of NEMA and confirmed in *Director: Mineral Development*,[1718] *BP Southern Africa*,[1719] and *Fuel Retailers Association of Southern Africa*[1720] cases, as well as other generally accepted principles of sustainable development by integrating social, economic, and environmental factors into the exploration, development, and production of petroleum resources. Section 38 of the MPRDA provides for the application of integrated

[1717] See Swart E 'The South African Legislative Framework for Mine Closure' (October 2003) *The Journal of the South African Institute of Mining and Metallurgy* 489 at 491.

[1718]See n 1663 *supra* at para 20, wherein it was held that '…on the contrary, the application of the [*audi alteram paterm*] rule is indicated by virtue of the enormous damage mining can do to the environment and ecological systems. What has to be ensured when application is made for the issuing of a mining licence is that development which meets present needs will take place without compromising the ability of future generations to meet their own needs (the criterion proposed in the Brundtland Report: World Commission on Environment and Development, Our Common Future, Oxford University Press 1987)'.

[1719] See n 1675 *supra* at paras 143C-D, in which the court held that ecologically sustainable development and the use of natural resources must be promoted jointly with justifiable economic and social development.

[1720] See n 228 *supra* at para 39 wherein Ngcobo J identified the issue as one that concerns the 'nature and scope of the obligations of environmental authorities when they make decisions that may have a substantial detrimental impact on the environment'; and, in particular, 'the interaction between social and economic development and the protection of the environment'.

environmental management and the responsibility to remedy environmental damage. In terms of section 38(2) directors of companies or members of closed corporations are liable for any damage, degradation or pollution caused by the company or closed corporation which they represent or represented. Section 39 of the MPRDA provides that any person who applies for an exploration or production right must conduct an EIA and/or submit an environmental management programme (EMP). Such a right becomes valid only on approval of the associated EMP. The MPRD Amendment Act also provides that no person may conduct technical co-operation operations, reconnaissance operations, explore for and produce any petroleum or commence with any work incidental thereto on any area without an environmental authorisation.[1721] Section 40 of the MPRDA makes provision for consultation in decision-making between all organs of state in the on national, provincial and local spheres. Should there be any objection by any organ of state, the Regional Mineral Development and Environmental Committee (RMDEC), established in terms of section 58 of the MPRDA and its supporting Regulations, must advise the Minister of Mineral Resources on how to resolve such a dispute. Section 41 makes provision for financial provision for the remediation of environmental damage. The relevant Regulations in this regard prescribe the methods for financial provision and the detailed itemisation of all costs, and therefore the quantum for financial provision. Section 42 makes provision for the management of residue stockpiles and deposits. The Regulations in this regard also adopts the principles of waste management in the Integrated Pollution Control and Waste Management Policy as well as the precautionary approach followed in terms of the NWA. The Regulations also prescribe waste management though out the life cycle of a mine including decommissioning, closure and post closure management of deposits. Section 43 provides for the issuing of a closure certificate by the Minister of Minerals Resources and the transfer of environmental liabilities to a competent person. Section 45 makes provision for the Minister to take urgent remedial action pertaining to environmental degradation and pollution and to recover costs in this regard. Finally,

[1721] See s 5A(a) of the MPRD Amendment Act n 1264 *supra*. In terms of s 1 of this Act, an 'environmental authorisation' has the meaning assigned to it in s 1 of the NEMA.

section 46 provides for the Minister to rehabilitate abandoned and ownerless mines/dumps and to register such sites in the title deeds of land and to transfer the liability for maintaining the rehabilitation work being undertaken to the responsible land owner.

5.8.4.1.4. The National Water Act

The purpose of the NWA is to 'ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled'[1722] taking into account, *inter alia,* the basic human needs of present and future generations, equitable access to water, social and economic development, the public interest, the growing demand for water, ecosystems and biological diversity and international obligations.

5.8.4.1.5. The National Environmental Management: Waste Act

The Waste Act[1723] provides norms and standards for regulating the management of waste by all spheres of government, licensing and control of waste management activities, remediation of contaminated land, compliance and enforcement measures, etc. Waste management activities associated with hydraulic fracturing that may require a waste management license include, but are not limited to, the following:[1724]

(a) storage, including the temporary storage of general and hazardous waste;
(b) re-use, recycling and recovery of general and hazardous waste;
(c) treatment of general and hazardous waste including effluent, waste water or sewage; and
(d) construction of facilities and associated structures and infrastructure.

[1722] See the long title to the NWA n 1265 *supra*. See also Swart n 1725 *supra*.

[1723] See n 1311 *supra*.

[1724] See *Department of Mineral Resources* n 1663 *supra* at 57.

5.8.4.2. Critical Appraisal of the Legislative Framework for Environmental Management

Concerns have been raised that the existing regulatory framework may not be adequate to deal with all the implications of the process of conducting shale gas fracking.[1725]

Even assuming that the requirement of an EMP in terms of the MPRDA is enough to counter the environmental effects of gas flaring, which is in any event not the case, applicant companies do often fail to adequately and properly comply with the requirement. For instance, during the controversial Shell attempt at obtaining an exploration right for gas in the Karoo, an environmental consultant has said that 'in [his] opinion Shell and Golder have not complied with the Mineral and Petroleum Resources Development Act (MPRDA) or with any of regulations of the MPRDA that are required for an exploration right, and which specify what the contents of the EMP should be'.[1726]

There is therefore a suggestion that a comprehensive review of the adequacy of the existing environmental regulatory framework as it applies to oil and gas exploration and production generally, and hydraulic fracturing specifically, be undertaken.[1727]

One of the biggest problems with the regulatory framework for the environment relating to both mining and petroleum exploration and production is the duplication of responsibilities between the DMR and the Department of Environmental Affairs. The MPRDA which is implemented by the DMR competes with NEMA which is a general framework legislation implemented by the Department of Environmental Affairs. This does not only create confusion but also unnecessary layers of bureaucratic constraints, resulting frequently in jurisdictional conflicts between officials of the two departments as

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[1725] *Ibid*.

[1726] See Bekker F quoted with approval by Heathern 1694 *supra*, also available in *Information on South Africa's Fracking Proposals in the Karoo Basins: Media and Other Sources* n 1691 *supra* at 93.

[1727] See the *Department of Mineral Resources* n 1693 *supra* at 58.

to who is the competent authority on a particular environmental issue relating to mineral and petroleum exploitation. As reported in *Legalbrief* on 20 August 2013, the Minister of Mineral Resources has introduced a Bill (the National Environmental Management Laws Amendment Bill [B 26—2013]) which effectively indicates an intention to abandon previous arrangements between the Mineral Resources and Environmental Affairs ministries, proposing to bind the mining ministry to the same environmental regulations as all other industries. According to the proposed Bill seeking to amend NEMA, the Minister of Mineral Resources will retain the power to approve new mining ventures in what has been described as a 'separate but unequal' legal system, which thus far has prevented the Minister of Environmental Affairs from regulating the damaging effects of the mining industry. As *Legalbrief* reported, more than five years ago, the Mineral Resources Department agreed to end years of special treatment for the mining industry and to bring mining under the regulatory authority of the Environment Department. However and according to proposed Bill, the mining ministry continued to control the environmental impact assessment process and gave approvals to mining companies. The role of the Environment Affairs Minister continued to be limited to act as an appeals authority in the environmental impact assessment process.

5.8.5. Corruption

As Clarke correctly indicates, in South Africa-

> corruption is widely reported and perceived to be on the rise, despite some official efforts to discourage it. The country's growth rate is way below its real potential and social problems have been augmenting. This will affect upstream players less than the more heavily capitalised and onshore downstream players.[1728]

In fact South Africa has been ranked 69 of 176 countries in Transparency International's corruption perception index 2012, which was released on the 5th of December 2012.[1729]

[1728] See Clarke n 1307 *supra* at 352.

[1729] See http://www.transparency.org/cpi2012/results; http://www.timeslive.co.za/local/2012/12/05/sa-public-sector-69th-most-corrupt-in-the-world-index (accessed 11 December 2012).;

It is important in this context to remember that the Transparency International index reflects industry perceptions, and is not an indicator of factual information. The issue of perception of corruption in South Africa was most negatively influenced and nourished by the so-called 'Oilgate' disclosures in 2005.

On 20 May 2005 the weekly newspaper, *Mail & Guardian* ('*M&G*') published an article under the heading 'The ANC's Oilgate'. In the opening paragraphs of the article it was written:

> a *Mail and Guardian* investigation into covert party funding has revealed how R11-million of public money was diverted to African National Congress coffers ahead of the 2004 election. In what may be the biggest political funding scandal since 1994 the M&G has established that South Africa's state oil company, PetroSA, irregularly paid R15-million to Imvume Management – a company closely tied to the ANC – at a time when the party was desperate for funds to fight elections. The *M&G* possesses bank statements and has seen other forensic evidence proving that Imvume transferred the lion's share of this to the ANC within days. PetroSA this week said it was unaware of this. The ANC denied impropriety and said it was not obliged to discuss its funders.

In a follow up series on this story, on 10 June 2005 the *M&G* published another article written under the heading 'The Scandal Spreads'. In the opening paragraphs of this article it was written:

> [w]hen Sandi Majali wrote cheques after getting a multimillion-rand advance from the state oil company, two of the first recipients were relatives of Cabinet members. The ministers – Phumzile Mlambo-Ngcuka of Minerals and Energy and Zola Skweyiya of Social Development – regulate fields in which Majali's companies operated.

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http://www.ey.com/Publication/vwLUAssets/2012_TI_CPI/$FILE/2012%20TI%20CPI.pdf (accessed 08 April 2013); and http://www.sowetanlive.co.za/news/2012/12/05/sa-public-sector-69th-most-corrupt (accessed 08 April 2013).

On 3 June 2005 a member of the National Assembly (NA) for the Freedom Front Plus (FF+), Willie Spies, asked the Public Protector to investigate the information that had been disclosed in the two articles.

In its edition published on 25 June 2005 *the M&G* published two more articles as part of what it called 'Oilgate: A special report'. One article was headed 'An ANC front' and once again in its opening paragraph it was reported that:

> [t]he African National Congress has misled the nation on the Oilgate scandal. Documents in the possession of the *Mail & Guardian* make it clear that Imvume Management – the company that channelled R11-million in state oil money to the ANC before the 2004 election – was effectively a front for the ruling party.

A second longer article was published under the heading 'Trading principle for profit. How the ANC hawked foreign policy for oil'. In its opening paragraph it was reported that:

> [t]his is the story of how South Africa's ruling party offered solidarity to Saddam Hussein in exchange for crude oil – and how state resources were used to help the party in this ambitious fundraising project. Two years of effort resulted in little, if any, financial gain for the African National Congress. But the story is important for it reveals not only how the party subordinated principle to profit, but also how it engaged in business through what was effectively a front company.

The publication of the articles prompted the then leader of the official opposition party in parliament (the DA), Tony Leon, on 18 and again on 22 July 2005, to ask the Public Protector to expand his enquiry to include the state's involvement with Imvume.[1730]

[1730] In a letter that was written on 18 July 2005 the request was made as follows: 'Request for broadening of investigation into "Oilgate" to include the state's involvement with Imvume.

I am approaching your office with the specific request that… your office broadens its existing inquiry into the so-called "Oilgate affair" (public funds are alleged to have been deliberately channeled to the ruling party through a BEE company, Imvume) by determining the extent to

On 22 July 2005 *the M&G* published another article related to a tender that had been awarded to Imvume by SFF. The headings were 'Oilgate: The next instalment' and 'R1bn tender was "fixed."' In the opening paragraph of this article it was reported:

> 'A R1-billion crude oil tender – one of South Africa's largest ever – went to African National Congress-linked company Imvume Management after an extraordinary series of interventions that suggest the tender was rigged.
>
> This emerges from a *Mail & Guardian* investigation of the 2001/02 tender process, which resulted in Imvume supplying the Strategic Fuel Fund Association (SFF) with four billion [sic] barrels of Iraqi oil. The SFF was the state agency that managed the country's strategic stocks.'

After investigation the Public Protector issued a report.[1731] A considerable part of the report is dedicated to an analysis of what conduct fell within and what conduct fell outside the Public Protector's investigatory mandate. The mandate of the Public Protector is, in general, confined to investigating the conduct of public bodies and

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which the state was involved in funding and supporting Imvume's Iraqi oil ventures and travel related thereto.

…..

In light of the above, the extent of the state's involvement in funding and assisting Imvume's oil ventures in Iraq are relevant to a full exploration of the Oilgate affair.'

In the 22 July letter, Mr. Leon requested the investigation by the Public Protector to be broadened further as follows:

'Further to my correspondence with you on 18 July 2005 regarding the "Oilgate affair", I am approaching the Office of the Public Protector requesting that the Office further broadens its existing inquiry to include the role played by the Strategic Fuel Fund (SFF) in a tender process for Iraqi crude oil in 2001-2002 in which the bid of Imvume Investment Holdings (Pty) Ltd was selected in apparent violation of the law.'

[1731] See n 1642 *supra*.

functionaries. In this report the Public Protector concluded that Imvume and the ANC were not public bodies, and had not been performing a public function.

The finding of the Public Protector in the 'Oilgate' affair subsequently became the issue in an interesting court case. In *the Public Protector v Mail & Guardian Ltd,* Nugent JA held that in addition to public bodies and functionaries, the Public Protector may also investigate the conduct of other bodies and persons in specified circumstances.[1732] The court rejected the Public Protector's view that once [public] money comes into the hands of a private body (Imvume), it ceases to be 'public money' and thus falls outside of its investigatory jurisdiction.[1733] Nugent JA noted that this case was concerned with the propriety of money and its conversion from public money into private money. He held that the conversion of public money into private money occurs through a bilateral transaction of payment and receipt and the legislation envisaged that both sides of that bilateral transaction of conversion must be investigated.[1734] As he puts it, 'to improperly pay public money, and to improperly receive public money, each seems to me to be quintessentially an "improper … act … with respect to public money"'.[1735] He continued;

> If the conduct of the receiver of the money was indeed beyond the mandate of the Public Protector, that did not make the receiver immune from furnishing information relevant to an investigation of the conduct of the payer. To erect a wall between payment and receipt, and investigate only part of the transaction, which is what the Public Protector did, was wholly artificial. Indeed, the artificiality of the wall is demonstrated by the manner in which the investigation was conducted.[1736]

Setting aside the report of the public protector which, among others found that: 'the approval and authorization by PetroSA of an advance payment of R15-million to Imvume was lawful, well-founded and properly considered in terms of the legal vehicle and policy

[1732] See n 1642 *supra* at para 92.

[1733] *Ibid*.

[1734] See n 1642 *supra* at para 95.

[1735] *Ibid*.

[1736] See n 1642 *supra* at para 97.

prescripts that applied to PetroSA; and that the decision to approve Imvume's request, as it was presented to PetroSA, for an advance was not unreasonable under the prevailing circumstances and did not amount to maladministration, abuse of power or the receipt of any unlawful or improper advantage; the SCA confirmed the finding by the North Gauteng High Court[1737] that there was no proper investigation.[1738] Although it was accepted that once this finding is made, it should be followed by an order directing the Public Protector to conduct a fresh investigation,[1739] the SCA did not-

> …think that a court should make [such] an order, thereby exposing the litigant to the penalties for contempt if it is not obeyed, unless the order is clear and unambiguous as to what is required. There was no suggestion on behalf of the Public Protector that the investigation will not be opened afresh and the views expressed by Adv. Mushwana himself of the enormity and importance of the matter give every reason to think that that will indeed occur. It is not open to us [the SCA] to supplant the Public Protector by directing with precision what is required for a proper investigation. That will inevitably be dictated by the exigencies that might arise. In those circumstances I do not think those orders should stand and the Public Protector must be left to determine what is required in order to fulfil his or her duty.[1740]

On 10 July 2011 *the M&G* reported that new incumbent Public Protector, Adv. Thuli Madonsela has other priorities to investigate and has "not had time" to review the appeal judgment. At the time of writing, it is not yet clear whether a fresh investigation has been done or is still underway.

In the meantime, on 26 April 2013 *the M&G* reported another allegation of corruption against PetroSA. In this front page report titled 'Oilgate 2: R1-billion Scandal Shakes

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[1737] The High Court set the report aside and ordered that the Public Protector reinvestigate the scandal. The Public Protector appealed to the SCA against this decision but the appeal was dismissed.

[1738] See n 1642 *supra* at para 145.

[1739] *Ibid*.

[1740] *Ibid*.

PetroSA', it reported allegation of payments involving kickbacks. It is reported that these covered large unexplained payments to unidentified third parties and questionable spending decisions totalling R1-billion, including among others, R200- million irregular payment during a feeding frenzy, R800-million in potential liability, payment of an extra R162-million for the acquisition of an company with crude oil acreage in Ghana, a staggering R11.4-million 'success fee' to a lawyer, a shocking R19-million cancellation fee of transaction to buy petrol station; and a disturbing R187-million 'success fee' to some fund managers. It was further reported that police were investigating corruption involving these deals and the CEF also conducted its own investigations in this regard.

It must be noted that the amounts involved were actually insignificant in the context of the oil industry and the level of investigation and transparency achieved was remarkable by any international standards. A further and most relevant conclusion is that the allegations and suspicions of improper dealings were not only extensively reported in South Africa's media, but also became the issue in an important good governance case before the courts, thus refuting negative corruption perceptions.

5.9. Envisaged Legal Reforms

On 27 December 2012 the DMR published the Mineral and Petroleum Resources Development Draft Amendment Bill for public comments.[1741] The draft Bill has, among others, as its objects the removal of ambiguities in the MPRDA; the promotion of energy security; the streamlining of administrative processes; and improvement of the regulatory system.[1742]

[1741] See Bill [B 2012] General Notice No. 1066 of 2012 in *Government Gazette* No. 36037 of 27 December 2012.

[1742] See the long title to the Mineral and Petroleum Resources Development Draft Amendment Bill n 1749 *supra*.

One of the provisions amended is section 9, read together with section 69, of the MPRDA, which provides for the 'first-come, first-served'[1743] principle. The 'first-come-first-serve' principle is sought to be replaced with a provision empowering the Minister to invite, by notice in a *Government Gazette*, applications for, among other, exploration rights and production rights in respect of any area of land or block or blocks. The Minister is further empowered to prescribe, in such a notice, the period within which applications may be made and the terms and conditions subject to which such rights may be granted.

This proposed amendment has the effect of fundamentally changing the first-come, first-serve principle and replacing it with granting of rights on invitation and based on the discretion of the Minister. On face value, this could be seen heralding an approach by the DMR whereby applications can no longer be made for exploration and production rights (and prospecting and mining rights) on an *adhoc* basis, but upon an invitation by the Minister. However, even with respect to solid minerals this does not seem to be the case because the *adhoc* applications will not be abolished. The proposed amendment merely adds the application upon invitation feature to the existing *adhoc* application. This could arguably be the case in respect of solid minerals but not petroleum. The granting of rights on application upon invitation by the Minister has always been, and still is, a feature of the MPRDA in terms of section 73. The only change is that application should be lodged with the Regional Manager of the provincial region of the DMR rather than the designated agency (PASA), as it is currently the case.

However, the abolishing of the first-come, first-served principle is arguably a bad idea. The first-come, first-served approach to the grant of petroleum rights was meant to attract a wide range of applicants including junior companies, local companies and investors, as well as major international oil companies.[1744] As Williams indicates, by maximizing exposure of the country's resources to the widest range of prospective investors, the model [the first-come, first-serve approach] maximizes the prospect for

[1743] See 5.6.4 above.

[1744] See Williams n 1600 *supra* at 749.

attracting private investment into the country's …[petroleum] sector'.[1745] The first-come, and first-served' approach is also fair as it considered nothing at this stage other than the date at which the application was received and this is merely a question of fact which easily and certainly ascertainable. The 'first-come, first-served' is thus more transparent than the proposed ministerial discretion method.

Another important proposed amendment relates to beneficiation. Section 26 of the MPRDA is proposed to be amended to the effect that the Minister is entitled to determine the percentage of a unrefined petroleum resource, such as oil or shale gas, and the price in respect of such percentage of unrefined petroleum as may be required for local beneficiation or value addition, in line with the national development imperatives.[1746]

A more drastic change proposed by the draft amendment Bill is the disbanding of the designated agency (PASA) as provided for in section 70 of the MPRDA. Section 70 of the MPRDA is sought to be amended to the effect that applications for (petroleum) exploration rights and production rights are to be processed by the regional managers rather than PASA as is currently the case. Although it does not explicitly states so, the amendment of section 70 of the MPRDA by the draft amendment Bill has the effect of disbanding PASA. In fact sections 70 and 71 are sought to be amended to the effect that all the functions that were performed by PASA are effectively transferred to the regional manager. This could be problematic in the sense that the regional managers are not technically well vested with petroleum issues as they are traditionally dedicated to processing of applications for mineral rights (solid minerals) and not applications for rights to exploit petroleum resources.

Another important proposed amendment relates to cancellation, relinquishment, abandonment, and lapsing of acreage. According to the proposed section 71(2A) of the draft amendment Bill, any acreage that is relinquished or abandoned or any right that is

[1745] *Ibid*.

[1746] See clause 21(c) of the draft Bill which amends s 26 of the MPRDA by inserting subs 2B.

cancelled or has lapsed, will not be available for application until the Minister has invited applications. In other words, no direct *ad hoc* application may be made to the regional manager if the minister does not invite applications with regard to acreage relinquished or abandoned or rights cancelled or lapsed.

In another envisaged amendment, the regional manager is empowered to accept an application for a reconnaissance permit over any part of an area subject to a technical co-operation permit, exploration right or production right on condition that the applicant furnishes written confirmation from the holder of any of those rights giving the regional manager consent to accept and process such an application.

The draft Bill also provides for relinquishment of a portion of an area (to be prescribed in Regulations) in respect of which a technical co-operation permit relates, or in respect of which an application for renewal of an exploration right or production right is made. This is a welcomed proposal and is in accordance with global best practices in the petroleum industry. The rights and duties of a holder of an exploration right are also sought to be expanded to include the duty to notify the minister of any discovery made in the exploration area and to submit an appraisal programme, an EIA, and an environmental authorisation for appraisal operations in terms of NEMA.

Interestingly the draft Bill also seeks to introduce the free carried interest system. According to Leon, this is in accordance with the 'strategic state ownership' objectives of the Bill.[1747] As he explains 'a free-carried interest' refers to the share in the annual profits derived from the exercise of an exploration right or production right, without the state being expected to make any contribution towards capital expenditure'.[1748] Sections 80 and 84 of the MPRDA are sought to be amended to the effect that the state shall have a right to a 'free carried interest' in all new exploration rights and production rights, with an option to acquire a further interest on specified terms through a designated state

[1747] See Leon P 'Marikana, Mangaung and the Future of the South African Mining Industry' 31(2) (2013) *JENRL* 171 at 200.

[1748] *Ibid*.

organ or state owned entity to be determined by the minister in *a Government Gazette*. In respect of a production right, it is envisaged that the state shall upon exercising such an option be issued with special shares which shall carry the right to appoint up to two directors to the management board of the production operation, with alternates, and shall receive all dividends or other distributions in respect of the further interest percentage. Leon criticises these provisions for being vague and lacking detail as to how large the state's free carry share will be; whether it will be determined on gross or net profit; how the extend of the free carried interest will be determined; and whether it will be imposed on a case-by case basis or as a standard industry practice.[1749] He reckons this vagueness potentially violate the rule of law for lack of clarity and precision and has the potential of seriously deterring new investment in the sector.[1750] Although the author agrees with the concerns on the vagueness of these provisions, he nevertheless thinks that they are necessary for the protection of these resources from unscrupulous mining companies as they ensure that the state actively participates in the exploitation of the nation's natural resources. It is also important to note that free carried-interest provisions are not unique to South Africa. [1751]

5.10. Conclusion

In this chapter it has been demonstrated that although South Africa has followed a general legislative system for oil and gas regulation in the upstream sector, and a concessionary rather than contractual fiscal system, the system is unique due to South Africa's history of apartheid and the limited petroleum resources in the country. Several unique features were outlined including the broad based socio-economic empowerment,

[1749] *Ibid*.

[1750] *Ibid*.

[1751] For instance, Ghana's Minerals and Mining Law No. 703 of 2005 makes provision for the Ghanaian government's right to obtain a 10 per cent free-carried interest in mining leases; in Tanzania ss 10(1) and (2) of the Mining Act No. 14 of 2010 also makes provision for free carried interest the extend of which is subject to negotiation;.

implementation of social and labour plans; the existence (thus far) of a designated agency in the form of PASA; and the use-it or lose-it principle coupled with 'the first-come first-served' principle. It has been argued that the South African licencing system is objective, transparent, non-discretionary and liberal. The South African NOC is also a public entity which is more independent from the state and runs its business in a commercial manner. The issue of state participation in South Africa is neither one of 100 per cent or partial participation, nor of carried interest. Rather, state participation takes effect through equity participation through the general BEE legislation[1752] which requires at least 15 per cent participation by HDSAs generally and in terms of the revised mining charter at least 26 per cent participation by HDSAs in the mineral and petroleum sector by 2014.[1753]

It has also been pointed out that, like other African countries, South Africa also suffers from several socio-economic challenges such as the need to balance the desire to conduct extensive exploration of shale gas and the negative environmental impacts associated with shale gas fracking.

As summarised above, proposed legal reforms which seek to, among others, abolish the 'first-come, first-served' principle; disband the designated agency (PASA) that was responsible for receiving and processing applications for licences for the exploitation of petroleum resources; the prohibition of the direct application for petroleum exploitation licences to the Regional Manager without the Minister's invitation for applications with regard to acreage relinquished or abandoned or rights cancelled or lapsed; relinquishment of the area in respect of which a right has been granted, and most importantly, the introduction of the carried-interest system for the first time in South Africa. It remains to be seen whether the Draft Amendment Bill will be passed by

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[1752] The Broad-Based Black Economic Empowerment Act No. 53 of 2003.

[1753] See the Department of Mineral Resources 'Amendment of the Broad-based Socio-economic Charter for the South African Mining and Minerals Industry September 2010, available at

http://www.chamberofmines.co.za/Departments/Health/Downloads/Revised%20Mining%20Charter.pdf (accessed 11 December 2012).

Parliament, as it is or with amendments after all stakeholders and interested and affected parties have submitted their inputs.

CHAPTER 6

COMPARATIVE ANALYSIS OF THE ANGOLAN, THE NIGERIAN, AND THE SOUTH AFRICAN MODELS

6.1. Introduction

As indicated in chapter 1 the main research method utilised in this study is a legal comparative research method. This method is designed to stimulate thought on legal research and could lead to new insights and new significant knowledge. As Africa's oil and gas resources are exploited, it is necessary to employ a comparative method of study in order to determine how best to protect these resources, through legislative and other measures, from being squandered and depleted.

According to Sacco,

> comparative law is like other sciences in that its aim must be the acquisition of knowledge. Like other branches of legal science, it seeks knowledge of law. Comparative law presupposes the existence of a plurality of legal rules and institutions. It studies them in order to establish to what extent they are identical or different.[1754]

Venter and others conclude that-

> [t]he comparative method [of legal research] is that unique, systematic, jurisprudential method, which we apply to gain new knowledge about the legal systems in respect of which we apply it, by taking cognisance of the similarities and differences of those legal systems.[1755]

[1754] See Sacco R 'Legal Formants: a Dynamic Approach to Comparative Law' 39 (1999) *The American Journal of Comparative Law* 1 at 5.

[1755] See Venter F *et al Regsnavorsing – Metode en Publikasie* (Juta 1990) translated by Scott TJ 'The Comparative Method of Legal Research' at 1, available at http://web.up.ac.za/sitefiles/file/47/J%20Scott%20-%20Comparative%20research%20perspectives%20_Private%20law_.pdf (accessed 07 July 2013). See also generally Venter F *Constitutional Comparison: Japan, Germany, Canada and South Africa as Constitutional States* (Juta 2000) 15-17; Venter F *Global Features of*

Similarly, Jansen indicates that-

> comparative law may be seen as a specific legal subject within the broader field of the comparative disciplines which explore the similarities and differences of different cultural or social phenomena. Such research always consists of two "steps" which should be clearly distinguished. The comparatist must first understand and describe the foreign phenomenon before proceeding to formulate a system of similarities and differences which can serve as a basis for further analysis. Only at this second stage does comparison come into play.[1756]

This is the exact mission of this chapter. In chapters 3, 4 and 5 the foundational knowledge of the different oil and gas laws of the three selected African states has been acquired. The different licensing regimes and fiscal systems were investigated and explained. As Sacco explains, 'comparison follows from knowledge of the phenomena to be compared. You can only compare what you are acquainted with'.[1757]

In the last three chapters an acknowledgement was made that there are different models for the regulation of oil and gas upstream activities in the selected African states, and thus a plurality of legal rules and institutions. One is inclined to agree with Sacco that 'the aim of comparative law is to acquire knowledge of the different rules and institutions that are compared'.[1758] The Norwegian carried-interest model that is applicable in Angola; the British discretionary model applicable in Nigeria; and South Africa's unique model are therefore compared to determine their similarities and

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Constitutional Law (Wolf Legal Publishers 2010); Reimann M & Zimmermann R (eds)*The Oxford Handbook on Comparative Law* (Oxford University Press 2008); Zweigert K & Kotz H n 141 *supra* at 34; Michaels R 'Comparative Law' in Basedow, Hopt & Zimmermann (eds) *Oxford Handbook of European Private Law* (Oxford University Press) forthcoming.

[1756] See Jansen N 'Comparative Law and Comparative Knowledge' in Reimann & Zimmermann n 141 *supra*; and Dannemann G 'Comparative Law: Study of Similarities or Differences? also in Reimann & Zimmermann n 1763 *supra.*

[1757] See Sacco n 1762 *supra* at 5.

[1758] See Sacco n 1762 *supra* at 6.

differences. In this chapter it is sought to establish the extent to which these legal systems are identical or different. As Sacco highlights 'to identify differences and similarities among legal systems, we must take into account both legislation and case law'.[1759] Both the large and the small differences, and both the functional and structural or institutional differences are highlighted in this chapter. The comparison also revolves around both the legislative and constitutional instruments, as well as contractual arrangements. The comparison is conducted between the three selected African states with respect to the following issues:

- their endowment with oil and gas resources;
- their comparative regulatory frameworks;
- ownership of the oil and gas resources *in situ*;
- the legal nature of right to oil and gas resources;
- methods of acquiring rights to oil and gas resources;
- the legal nature of licenses;
- transferability, assignment, variation and revocation of rights;
- organisational or institutional structures;
- state/government participation arrangements;[1760]
- petroleum taxation or revenue/ comparative fiscal systems;
- the issue of local content;
- benefits due to, allocated to, or enjoyed by local communities from the proceeds of oil and gas resources;
- the environmental management systems and their challenges;
- other challenges facing the petroleum sector;
- legal reforms, and
- comparative dispute resolution[1761] mechanisms.

[1759] See Sacco n 1762 *supra* at 23

[1760] Through modern concessions, PSA/PSCs, risk service contracts, pure service contracts, and JVs.

[1761] See Bond SR 'Negotiating Dispute Settlement in the International Petroleum Industry: the International Chamber of Commerce' in Wälde & Ngidi n 62 *supra* at 165.

The ultimate objective of this comparison is to determine the effectiveness of the different systems in protecting Africa's petroleum resources from foreign abuse and monopoly. As indicated in chapter 1 of this study, in this respect the evaluation of the effectiveness of the different legal regimes is based on a comparison of their effects (i.e. their outcomes and/or impacts) on the overall objective of protecting these African natural resources from foreign exploitation and ensuring that their exploitation benefits Africa and its peoples. Comparative law has always been used to demonstrate the effects which certain legal rules or regimes and institutions have or produce. This could add a dimension which could probably be legal or policy reform. The criteria used to evaluate the effectiveness of these regulatory regimes are:

- the extent to which they recognise and enforce state ownership of the oil and gas resources *in situ*;
- the extent to which they recognise and enforce the doctrine of PSNR and whether this is appropriate in the African context;
- the effectiveness of the oil and gas laws and extend to which and how they are enforced against the oil and gas companies;
- the extent to which and how they are enforced to protect the environment;
- the extent to which they recognise the need to have institutional capacities for the management of these natural resources; and
- the extent to which and how they are enforced to protect the rights of local communities to be involved in decision-making on issues affecting their health, social and economic wellbeing.

The British and Norwegian legal systems are also utilised to complete the comparison. A comparison is made between these two models and lessons are drawn from that comparison in order to assist the selected African states to improve their domestic regulatory systems.

6.2. Petroleum Resources Endowment: A Comparative Perspective

As indicated in chapter 1 above, Africa is well endowed with natural resources ranging from solid minerals to petroleum. However, the nature of the resources and the extent of the abundance of these resources differ from one state to another.

6.2.1 Nigeria and Angola as Africa's Petro-states: more Similar than Different

As far as oil and gas is concerned, both Nigeria and Angola are Africa's leaders. As indicated in chapter 4 above, once the seventh oil producing state in the world,[1762] Nigeria later ranked position nine in the world's production of crude oil.[1763] It is currently Africa's leading oil producer[1764] and now ranks eleventh as an oil producer in the world. In the words of Young, 'Nigeria is the oil giant of sub-Saharan Africa'.[1765] Some analysts indicate that there are many new reserves of oil found in, amongst others, offshore Nigeria, which are yet to be discovered.[1766] Nigeria is a very significant global player in the petroleum industry and is a member of important bodies such as the World Petroleum Congress, OPEC, and APPA.[1767] It was once ranked sixth in OPEC.[1768] According to the June 2012 BP Statistical Energy Survey, Nigeria had proven oil reserves of 37.2 billion barrels at the end of 2011, equivalent to approximately 41 years of current production and 2.3 per cent of the world's reserves. In addition, proven natural

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[1762] See Inokoba & Imbua n 891 *supra* at 101.

[1763] See Mähler n 902 *supra* at 14. See also 'Opportunities for Danish offshore companies within the Nigerian oil and gas sector' available at http://www.offshorecenter.dk/filer/files/Project/Internationalisering/OCD%20report-Nigerian.PDF (accessed 20 October 2011).

[1764] See Ogri n 895 *supra* at 15.

[1765] See Young n 938 *supra* at 443.

[1766] See Busch n 939 *supra*.

[1767] This association was formed in 1987 and initially comprised of Algeria, Angola, Benin, Cameroon, Congo, Egypt, the Ivory Coast, Gabon, Libya, Nigeria, and Zaire, See Ikein n 891 *supra* at 6.

[1768] *Ibid*.

gas reserves stands at 5.1 trillion cubic metres, which is equivalent to 2.5 per cent of the world reserves.[1769]

Favoured by a strategic geographical coastal location, Angola is also richly endowed with natural resources. The vastest natural resources are Angola's reserves of oil and gas. Angola is not only the main oil producer in the SADC region, but it is also one of the top ranking oil producers on the African continent attaining, since 2005, nearly the same production levels as Nigeria. Like Nigeria, it is also not only an important member of APPA, but has, since 2007, become a member of OPEC. In terms of both reserves and production, it has for a long time occupied a second position on the continent, after Nigeria and it still remains in this position. It is predicted that, with recent discoveries, Angola could soon become the largest producer of oil and gas in Africa, thus overtaking Nigeria. This is due to the declining productive levels of the Nigerian oil due to the increasing and frequent attacks of oil pipelines in the Niger-Delta region and the general instability of the Nigerian oil industry and the associated political risk. However, like Nigeria (and many other petro-states), Angola also suffers from the 'Dutch decease' rendering it particularly vulnerable to the volatility of oil prices as evidenced by the sharp decline of oil prices at the end of 1985.

6.2.1.1 Similarities

With respect to petroleum resources endowment, Angola and Nigeria are therefore comparatively similar. Both are generally rich in petroleum resources and both are Africa's leaders in this regard. With regard to the production, Nigeria leads the continent, but is followed directly by Angola, which is also the leading producer of petroleum resources in the SADC regional organisation. As demonstrated later, both Nigeria and Angola suffer from the same socio-economic challenges including corruption, the

[1769] See http://www.bp.com/assets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2011/STAGING/local_assets/pdf/statistical_review_of_world_energy_full_report_2012.pdf (accessed 19 October 2013).

'resources curse' syndromes and the associated 'Dutch decease', including environmental degradation, petro-violence associated with the production of oil and gas, and the controversial manner of distribution of revenues received for oil and gas exploitation.

6.2.1.2 The Differences

An important difference between Nigeria and Angola is that petroleum resources in the two states are found in different geographical set-ups. As indicated in chapter 3 above, Angola's petroleum resources are largely located offshore and thus protected from the risk and vulnerability of internal conflict and sabotage onshore. On the other hand, Nigerian petroleum resources are largely located onshore and are thus directly exposed to the risks of political instability and sabotage, particularly in the Niger-Delta area. The other difference is that Angola's prospects in terms of both reserves and production are good as compared to Nigeria, as the former is forecast to overtake the later. Nigeria's production is declining due the increasing and frequent attacks of oil pipelines in the Niger-Delta and the general instability of the oil and gas sectors in this populous African state.

Thus from an investor's point of view, a choice has to be made between the risk of too much political instability in Nigeria and the high capital cost of offshore investment in Angola.

6.2.1.3 The Big Difference: South Africa's Insignificant Petroleum Resources

The biggest difference in terms of reserves and production is South Africa. Unlike Nigeria and Angola which are Africa's main petro-states, or the oil giants of Africa, relying heavily on the imports of crude oil,[1770] the production of oil and gas in South Africa is very minimal. As Clarke correctly points out, 'South Africa remains a quasi-

[1770] As the PASA indicates, 'South Africa imports approximately 66% of its crude oil. South Africa has refining capacity of 662 000 bbl/d requirements, mainly from Saudi Arabia, Iran, (including coal to liquids and gas to liquids capability), Nigeria, and Angola'. See PASA n 32 *supra*. See also *South Africa Yearbook* n 35 *supra* at 191.

frontier play with small oil and gas production'.[1771] Despite its generous endowment with solid minerals, South Africa has comparatively minimal petroleum resources.[1772] According to the 2013 first quarter Business Monitor International, South Africa had proven oil reserves of merely 14.9 million barrels at the end of 2012. In addition, proven natural gas reserves stood at a mere 0.54 trillion cubic feet.[1773]

A small similarity, however, is that like Angola but unlike Nigeria, South Africa's future prospect, in terms of potential production and reserves, is promising. As indicated in chapter 5 above, in the past few years there has been a trend of increasing investment into South Africa's offshore blocks, with more than USD 1 billion spent on oil and gas exploration. In addition, it is estimated that South Africa could have the 5th largest shale gas reserves in the world with 485 tcf.[1774] Although there are still many challenges to overcome for this to be ultimately realised, the first step was taken in September 2012 when the South African government lifted its 18-month moratorium on shale gas

[1771] See Clarke n 1307 *supra* at 348.

[1772] See the *White Paper on the Energy Policy of the Republic of South Africa* (1998). See also Maas n 37 *supra*. Like many other countries which depended heavily on crude oil from the Middle East, South Africa became vulnerable to the crude oil supply boycotts of 1974 and 1975 and as a result, took a major policy shift aimed at reducing its dependence on Middle East crude oil. This policy became known as the policy of self-sufficiency. It was aimed at self-sufficiency in liquid fuel supply and the maintenance thereof. (see the *1986 South African Energy Policy* at page 6.) This means that South Africa supplies most of its secondary and primary energy requirements from indigenous sources such as coal, gas, hydro-electricity, pump storage, and nuclear energy. The boycott from the Middle East thus 'spurred a two-way action, namely the expansion of SASOL's synthetic fuel facilities and the search for oil' (see Maas n 1341 *supra* at 81). As crude oil, the primary energy source of liquid fuel, is still imported, the search for this resource is still important (see Mass n 1341 *supra* at 44-45).

[1773] See http://www.businessmonitor.com/ (accessed 19 October 2013).

[1774] See http://www.pwc.com/en_GX/gx/oil-gas-energy/publications/pdfs/pwc_oil_and_gas_tax_guide_for_africa_2013.pdf (accessed 19 October 2013).

development.[1775] Hydraulic fracturing, or fracking, would, however, be prohibited until mining regulations have been adapted. Exploration and pilot studies from the largest owner of acreage are said to be likely to get under way soon, with possible commercial development starting as early as the next seven to nine years.[1776] As indicated above, the main similarity between South Africa and Angola is that the latter's production levels could increase significantly as exploration is already being conducted, particularly with respect to the controversial shale gas exploration in the Karoo.

From an investor's perspective, although not comparatively advantaged in terms of petroleum resources, South Africa could ideally be a much better investment destination compared to Nigeria as the country is politically more stable as well as industrialised and developed than Nigeria and has good oil and gas exploitation potential. As indicated in chapter 5 above, South Africa has some oil and gas exploration potential including exploration for unconventional shale gas. There are already a lot of exploration activities in this regard. With regard to shale gas fracking, there are some environmental concerns particularly relating to the contamination of underground water. These concerns are of course valid and appreciated. However, it is submitted that in light of the serious energy crises facing South Africa;[1777] the economic realities of unemployment[1778] and other factors, the exploration for shale gas fracking in the Karoo is much more economically

[1775] *Ibid*.

[1776] *Ibid*.

[1777] See Govender P, Okoro OI & Chikuni E 'Logical, Inexpensive, Clean and Fast Solutions for the Energy Crisis' available at http://active.cput.ac.za/energy/past_papers/DUE/2007/PDF/010P_Govender.pdf (accessed 19 October 2013).

[1778] In the second quarter of 2013, South African unemployment rate increased to 25.6 percent, the highest rate in two years. See http://www.tradingeconomics.com/south-africa/unemployment-rate (accessed 19 October 2013).

sound and advantageous[1779] than the environmental impact that could arise from any irresponsible fracking. Although there is as yet no scientific evaluation of the potential economic impact of exploiting the Karoo's shale gas reserves, the *Karoo Shale Gas Report: A Special Report on Economic Considerations Surrounding Potential Shale Gas Resources in the Southern Karoo of South Africa* has been released by *Econometrix* in

[1779] In the Western Cape the following have been identified as benefits that will flow from greater use of gas:

- natural gas will extend the life of the PetroSA synfuels plant in Mossel Bay. Additional synfuels capacity could be created in either Mossel Bay or Saldanha Bay as part of a national fuel diversification strategy to offset liquid fuel imports;
- because gas can be used directly as a transport fuel, it provides the potential for future innovations in mobility;
- natural gas can replace coal in metal refining. The Saldanha Bay IDZ [Industrial Development Zone] feasibility study highlights the potential of other metallurgical processes locating to this region. Those mooted are all energy-intensive; a local supply of gas would assist greatly in their energy use efficiency;
- gas can be a feedstock for a range of other industrial processes – from petrochemicals manufacture to cement, metal foundries and glass works;
- natural gas can be used in domestic applications too. This could be attractive in Cape Town, especially if a reticulation network were to be contemplated as part of an energy-efficient urban development strategy (gas is much more efficient than electricity for cooking and space heating). This expanded role for gas needs to be examined in tandem with an accelerated roll-out of liquefied petroleum gas (LPG) for domestic cooking and space heating. It should be noted that an expanded role for gas could significantly reduce peak electricity demand.

See the Interim Report of Western Cape Intra-Governmental Task Team on Shale Gas of August 2012 available at http://eadp-westerncape.kznsshf.gov.za/sites/default/files/news/files/2013-04-24/Interim%20Report%20on%20the%20Potential%20Opportunities%20and%20Risks%20Related%20to%20Shale%20Gas%20Extraction%20in%20the%20Western%20Cape.pdf (accessed 19 October 2013).

2012.[1780] The report acknowledges the environmental concerns over fracking and the analysis is focused on the economic impact side of the debate.[1781] The report estimates macroeconomic impacts for estimated gas finds, using a macro-economic framework, equating expanding gas production values to an injection of income into the South African economy.[1782] The report identifies six possible areas of application for natural gas in South Africa, namely exporting gas; the use of gas as an energy source for domestic, commercial and industrial applications; power generation; creating automotive fuels; and as an energy input in the fertiliser sector.[1783]

Adequate and enforceable environmental regulations should be developed for the prevention, management and remediation of any environmental damage that may arise as a result of fracking. In this regard, the then Minister of Environmental and Water Affairs in South Africa, Ms Edna Molewa, developed a policy discussion document which was submitted for public comments in August 2013.[1784] The policy document proposes, among others, that all licenses for exploration and production of shale gas should be accompanied by water licenses[1785] issued by her department in accordance with strict and serious environmental considerations. This is due to the environmental concerns that hydraulic fracturing might contaminate underground water resources. The Minister of Mineral Resources has also released draft technical Regulations for onshore and

[1780] See Wait R & Rossouw R 'The Economic Benefits of Shale Gas Extraction in the Southern Karoo, South Africa' available at www.essa2013.org.za/fullpaper/essa2013_2484.pdf accessed.(19 October2013.(

[1781] *Ibid*.

[1782] *Ibid*.

[1783] *Ibid.*

[1784] See *Government Gazette* 36760 Notice 368: Notice of Intention to declare Fracking a controlled Activity: National Water Act (36/1998): Proposed declaration of the exploration for and or production of onshore unconventional oil or gas resources and any activities incidental thereto including but not limited to hydraulic fracturing as a controlled activity.

[1785] See http://www.iol.co.za/business/companies/shale-gas-fracking-needs-water-licence-1.1572448 (accessed 05 September 2013).

offshore petroleum exploration and exploitation for public comments.[1786] These Regulations propose, among others, the undertaking of appropriate environmental impact assessment studies for planned exploration and production activities;[1787] agreement between applicants and the authorities of appropriate points in the environmental impact assessment study;[1788] the submission of a final EIA to appropriate authorities;[1789] the assessment of and submission of the geology and the geohydrology of the affected are to authorities;[1790] and the conducting of baseline water quality assessment of all water resources within 1 Km of the vertical projection of the planned wellbore to surface.[1791]

6.2.2 The Comparative Regulatory Frameworks

As indicated in chapter 3 above, variations do exist between different states, both developed and developing, with regard to the regulatory regimes relating to petroleum exploration and production. Hossain indicates that the regulation of petroleum projects in different states falls broadly under three systems, namely, a general legislation or sector-specific legislative system, an individually negotiated agreement system, and a hybrid system.[1792] Although these systems have been explained in chapter 3 above, they are repeated here to put the comparison in a proper context.

As explained in chapter 2 above, under the general legislation or sector-specific legislation system, the relevant legislation fixes predetermined conditions under which the rights to explore for and exploit petroleum resources are granted by means of

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[1786] See Government Gazette No. 36938 of 15 October 2013 General Notice No. 1032 of 2013 *Proposed Technical Regulations for Petroleum Exploration and Exploitation*.

[1787] See clause 3(1) of the proposed Regulations.

[1788] See clause 3(3) of the proposed Regulations.

[1789] See clause 3(4) of the proposed Regulations.

[1790] See clause 4 of the proposed Regulations.

[1791] See clause 5(1) of the proposed Regulations.

[1792] See Hossain n 405 *supra* at 100-101.

standard licences or leases, including royalty taxes and other payments to be made by licensees.[1793] Examples of countries following this system include Australia, Canada and the USA.

The advantage of a sector-specific legislation system is its flexibility, particularly from a host government perspective. Under this system a host government can amend the terms of a concession or license by means of subsequent legislation. While this could be perceived as investor-unfriendly, it 'helps [to] avoid the situation where an individually negotiated agreement "freezes" contract terms over the project life, without any legal recourse to enable adjustment to changing market conditions'.[1794] Thus from a host government's perspective, this is a better system for governments whose petroleum resource are susceptible to the vulnerability of the IOCs and MOCs.

The other advantage of this system is that it allows government's broad policy and strategic objectives to be incorporated into the legal framework, thus providing policy guidance on the design and administration of regulatory arrangements.[1795] Although this could also be done in a contractual arrangement such as a PSC/PSA, service contract, or concession, most of these arrangements usually have stabilisation clauses. These clauses serve to ensure that the principle of sanctity of the contract is strictly adhered to by stabilising the contractual terms and conditions so that these cannot be unilaterally changed by host governments. The sad reality is that such contractual arrangements may last for decades and the stabilisation clauses therefore stifles any legal, political or economic development that might be to the benefit of the host state. For this reason, contractual systems do not provide for flexibility from a host government point of view. Stabilisation clauses are self-centred mechanisms that are effectively designed to protect the profit motivated interests of the powerful IOCs or MOCs while at the same time exposing the African petroleum resources to harmful exploitative activities.

[1793] See Hossain n 405 *supra* at 100.

[1794] See http://www.pc.gov.au/__data/assets/pdf_file/0009/87939/16-appendixc.pdf (accessed 27 August 2013).

[1795] *Ibid*.

Laying down 'minimum standards and basic conditions for the grant of rights of resource exploration and extraction'[1796] in a sector-specific legislation helps to promote transparency and accountability in the administration of the regulatory regime. Thus all applicants, irrespective of any political connection or favourable financial advantage, are subject to similar and equal minimum standards of compliance which are readily ascertainable from publicly available legislative instruments. If detailed rules are included in the legislation, this can benefit compliance with obligations.[1797] Where there is a general legislation or sector specific legislation IOCs are not in a better bargaining position to negotiate favourable terms and conditions which normally serve only their interest to the detriment of the interests of host governments. Unlike in contractual arrangements which often give oil companies an upper hand and best legal protection, which they can easily afford (including their ability to easily engage domestic or international dispute resolution bodies), the sector specific legislation system imposes greater hurdles. However, including excessive project details into legislation can lead to a lack of individually protected contracting flexibility[1798] and thus discourage investment. Countries with minimal comparative advantage in terms of resources will avoid adopting this system if attracting direct foreign investment is their top priority in terms of both policy and strategy.

Under a negotiation-based system, on the other hand, there is no sector-specific legislation, or even if there is some legislation, it is of a very general nature, providing merely a general framework.[1799] Under the latter system, a government will grant the rights to explore for and exploit petroleum resources on the basis of individually negotiated agreements with petroleum businesses in the absence of comprehensive

[1796] *Ibid*.

[1797] *Ibid*.

[1798] *Ibid*.

[1799] See Hossain n 405 *supra* at 101.

petroleum legislation.[1800] This is not ideal from a host government's perspective. Although allowing for flexibility, leaving minimum licensing standards and conditions for the granting of rights to the administrative discretion of the licensing authority or to negotiation could expose the regulatory agency concerned to undue pressure exerted by petroleum businesses individually or collectively.[1801] This is particularly a reality in developing African states such as Nigeria, Angola and South Africa in which the lack of expertise on these issues is still a reality.

Lastly, under a hybrid system, a general legislation sets out certain provisions and minimum standards or conditions for the granting of rights to explore for and exploit petroleum resources. It also provides for certain important matters to be settled by negotiation between the government and individual businesses.[1802] This is arguably the best and the most successful system currently practiced in the world.[1803] In addition to Angola and Nigeria, other countries following this system include the Netherlands, Norway, New Zealand, and the UK.

The biggest advantage of this system is its flexibility for both the host government and the IOCs. As Hossain suggests, the most effective way to introduce contractual flexibility would be to leave room for negotiation on matters for which some variation could be expected.[1804] Such variation could arise from differences in location (e.g. whether the resources are based onshore or offshore, and water depths), or other geological and geophysical features of petroleum projects.[1805] This is also echoed by Onorato[1806] who

[1800] *Ibid.*

[1801] See n 1787 *supra*.

[1802] *Ibid.*

[1803] *Ibid.*

[1804] See Hossain n 405 *supra* at 101.

[1805] See n 1787 *supra*.

[1806] See Onorato n 397 *supra*.

suggests that best practice petroleum regulation should involve integrating the legal, contractual, and fiscal arrangements into a self-contained legislative framework.[1807] Onorato argues that such an integral framework would give both the host government and the petroleum business a clear legal and contractual basis on which to negotiate mutually advantageous arrangements for developing petroleum resources.[1808] Thus the needs and interests of both parties are catered for in this system. Although host governments can put in place minimum standards in a legislative instrument in accordance with its broad policy objectives, including the protection of these depleting resources, IOCs or investors are still given the flexibility to negotiate favourable terms and conditions on certain matters.

6.2.2.1 The Similarity: the Hybrid Regulatory System in Angola and Nigeria

One of the main similarities between Angola and Nigeria is that they have both adopted a hybrid system to regulate their upstream petroleum activities. As indicated in chapter 3 above, typical of the hybrid system, Angola has adopted special legislation governing petroleum development activities, which contains provisions enabling its government to negotiate with petroleum businesses on essential contractual matters. As indicated in chapter 3 above, the principal legislation in this regard is the Petroleum Activities Law of 2004,[1809] which has consolidated, in a single statute, the principles that flow from the previous petroleum law (the General Petroleum Activities Law of 1978), the existing concession decrees, the existing exploration and production contracts, as well as the industry practice that developed throughout the years in Angola. In addition to this general petroleum law, any company wishing to conduct petroleum activities in Angola is obliged to enter into some association with Sonangol, the national concessionaire.[1810]

[1807] *Ibid*.

[1808] *Ibid*.

[1809] See Petroleum Activities Law n 604 *supra*.

[1810] See Hodges *Angola: Anatomy of an Oil State* n 50 *supra*.

The contractual associations may take the form of a normal business corporation or consortium, a PSA, or a risk service contract.[1811]

Similar to Angola, Nigeria has also adopted a 'hybrid (or flexible) system', rather than a 'general legislation system', or a pure 'agreement system', for the regulation of oil and gas exploration and production.[1812] Since 1969, Nigeria has been utilising a general legislation in the form of the Petroleum Act of 1969, for the regulation of oil and gas exploration and production.[1813] In addition to this general legislation, Nigeria has also adopted an agreement system, or contractual arrangements, under which oil and gas exploration and production may be undertaken.[1814] The contractual arrangements, which are open to public bidding when announced by the government, include JVs, and similarly to Angola, PSCs and service agreements[1815] as well.

6.2.2.2 The difference: South Africa's General Legislation System

Unlike Angola and Nigeria, both of which have adopted a hybrid system following the Norwegian and British models respectively; South Africa follows a general, yet unique, legislation system for the regulation of oil and gas exploitation. Moreover, unlike other countries such as the USA, Canada, Australia, and most EEC countries which follow the general legislation system, South Africa has adopted a generic legislative approach in the sense that its legislation is more general or wider than a normal petroleum law. As indicated in chapter 5 above, the South African principal legislation on petroleum exploration, development and production, the MPRDA, is wider than an ordinary petroleum law in the sense that, in addition to oil and gas, it also uniquely covers the regulation of solid minerals such as platinum, gold, or coal. As indicated earlier in this chapter, the general legislation system, although best for the protection of petroleum

[1811] See article 14, read together with article 13 of the Petroleum Activities Law, See also Hodges Angola: Anatomy of an Oil State n 504 *supra* at 147.

[1812] See n 776 *supra*.

[1813] *Ibid*.

[1814] *Ibid*.

[1815] *Ibid*.

resources, is only ideal for countries which are richly endowed with these resources. It is not ideal for a country with minimal or nor petroleum resources at all because it has a potential to scare away investors and thus stifle the development of the petroleum sector which a country such as South Africa desperately needs due to its ongoing energy crises. In this regard the South African system is worse as the MPRDA is much wider than a normal petroleum law.

Unlike major oil producers in Africa, such as Angola and Nigeria, the Middle East and elsewhere, there is no provision in South Africa for contractual arrangements for oil and gas exploration, development, and production. As Barrows indicate, 'in South Africa there is no provision for joint ventures, production sharing [contracts] or [signature or production] bonuses'.[1816] This is probably the biggest disadvantage of the South African system as it does not allow for contractual flexibility and it is contrary to international best practice. However, it could be for this reason that South Africa, with its stable economic and socio-political environment could attract substantial investment as it is cost effective for potential investors to invest in a country where they are not required to make any upfront payments in the form of signature bonuses for such capital intensive projects as oil and gas exploration and production.

Therefore the main difference here is that unlike Angola and Nigeria, South Africa adopted a general legislation system without any contractual arrangements.

6.2.2.3 Which System is Preferable?

Although no system is perfect, it is clear from the above that the hybrid system is the most flexible system and is beneficial not only to host governments, but also to IOCs and MOCs. Both Nigeria and Angola are therefore on the right track with their legislations. South Africa should investigate the possibility of adapting its system so as to bring it into greater alignment with international best practice in the petroleum sector.

[1816] See Barrows n 82 *supra* at 241.

It is also suggested that South Africa should investigate the possibility of revising the MPRDA in order to separate the regulation of solid minerals from that of fugacious hydrocarbons or petroleum. One gets the sense that due to its vast (solid) mineral resources, the South African government gives more attention to the regulation of these resources than the regulation of petroleum resources which are not in such abundance. However, with the current exploration activities, South Africa's petroleum potential, as indicated in chapter 5 above and the current energy crises, it is suggested that the South African government must invest more time, energy and resources on strategic and policy direction into this area.

One of the biggest anomalies that arises from combining the regulation of solid mineral resources and hydrocarbons under one regulatory code is the fact that issues of energy (including oil and natural gas as sources of energy) and issues of mining and mineral resources are regulated under two separate ministries, namely the ministry of mineral resources and the ministry of energy. South Africa therefore has two separate government ministries implementing one piece of legislation. This has a potential to confuse not only investors and host communities, but also the government ministers and officials in the two ministries. This could result in a battle between the government officials for the survival of their respective ministries while paying little, if any attention, to the wider objectives of the legislation. A separate petroleum law is therefore necessary.

The hybrid system offers a better protection of African petroleum resources from unscrupulous exploiters as the legislative framework would have defined the ownership of the resources and the state or government participation. The contractual frameworks would also re-emphasise this and provide more details about the arrangement while also making provision for flexibility for the government to negotiate terms and conditions which are best for them and are in line with their broad policy objectives.

6.2.3 Ownership of the Oil and Gas Resources *in situ*: A Comparative Analysis

As indicated in chapter 1 above, the Angolan legal system is a civil law system based on Portuguese civil law.[1817] The legal system is therefore in the form of statutes or codes imposed by Portugal during the colonial period. Under the civil law system, applicable codes govern ownership of natural resources including the petroleum resources. As the civil law systems have their origins in Roman law, property rights in civil law systems strongly mirror Roman law principles,[1818] which historically provided that private ownership included ownership to the centre of the earth and to the sky. Although these concepts have been codified, most states in civil law jurisdictions have eventually passed particular codes to reserve subsurface rights to the state.

Section 3 of the Angola's 2004 Petroleum Activities Act[1819] provides that 'petroleum deposits are an integral part of the public property of the state'. The right to explore for, develop or produce oil and gas is granted by the state typically by a licence. This is confirmed by article 16 of the 2010 Constitution of Angola which provides that-

> [t]he solid, liquid and gaseous natural resources existing in the soil and subsoil, in territorial waters, in the exclusive economic zone and in the continental shelf under the jurisdiction of Angola shall be the property of the state, which shall determine the conditions for concessions, surveys and exploitation, under the terms of the Constitution, the law and international law.

Ownership of petroleum resources *in situ* in Angola therefore vests in the state. In accordance with article 3 of the 2010 Constitution the state exercises its sovereignty over all Angolan territory which includes its land, interior and territorial waters, soil and sub-soil, seafloor and associated sea beds.

[1817] The Portuguese legal system is a civil law or continental legal system, based on Roman law. See De Marinda AP & Fialho JA 'Angola' available at http://www.mirandalawfirm.com/uploadedfiles/20120405_1cd8ca.pdf (accessed 18 September 2013).

[1818] See Brants n 143 *supra* at 36.

[1819] See the Petroleum Activities Law n 604 *supra*.

Unlike Angola, the Nigerian legal system is based on English common law.[1820] Although in the common law jurisdictions, property ownership rights were, in accordance with the *ad coelum* principle,[1821] traditionally deemed to extend to anything found under the ground of the land, as well as above it into the atmosphere,[1822] statutory provisions amended this rule to the effect that certain natural resources including petroleum *in situ* are deemed to be owned exclusively by the state and administered by government.[1823] This trend is therefore similar to the one under the civil law system as indicated above.

In terms of this regulatory framework, ownership of oil and gas resources in Nigeria is vested in the Nigerian federal government.[1824] The Nigerian Constitution makes provision for state ownership of petroleum resources in Nigeria.[1825] Section 44(3) of the constitution vests 'control of all minerals, mineral oils and natural gas in, under or upon any land in Nigeria, its territorial waters, and Exclusive Economic Zones [EEZ],' in the Federal government, which shall manage the same in the prescribed manner. This constitutional provision is further strengthened by item 39 of the Second Schedule to the Constitution, which confers the power to make laws on mines, minerals, including oil fields, oil mining, geological surveys, and natural gas, on the central legislature.

The Petroleum Act also makes provision for state ownership of petroleum resources. In terms of the long title of the Act, ownership of petroleum resources vests in the federal government. Section 1 of the Act reinforces this principle by providing that 'the entire ownership and control of all petroleum in, under or upon any lands to which this section applies shall be vested in the State'. Such land includes all land (including land covered

[1820] See generally Obilade OA *The Nigerian Legal System* (Sweet & Maxwell 1979).

[1821] See n 957 *supra*.

[1822] See n 957 *supra*.

[1823]See n 958 *supra*.

[1824] See n 956 *supra*.

[1825] See n 929 *supra*.

by water) which is in Nigeria; or is under the territorial waters of Nigeria;[1826] or forms part of the continental shelves; or forms part of the EEZ of Nigeria.[1827] The issue of ownership of crude oil in Nigeria being vested in the federal government was also confirmed by the judiciary in *South Atlantic Petroleum Ltd v Minister of Petroleum Resources.*[1828]

The main similarity between Angola and Nigeria is the fact that in both systems the state is the owner of the petroleum *in situ.* State ownership of petroleum resources is an effective way of promoting the protection of Africa's petroleum resources from exploitation, abuse and depletion. However, South Africa is different in the sense that, contrary to international best practice, ownership of petroleum resources does not vest in the state or any other entity.

Despite the fact that, like Nigeria, South Africa is also generally a predominantly common law system, it does not follow the general *ad coelum* rule under the common law. Neither does it follow the common statutory exception to the common law general rule, namely the establishment of state ownership of natural resources including oil and gas. Instead it uniquely provides for state sovereignty and custodianship of petroleum resources *in situ*.

Therefore as far as the issue of ownership of petroleum resources *in situ* is concerned, Angola and Nigeria are the same. They both provide for state ownership of these resources. South Africa, however, is different in the sense that it does not make provision for ownership of these resources at all. As indicated in chapter 5 above, all that the MPRDA makes provision for is that the state is the custodian of the nation's

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[1826] The Nigerian Land Use Act of 1978 makes the government the owner of all land in Nigeria.

[1827] See s 1(1) of the Petroleum Act. See also Adaralegbe AG 'Mergers in International Petroleum Industry: Legal Aspects on the Operations of Petroleum Development Companies in Nigeria' 21(1) (2003) *JENRL* 325 at 341; and Kalu & Steward n 32 *supra* at 257.

[1828] (2006) 10 CLRN 122.

resources. It is evident that 'the nation' is not a legal person which could exercise rights and bear obligations under international or South African domestic law. Unlike the South African Constitution, article 16 of the Angolan Constitution does make provision for state ownership of petroleum resources.

6.2.4 PSNR in Africa: Comparison between Angola, Nigeria and South Africa

As indicated in chapter 1 above, the state ownership of natural resources under the common law is also referred to as the doctrine of national ownership;[1829] the rationale behind which is to secure the sustainable exploitation of resources for the benefit of all present and future generations.[1830] The theory of national ownership is based on the doctrine of Permanent Sovereignty over Natural Resources (PSNR).[1831]

As indicated in chapter 1 above, in Africa PSNR is manifest in the domestic laws of most states including Angola and Nigeria, and to a lesser degree also in South Africa. In Angola this is provided for in the preamble and in article 3 of the Petroleum Activities Law.[1832] In South Africa section 2 of the MPRDA[1833] also refers to PSNR. In Nigeria section 44(3) of the Constitution of the Federal Republic of Nigeria, 1999 and section 1(1) of the Minerals and Mining Act No 34 of 1999, section 1 of the Petroleum Act 1969; and section 2 of the Exclusive Economic Zones Act of 1978 make similar provisions for PSNR. However, and similar to the 1996 Constitution of South Africa, the 2010 Angolan Constitution does not make provision for PSNR.

[1829] See Iweri n 109 *supra*.

[1830] *Ibid*.

[1831] *Ibid*.

[1832] Law No. 10/04 of 12 November 2004.

[1833] See n 37 *supra*.

As argued in chapter 1 above, there is a need to develop an African approach to the doctrine of PSNR. The Constitutive Act of the African Union (AU) did not expressly make any provision for PSNR in either the constitutive document or any of its treaties or protocols.[1834] However, article 21 of the African [Banjul] Charter on Human and Peoples' Rights affirms a right of '[a]ll peoples' to 'freely dispose of their wealth and natural resources', and 'this right shall be exercised in the exclusive interest of the people. In no case shall a people be deprived of it'.

It is argued that PSNR in the African context should be a right that accrues to indigenous communities in oil producing areas instead of being a right that accrues to the state, ending up being exploited by the elite leaders in government. The International Labour Organization Indigenous and Tribal Peoples Convention, 1989 (No. 169), contains important provisions for control over natural resources by indigenous peoples

[1834] See in this regard http://www.au.int/en/treaties (accessed 27 April 2013). See in particular the African Convention on the Conservation of Nature and Natural Resources, which does even include oil and gas in its definition. Article V(i) of this protocol provides that "natural resources" means renewable resources, tangible and non-tangible, including soil, water, flora and fauna and non-renewable resources. Whenever the text of the Convention refers to non-renewable resources this will be specified. However, in 2011 the AU adopted the Natural Resources Charter. The Natural Resource Charter is an international initiative that aims to help governments, industries and societies of resource-rich countries to make the most of extractive resources. The Charter is structured around 12 'precepts' of good practice developed by a group of international experts. It has been adopted by NEPAD. Although this Charter does not explicitly provide for PSNR, precept 4 of the Charter provides that 'fiscal policies and contractual terms should ensure that the country gets full benefit from the resource, subject to attracting the investment necessary to realize that benefit. The long-term nature of resource extraction requires policies and contracts that are robust to changing and uncertain circumstances'. See http://naturalresourcecharter.org/precepts (accessed 16 April 2014). Also the African Mining Vision (AMV) which is another attempt by the AU to manage natural Resources does not refer to PSNR. The AMV was adopted by the AU in 2009 as a framework for developing mineral resources in Africa. See http://www.africaminingvision.org/ (accessed on 16 April 2014).

in their collective capacity as peoples. Article 15 of this convention provides for the rights of 'peoples' to their natural resources. It reads as follows: 'The rights of the peoples concerned to the natural resources pertaining to their lands shall be specifically safeguarded. These rights include the right of these peoples to participate in the use, management and conservation of these resources'. The UN Special Raporteur, Erica-Irene Daes concludes that the term 'sovereignty' may be used in reference to indigenous peoples without in the least diminishing or contradicting the 'sovereignty' of the State. The well-established use of the term in many areas of the world rules out any such implication.

This proposition finds support in the indigenous peoples' right to internal self-determination.[1835] The UNGAR 1314 (XIII), for instance provides that 'the right of peoples and nations to self-determination as affirmed in the two draft Covenants completed by the Commission on Human Rights includes 'permanent sovereignty over their natural wealth and resources'. The report by Daes on *Indigenous Peoples' Permanent Sovereignty over Natural Resources* for the Commission on Human Rights analysed international, regional and domestic legislation, adjudication and practice and comes to the conclusion that indigenous peoples indeed can claim a right to PSNR.[1836]

6.2.5 The Legal Nature of the Right to the Oil and Gas Resources: A Comparative Analysis

[1835] According to Hofbauer a differentiation in the application between the right to external and internal self-determination must be made. 'While the former refers to the right of peoples to choose their own international status (independence, free association with another state, secession, union, or the choice of any other political state as freely accepted by the people), the latter is often understood as comprising the right to self-government, i.e. autonomy within a state' See Hofbauer n 182 *supra* at 54-55.

[1836] See *Commission on Human Rights*: 'Prevention of Discrimination and Protection of Indigenous Peoples, Indigenous Peoples' Permanent Sovereignty over Natural Resources', Final report of the Special Rapporteur, Erica-Irene A. Daes, July 12, 2004, Annex II, p. 9, para. 1, UN Doc. E/CN.4/Sub.2/2004/30/Add.1.

South Africa, Angola and Nigeria adopted a concessionary system for the allocation of petroleum acreage rather than a contractual system. As Tordo and others indicate, a concession grants an exclusive license to a qualified investor.[1837] The South African production licences, Nigerian OPLs and Angolan concessions discussed above are typical examples of modern concessions.[1838]

The rights granted under these concessions are property rights of ownership which vest in the state in Angola and Nigeria. In South Africa, the MPRDA explicitly states that a production right is a limited real right in respect of the petroleum and land to which such right relates. Dale submits that this is preferable to the provision merely of permits and licences, which are found in administrative law, whereas the reference to rights adds a proprietary and possibly contractual overlay to what would otherwise be a purely administrative instrument.[1839] He concedes, however, that the rights are granted administratively and that the grant of these rights does not confer ownership of the resources *in situ* to the holder of the right but could confer suspensive ownership, that is ownership passes suspensively on the mining or production actually taking place.[1840] However, in *Agri SA II* the court effectively held that the 'right to mine', as opposed to its allocation, is not a regulatory matter, 'but a matter of the substantive powers of the state in contrast to private law rights to property'.[1841]

[1837] See Tordo S *et al* 'Countries' Experience with the Allocation of Petroleum Exploration and Production Rights: Strategies and Design Issues' *World Bank Working Paper- Draft, 2009* at 9.

[1838] This differs from historical or traditional concessions. As Tordo *et al* note 'historically, mineral rights were granted by concession. The original concession (i) granted rights to petroleum development over a vast area; (ii) had a relatively long duration; (iii) granted extensive control over the schedule and manner in which petroleum reserves were developed to the investor; and (iv) reserved few rights for the sovereign, except the right to receive a payment based on production'. See Tordo *et al* n 1505 *supra*.

[1839] See Dale n 1323 *supra* at 828.

[1840] *Ibid.*

[1841] See *Agri SA II* n 1501 *supra* at para 99.

As argued in chapter 5, the legal nature of the licenses in South Africa is essentially concessionary rather than contractual. As Dale correctly indicates, the Act (the MPRDA) does not allow for the negotiation of individual mineral (and petroleum) or stabilisation agreements.[1842] The granting of these rights is characterised by an administrative process[1843] which entails a state organ granting or issuing a licence or permit to an applicant after the later has submitted an application in a prescribed manner. The state organ exercises a public power or performs a public function by issuing the license or permit provided that the applicant meets predetermined statutory requirements. The state organ also subjects the licence or permit to some terms and conditions in accordance with the law. This is therefore an administrative decision-making based on payment of predetermined fees rather than a competitive bidding or auction based on the payment of the highest signature bonuses. The MPRDA therefore does provide for an administrative process which entails that decisions must be taken within a reasonable time and in accordance with the principles of lawfulness, reasonableness and procedural fairness; and those decisions must be in writing and be accompanied by written reasons.[1844] The system is one of administrative law where a state organ makes a decision based on predetermined criteria rather than a contractual arrangement between the state and IOCs.

6.2.6 Comparative Methods of Acquisition of Licences and Rights: An Analytical Approach

In this section a comparison is made between Angola, Nigeria and South Africa on types of licences that are utilised for granting rights to explore for, develop and produce oil and gas; the criteria for awarding such licenses; the method for granting licences and issues of preference or discretion of the licencing authority.

[1842] See Dale n 1323 *supra* at 829.

[1843] See also Dale n 1323 *supra* at 828.

[1844] See Dale n 1323 *supra* at 832. See also generally the Promotion of Administrative Justice Act 3 of 2000.

6.2.6.1 Types of Licences

There are different types of licences in the three jurisdictions under discussion. In Angola, there is a prospecting licence and a concession. In Nigeria there are three licences for the exploitation of petroleum resources namely an OEL, an OPL and an OML. In South Africa, there are four licences for the exploration and production of petroleum resources, namely a reconnaissance permit, a technical cooperation permit, an exploration right and a production right.

Due to the fact that there is an exclusive national concessionaire in Angola, a prospecting licence is issued by the Minister after receiving recommendations from Sonangol, the national concessionaire. Sonangol therefore plays a role in the granting of prospecting rights in Angola, thus blurring the distinction between the regulator and the commercial player. A prospecting licence is granted on payment of a fee and is granted once the Minster has issued his consent and such licence must be publicised by the Minister. It is valid for a maximum period of three years. A prospecting right grants the holder the right to perform the activities of prospection, exploration and production of oil in a certain area (block) on an exclusive basis. A prospecting licence does not grant the holder any preferential rights in relation to the subsequent entry into an agreement with Sonangol regarding the exploration for and production of hydrocarbons in the area to which the prospecting licence relates.

In addition to a prospecting licence, a petroleum concession can also be issued, through the publication of a concession decree, for the exploration and production of petroleum resources. Concessions are either granted directly to the national concessionaire or through an open tender or direct negotiation between the national concessionaire and an associate. Direct negotiation is only allowed if immediately following an open tender, it is found out that there is a lack of bids, or the bids submitted in response to the open tender are considered unsatisfactory in view of the adopted criteria.

In Nigeria there are three licences for oil and gas exploration and production, namely an oil exploration licence or OEL, an oil prospecting licence or OPL, and oil mining licence or OML. An OEL entitles the holder to explore for oil and gas on a specified non-exclusive area; it is valid for 1 year, subject to renewal for another one year on condition that the licensee has satisfied all the obligations of the licence, the Minister is satisfied with the work done, and the application for renewal was made at least 3 months prior to the expiry of the licence. An OPL entitles the holder to an exclusive right to explore and prospect for oil and gas on a specified area; and is valid for a maximum renewable period of 5 years, subject to set minimum drilling requirements. An OML entitles the holder to an exclusive right to search for, win, work and carry away, and dispose of petroleum. It is granted to the holder of an OPL who satisfied all the conditions of an OPL and discovered oil in commercial quantities (that is, at least 10 000 bpd). It is valid for a maximum renewable period of 20 years, subject to a relingushable area of at least 1 half of the lease area after the initial 10 years.

In South Africa there are two permits and two licences for oil and gas exploration and production, namely a reconnaissance permit, a technical cooperation permit, an exploration right and a production right. A reconnaissance permit is valid for a non-renewable period of 1 year and is non-exclusive. A technical cooperation permit is also valid for one year, non-exclusive and non-transferable. It entitles the holder to conduct desktop studies or acquire seismic data from other sources including PASA but does not include any prospecting activity. However, it entitles the holder to apply for an exploration right. An exploration right entitles the holder to apply for a production right. It is valid for at least 3 years and is renewable for 3 periods each of which does not exceed 2 years. A production right is valid for a maximum period of 30 years and is renewable for a further 30 years.

The Nigerian OEL and South Africa's exploration right are different in terms of duration. While both the South African exploration right and the Angolan prospecting right are valid for 3 years, a Nigerian OEL is only valid for 1 year. In terms of duration the OEL is therefore more equivalent to South Africa's reconnaissance permit and a technical

cooperation permit which are both valid for only one year. It is important to note that Angola does not have a special exploration right but only a prospecting right.

A Nigerian OPL also differs from a South African production right in terms of duration. While the former is only valid for 20 years, the latter is valid for a period of 30 years which is also renewable for another 30 years. The Angolan oil and gas concession is like the Nigerian OPL also generally valid for a renewable period of 20 years.

6.2.6.2 Methods for Acquiring Rights

As indicated earlier, in Angola Sonangol is the national concessionaire. As such it has exclusive rights to explore for and produce petroleum resources in Angola. If it chooses to exercise this right, it may apply to MinPet for a concession to be granted directly to it. However, Sonangol may also choose to work with an associate in the exploration and production of petroleum. If it exercises the later choice, it may apply to MinPet to call for an open tender in which companies can bid for the status of associate of the national concessionaire. If the bids from the open tender do not satisfy the criteria specified by the call for open tender or if there was lack of bids, Sonangol can directly negotiate with a potential associate.

Nigeria has adopted the British common law model of oil and gas licensing which follows competitive bidding. Companies wishing to undertake oil operations (exploration, development, and production) in Nigeria and in the JDZs must submit an application for blocks in a licensing round.[1845] The blocks are awarded to the winning company or companies with the grant of an OPL, which may be converted into an OML, which grants the oil company the exclusive right, within the leased area, to explore, develop, and produce oil and gas.[1846]

As indicated in chapter 5 above, in South Africa there are two main methods of awarding licenses under the MPRDA. Firstly, exploration and production licenses may be awarded to applicants after an invitation for application has been placed by the Minister of Mineral

[1845] See Kiluange n 1009 *supra* at 6.

[1846] *Ibid*.

Resources in a notice in the *Government Gazette*, specifying the block or blocks, the period within which applications may be lodged with the designated agency (PASA),[1847] and the terms and conditions subject to which such licenses may be granted.[1848] Secondly, applicants can directly lodge applications for exploration and production rights in respect of blocks which are not subject to the Minister's invitation.[1849]

Therefore while Angola utilises an open tender and a direct negotiation system, Nigeria follows a competitive system and an application system. South Africa, on the other hand, uses an application system either after an invitation for such applications or a direct application without such invitation.

6.2.6.3 Criteria for Granting Licences

The generally accepted criteria for awarding petroleum licences worldwide are the applicants' or bidders' technical ability and access to financial resources. However, in addition to these some countries such as Britain and Nigeria also have other criteria such as preference being given to British companies or companies incorporated in Nigeria and other discretionary criteria.

6.2.6.3.1 Technical Ability and Financial Resources

In terms of section 34 of the Angola's 2004 Petroleum Activities Act the criteria for granting a prospecting licence is recognised capacity, technical knowledge, and financial capability.[1850]

[1847] PASA must within 7 calendar days (reckoned be excluding the first and including the last day) of receiving such an application inform the Minister of such receipt. See s 73(3) read together with the definition of day in section 1 of the MPRDA.

[1848] See s 73(1) of the MPRDA.

[1849] See s 73(2) of the MPRDA.

[1850] See articles 33 and 34 of the Petroleum Activities Law.

Similarly, the criteria for awarding petroleum exploitation licenses in South Africa also include access to financial resources;[1851] the technical ability to conduct the proposed reconnaissance survey, technical cooperation study, exploration operation, or production operation in accordance with the reconnaissance, technical co-operation, exploration, or production operation, as the case may be;[1852] and the compatibility of estimate expenditure with the intended reconnaissance, technical co-operation, exploration, or production operation and the duration of the relevant reconnaissance, technical co-operation, exploration, and production work programme, as the case may be.[1853]

On the contrary, in Nigeria the 1969 Petroleum Act does not make express provision for technical capacity and financial resources as criteria for granting or refusing to grant OELs, OPLs, or OMLs. However, the Minister can give consent for assignment of rights only if there is likely to be available to the proposed assignee (from his own resources or through other companies in the group of which he is a member, or otherwise) sufficient technical knowledge and experience and sufficient financial resources to enable him to effectually carry out a programme satisfactory to the Minister in respect of operations under the licence or lease which is to be assigned.

6.2.6.3.2 Preference/ Discretion

South Africa operates on the basis of the 'first-come, first-served'[1854] or FIFA principle when awarding exploration and production licenses. This means that rather than dealing with conflicting applications on merit, the date of lodgement of the application becomes imperative. The only exception is that when applications are lodged on the same day,

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[1851] See n 1478 *supra*.

[1852] See n 1479 *supra*.

[1853] See n 1480 *supra*.

[1854] *Ibid*. See also Dale n 1323 *supra* at 832; Williams JP 'The Lating American Mining Model' in Bastida *et al* n 35 *supra* at 747; and Ibraimo L 'Comparative Mineral Law in African Portuguese-Speaking Countries' in Bastida *et al* n 35 *supra* at 899.

preference is given to HDSAs. South Africa has therefore adopted the 'first-come, first-serve' strategy for acreage acquisition, with more rapid negotiations to secure new entries, thus encouraging an infusion of multiple independents.[1855] In South Africa the social and labour plans, the BEE requirements and the environmental management plans or programmes are also imperative.

In relation to the granting of an exploration right, section 80(1)(g) also provides that the Minister must grant such a right if the granting of such a right will further the objects referred to in section 2(d) and 2(f); namely the substantial and meaningful expansion of HDSAs, including women and local communities, to enter into and actively participate in the mineral and the petroleum industries and to benefit from exploitation of the nation's mineral and petroleum resources; and the promotion of employment and advancement of the social and economic welfare of all South Africans. This is echoed in section 84(1)(i)[1856] of the MPRDA which adds an absolute requirement for compliance with the Charter contemplated in section 100[1857] of the MPRDA for the granting of a production right.

[1855] See Clarke n 1307 *supra* at 79; and Dale n 1323 *supra* at 832.

[1856] Section 84(1)(i) of the MPRDA provides that the Minister of Mineral Resources must grant a production right if the granting of such right will further the object referred to in ss 2(d) and (f) and in accordance with the Charter contemplated in s 100 and the prescribed social and labour plan.

[1857] The relationship between the Charter and recently published Codes of Good Practice, published under the Broad-Based Black Economic Empowerment Act, 2003, remains unclear. The Codes of Good Practice are intended to be the yardstick against which all industry BEE initiatives are measured. The Charter and Scorecard, however, differ significantly from the Codes of Good Practice and the detailed 'Generic Scorecard' for measuring BEE compliance that the Codes specify. It is not clear to what extent the Codes of Good Practice will affect the award of rights under the MPRDA and the conversions of old order rights during the transitional phase. However, the Minister is presently applying the Charter for purposes of measuring BEE compliance in awarding rights, granting conversions and approving the transfer of rights in terms of s 11 of the MPRDA.

With regard to the order of processing mineral and petroleum development applications, section 9 of the MPRDA, read together with section 69 of the same Act, provides that competing applications (for the same mineral and land) will be dealt with in the order of receipt. When applications are received on the same date, preference will be given to those submitted by HDSAs.[1858] However, as referred to in chapter 5 above, this strategy is sought to be abolished in the latest legal reforms proposed.

In Nigeria there is no express provision for technical capacity and access to financial resources as criteria for granting or refusing to grant licenses. Preference is given to Nigerian companies. Typical of the British discretionary licencing model, only citizens of Nigeria and companies incorporated in Nigeria can be granted an OPL or OML or allowed to hold or acquire any interest in the licence or lease. Nigerian company law does not permit branch operations. As such, any foreign company that intends to do business in Nigeria or to hold any interest in an OPL or OML is required by law to establish a subsidiary or affiliate company in Nigeria for that purpose. There is no express requirement that such a company should be controlled by Nigerians.

However, in terms of the Local Content Act, Nigerian independent contractors are entitled to first consideration and preference in the award of oil blocks, oil fields licences, oil lifting licenses, and in all projects for which contract are to be awarded in the Nigerian oil and gas industry subject to fulfilment of such conditions as may be specified by the Minister.[1859] It also stipulates that exclusive consideration shall be given to Nigerian indigenous service companies which demonstrate ownership of equipment, Nigerian personnel and capacity to execute such work to bid on land and swamp operation areas of Nigeria for contracts contained in the schedule of services to the Act.[1860]

[1858] See s 9(2) of the MPRDA.

[1859] See n 1762 *supra*.

[1860] See s 3(2) of the Nigerian Oil and Gas Industry Content Act n 1109 *supra*.

6.2.6.3.3 Environmental Criteria in South Africa but not in Nigeria and Angola

In South Africa licences are granted on condition that the envisaged reconnaissance or production operation does not result in unacceptable levels of pollution, ecological degradation or damage to the environment;[1861] or on condition that an environmental management programme for an exploration right is approved.[1862]

There is no similar requirement or criterion for granting prospecting licenses and concessions in Angola, or OELs, OPLs or OMLs in Nigeria.

6.2.7 The Legal Nature of the License: A Comparative Analysis

The legal character of petroleum licences in Nigerian, Angola and South Africa do not differ substantially from that of the English petroleum licenses for the exploration, development and production of oil and gas resources as discussed earlier. They are both private contractual or property rights and public law issues and thus regulatory. The private law elements are the logical consequences of the contractual and commercial nature of the business. The public law elements are not only derived from the state ownership of petroleum resources, but rather from the legislative and administrative regulation thereof which entails not only the granting of licenses by an authoritative government body, but also the fiscal arrangements in terms of which the non-state contractor is obliged to make payments to the state, be it in the form of taxes, signature bonuses, or royalties. The public law element or regulatory nature of the licenses is also evident from other state regulatory intervention in the form of environmental regulation and occupational health and safety. Most importantly, the discretionary nature[1863] of the Minister's power to grant or refuse to grant the license strongly suggests and supports its public law and thus its regulatory nature; and so is the fact that the Minister, by regulations prescribes model clauses.

[1861] See n 1437 *supra*.

[1862] See n 1438 *supra*.

[1863] See Kolo n 958 *supra*.

However, a suggestion could be made that the Angolan concessions are more of a regulatory rather than a contractual nature due to the nature of Sonangol as a sole national concessionaire vested with exclusive rights to explore and produce oil and gas in Angola and to select an associate.

6.2.8 The Transferability, Assignment, Variation and Revocation of Rights: A Comparative Perspective

In Angola due to the fact that Sonangol is the exclusive national concessionaire, it is prohibited from partially or fully transferring its mining rights.[1864] Any action to that effect of partial or full transfer of mining rights is deemed null and void.[1865]

As far as assignment is concerned, In terms of article 16 of the Petroleum Activities Law, the associates of the national concessionaire may only assign part or all of their contractual rights and duties to third parties of recognised capacity, technical knowledge and financial capability, after obtaining the prior consent of the Minister by means of executive decree. This assignment is not required for an assignment between affiliated companies, provided that the assignor remains jointly and severally liable for the duties of the assignee. In accordance with this section, the transfer to third parties of shares representing more than 50 per cent of the share capital of the assignor shall be equivalent to the assignment of contractual rights and duties. The relevant assignment contracts shall be submitted to the prior approval of the national concessionaire, which has the rights of first refusal if the assignee is a non-affiliate of the assignor.

In Nigeria, it is also important to note that rights acquired by virtue of the licenses may be revoked.[1866] The circumstances for revocation are contained in paragraph 23(1) of

[1864] See Hodges *Angola: Anatomy of an Oil State* n 504 *supra* at 147.

[1865] See article 5 of the Petroleum Activities Law.

[1866] See Nlerum n 900 *supra* at 154.

the schedule to the Act.[1867] Where there is decision to revoke, the holder of the license or lease shall be informed of the grounds for such revocation and be given an opportunity to put forward its explanations.[1868] If the explanation is taken and accepted, the right might be restored.[1869] Where, however, there is insufficient explanation, the revocation takes effect and the notice of revocation is gazetted.[1870]

Similarly to Angola, assignment of rights in Nigeria requires ministerial consent, which cannot be obtained if the assignees do not have the technical knowledge and the financial resources to undertake the operation. Without the prior consent of the Minister, the holder of oil prospecting licence or an oil mining lease shall not assign his licence or lease, or any right, power or interest therein or thereunder. Similarly to the legal position in Angola, the Minister shall not give his consent to an assignment unless he is satisfied that (a) the proposed assignee is of good reputation, or is a member of a group of companies of good reputation, or is owned by a company or companies of good reputation; (b) there is likely to be available to the proposed assignee (from his own resources or through other companies in the group of which he is a member, or otherwise) sufficient technical knowledge and experience and sufficient financial resources to enable him to effectually carry out a programme satisfactory to the Minister in respect of operations under the licence or lease which is to be assigned; and (c) the proposed assignee is in all other respects acceptable to the Federal Government.

There is no explicit provision for assignment of rights in the MPRDA.

6.2.9 The Comparative Institutional or Organisational Structures

In South Africa, the structural arrangement consist of the DMR which is a national executive branch of government responsible for policy development and implementation

[1867] *Ibid*.

[1868] *Ibid*.

[1869] *Ibid*.

[1870] *Ibid*.

including petroleum policy; PASA which is a designated agency of the DMR responsible for receiving and processing applications for licences and making recommendations to the DMR for the granting or refusal to grant petroleum licences and PetroSA which is South Africa's NOC. PetroSA is a fully fledged commercial and diversified oil and gas company competing with similar companies worldwide and unlike its counter parts in Angola and Nigeria, does not have any regulatory function whatsoever.

Whilst South Africa's PetroSA is a fully commercial and, to a large extend independent NOC, Angola's Sonangol is a sole concessionaire with both commercial and regulatory roles. This often leads to conflict of interests as demonstrated in chapter 3 above. As indicated in chapter 3 above, although formally there is a separation of functions between MinPet, which ideally oversees and regulates oil and gas exploration activities and field production levels, and Sonangol, which is supposed to be a purely commercial entity, there is no real separation of functions between the two as Sonangol effectively and practically performs both the role of regulator and commercial entity. This is in direct conflict with the Norwegian model of separation of functions in terms of which regulatory and commercial functions are separated[1871] in order to avoid conflicts of interest and corruption. Sonangol has also been criticised for its weak corporate governance and it close links to the President which often results in the looting of resources.[1872]

In Nigeria the key regulatory institutions in the oil and gas industry include the NNPC, which is mainly responsible for the management and supervision of government's interest in the industry; the Department of Petroleum Resources (DPR) which is responsible for the regulation and supervision of oil and gas operations carried out under the various licenses and leases; and the Federal Inland Revenue Service (FIRS), which is responsible for the administration of the PPTA and other taxation issues relating to the industry.

[1871] See n 68 *supra*.

[1872] See Thurber *et al* n 417 *supra*, for weak governance; and Ramos n 578 *supra* at 23 for close link with the Presidency. It is reported that at 40 Dos Santos is Africa's only female billionaire, and also the continent's youngest, with suggestions being made that she amassed her wealth from Angola's oil revenues due to her being the President's eldest daughter.

Similar to Sonangol in Angola, the biggest challenge of the NNPC is its dual role as both a commercial player and a regulator. It is both a commercial player and a regulator under the control of the Nigerian federal government. As indicated in chapter 4 above, the affairs of the NNPC are conducted by a board of directors chaired by the Minister of Petroleum Resources and including the Director-General of the Federal Ministry of Finance and Economic Development, a managing director, and three persons appointed by the National Council of Ministers by reason that their ability, experience, or specialised knowledge of the oil industry or of business or professional attainments, are capable of making useful contributions to the work of the corporation. There is therefore no real separation of regulatory and commercial functions as the Minister, as both a member of the executive arm of government and chair of the NOC, plays both the roles of regulator and commercial entity resulting in a conflict of interest similar to the Angolan situation. In addition, the board is effectively appointed by politicians in terms of the Act[1873] and there are no measures to ensure its independence from the politicians and the bureaucrats.

Unlike its Nigerian and Angolan counterparts, South Africa's PetroSA is an integrated commercial entity. It is responsible for both the downstream and upstream exploitation of oil and gas resources in Africa and globally. According to Clarke, 'on a comparative note, PetroSA is by most measures a sound company, one of the better state oil companies on the continent'.[1874] He reckons that this NOC 'is capable of much more'.[1875]

[1873] See s 1 of the Nigerian National Petroleum Corporation Act (Chapter 320 Laws of the Federal Republic of Nigeria 1990).

[1874] See Clarke n 1307 *supra* at 356.

[1875] *Ibid*. However, as indicated in chapter 5 above, the company's reputation has been put at stake by allegations of corruption among its senior office bearers, and its alleged close links to the ruling ANC. More concerning is the fact that none of these allegations have been investigated independently and resolved.

In South Africa there is therefore a real separation of functions at least between the regulator and the commercial entity. The regulatory functions are performed by the executive arm of government, namely the Ministry of Mineral Resources through the designated agency, the PASA. The commercial functions on the other hand, are within the exclusive domain of the NOC, the PetroSA, as indicated above.

However, as indicated in chapter 5 above, what is worrying is that there is no clear separation of functions between two government ministries, namely the ministry of petroleum resources and the ministry of energy. South Africa has this unique situation in which the petroleum law, the MPRDA, regulates both the exploitation of solid minerals such as coal and gold, and fugacious petroleum resources such as oil and gas which are sources of energy. There could therefore be confusion as to who is the custodian of the MPRDA. Is it the DMR or the DER, or is it both? Or does it really matter?

In South Africa there is also a bizarre situation that although there is national framework legislation on environmental management in the form of the NEMA, the MPRDA also comprehensively deals with environmental management in the mineral and petroleum sector. This often results in confusion, red tape, and conflict between officials of the ministry of mineral resources and the ministry of environmental affairs as to who is the competent authority to deal with national environmental issues. While officials of the ministry of environmental affairs argue that NEMA confers on them the status of competent authority to deal with all environmental issues nationally, officials of the ministry of mineral resources argue that it is as a result of the nature and complexity of the mining and petroleum production sector that the MPRDA confers on them the status of competent authority to deal with these issues as they have the unique expertise in these areas. In other words, the regulation of environmental issues in the mining, mineral and petroleum industry is perceived as *sui generis*.

6.2.10 State/Government Participation Arrangements

As indicated in chapter 3 above, in Angola the state participates in the exploration and production of oil and gas resources through its exclusive national concessionaire,

Sonangol, by means of a normal business corporation or consortium, a PSA or a risk service contract. Sonangol is therefore involved in almost all petroleum operations due to the provisions of the Petroleum Activities Law, which require that any entity that wishes to carry out petroleum operations in Angola (except prospection activities) may only do so in association with Sonangol. Unless a dispensation is granted by the government, when Sonangol enters into any contractual arrangement it must have a majority interest in the venture.

The Angolan PSA is an instrument through which Sonangol requires a contractor to finance all exploration and production costs of the operation.[1876] Typical of the Norwegian carried-interest model, if production is successful, the contractor is paid for his cost recovery. All profits are shared as a production share between Sonangol and the contractor.[1877] Under the 1979 model PSA the government share of production ranged between 70 and 95 per cent. This was, however, subsequently reduced to between 40 and 55 per cent in subsequent model PSAs. In offshore and the deep water PSC state equity is normally between 0-20 per cent while in the Cabinda concession it is 41 per cent.

It is also important to note that a model PSA serves as a basis for all oil licences awarded to Sonangol as the sole concessionaire.[1878] According to Silva,

> Angola does probably represent the case where the PSC has functioned best. The country is also the only big exporting country that utilizes contracts of PSC and "rate of return" (ROR), which can be a factor of attractiveness to the IOCs, especially when the prices are below commodity.[1879]

[1876] See Kaiser & Pulsipher n 491 *supra*.

[1877] *Ibid*. See also Bindemann n 275 *supra* at 17.

[1878] See n 6723 *supra*.

[1879] See Silva CAP 'Production Sharing Contracts and Concessions in the Brazilian Subsalt Region: A Comparative Analysis' https://www.duo.uio.no/bitstream/handle/10852/.../ThesisFinal.pdf?...1 at 31(accessed 25 September 2013). According to Silva 'rate of return' is the rate of return on an investment,

As he continues 'this has the merit of effectively capping the reward to the IOC when oil prices are very high and maximising the rent to the host government.[1880] 'Another aspect in the Angolan PSC is the possibility through specific licenses to choose the operator and participating IOCs'.[1881]

As indicated in chapter 4 above, in 1973 Nigeria invoked its first participation agreement through its NOC, and thus acquired 35 per cent equity interest in all the oil and gas companies operating in Nigeria in the form of JV agreements. This was increased to 55 per cent in 1974 in the aftermath of OPEC resolutions mandating all its member countries to acquire majority participating interests, of 51 per cent in 1982, in petroleum. Due to jurisdictional problems between the NNOC and the Ministry of Mines and Power, in 1977,[1882] the NNOC was replaced with a new NOC, the NNPC.[1883] In 1979, the NNPC succeeded in raising the government equity participation in oil company shares to 60 per cent, thus strengthening its bargaining power, as it participates in all phases of petroleum development with specific agreements regarding profit sharing and conditions for royalty collection. Through the NNPC, the Nigerian federal government is therefore a majority shareholder in all JVs in the country. Like in Angola, the state in Nigeria participates in the oil exploration and production activities through the NOC, the NNPC, by making use of several contractual arrangements including PSCs, service agreements and modern concessions.

In South Africa the issue of state participation is different from that of Angola and Nigeria. The state only participates indirectly in the exploration and production of oil and gas through PetroSA in which it is a majority shareholder. There is no direct active

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expressed as a percentage of the total amount invested. It is usually, but not always, calculated annually.

[1880] *Ibid*.

[1881] *Ibid*.

[1882] See OPEC's Resolution XVI Article 90 of June 1968.

[1883] See n 1076 *supra*.

participation in the form of a consortium, a JV, a PSC or a service contract as is the case with both Angola and Nigeria.

6.2.11 Contractual Arrangements

Both Angola and Nigeria utilise contractual arrangements for the exploration, development, and production of oil and gas resources: a concession/JV, a PSC, and a risk service contract. A concession or JV is an arrangement between Sonangol and IOCs. IOCs operating under this arrangement have a concession provided by Sonangol to explore certain blocks. Under a PSC Sonangol is the holder of the concession, and appoints a contractor to conduct petroleum operations in the area. In accordance with carried-interest system, the contractor provides the funds and bears the risks until a commercial production is achieved. Production is allocated in barrels to costs, then taxes and finally profit using a predetermined sharing formula. Under a risk service contract the contractor has no title to oil produced but undertakes exploration, development, and production activities on behalf of Sonangol. The contractor is reimbursed and remunerated from the sale of oil produced.

As indicated earlier, similarly to Angola, the most common forms of petroleum contracts in Nigeria include JVs, PSCs, and risk service contracts. A JVs is an arrangement between the NNPC on behalf of the Federal Government of Nigeria and IOCs. IOCs operating under this arrangement jointly own and develop various oil and gas concessions and contribute towards costs and subsequently derive benefits based on their equity participation in an oil block. As indicated in chapter 4 above, the parties typically sign a JOA which governs relations amongst themselves. Under Nigerian PSCs the Federal Government is the holder of the concession (one or many blocks), and appoints a contractor to conduct petroleum operations in the area. The contractor provides the funds and bears the risks until commercial production is achieved. Production is allocated in barrels to royalty, then taxes, then costs and finally profit, using a predetermined sharing formula. Finally under a risk service contract, the

contractor has no title to the oil produced but undertakes exploration, development and production activities on behalf of the concession holder. The contractor is reimbursed and remunerated from the sale of oil produced. The contractor is subject to tax under the Companies Income Tax Act, since it is carrying out operations on behalf of the concession holder.

The issue of state/government participation is South Africa is different. Unlike in Angola and Nigeria where the state through contractual arrangements directly participates in the exploitation and production of petroleum resources, in South Africa the state only participates indirectly through the state owned oil company, the PetroSA. Although the state is the main shareholder,[1884] PetroSA is a purely commercial entity with no regulatory powers. As indicated earlier, the regulating powers vest in the DMR and its designated agency, PASA, thus promoting the separation of functions between the regulator and the commercial entity.

6.2.12 Comparative Fiscal Systems

As Galadima and Luter correctly indicates, 'the objectives of a host government should be to design a stable, flexible and neutral fiscal system that favours investment and allow government's mutual interests by providing an equitable arrangement for both less and highly profitable discoveries'.[1885]
According to the *Revenue Watch Institute*, fiscal terms for oil and gas, among others, must be structured around four considerations or important characteristics of extractive industries, namely (1) petroleum resources are not infinite and governments must therefore generate returns that are sufficient to compensate the country for the value of

[1884] See the also *the Report of the Public Protector* n 1642 *supra*.

[1885] See Galadima A & Luter L 'Comparative Assessment of Proposed Fiscal Models for Offshore Deep Water Petroleum Exploration in Nigeria' 39(2011) *Elixir International Business Management* 5078 available at www.elixirpublishers.com (accessed 23 August 2013).

the asset being depleted; (2) extractive projects requires significant upfront investments before revenues begin to flow; (3) project risks, including geological risks, price variations, technical uncertainties, and political risks, are often significant; and (4) extractive revenues have the potential to represent a dominant share of a country's public revenues.[1886]

It is against these characteristics that the petroleum fiscal terms of Angola, Nigeria and South Africa are analysed and compared in this chapter. This is done in order to consider how the different systems empower the governments to enforce the terms that capture the maximum benefit for the state, minimise the risk of corruption, non-compliance and overuse of loopholes. There is a variety of fiscal instruments including bonuses, rentals, royalties, production sharing arrangements, carried-interest provisions, corporate income taxes, and special taxes.[1887]
As Khelil highlights, it is important to note that-

> [i]n a competitive world, areas with the least favourable geology, the highest costs, and the lowest wellhead prices would be expected to offer the best fiscal terms—and areas with the best geology, the lowest costs, and the highest wellhead prices the toughest terms. That pattern of competition does in fact exist. Countries with unfavorable conditions typically offer very favourable or favourable terms, and countries with favourable conditions, such as the oil-exporting countries, demand tough or very tough terms.[1888]

In the next section it is sought to establish whether the statement is correct in the context of Africa, with particular reference to Angola, Nigeria and South Africa. This is also done by looking at the different petroleum fiscal instruments.

6.2.12.1 Bonuses

[1886] See *Revenue Watch* 'Oil, Gas and Mining Fiscal Terms' available at www.revenuewatch.org (accessed 22 August 2013).

[1887] See Khelil n 411 *supra*.

[1888] *Ibid*.

Petroleum extraction bonuses include signature bonuses, production bonuses, and in some instances, discovery bonuses. A signature bonus is a once-off payment made by an IOC or MOC upon the finalisation of a contract, the launch of activities, or the achievement of certain goals laid out in the law or contract.[1889] Thus signature bonuses are paid to the government as a one-time payment when the contract is signed. It is important to note that signature bonuses do not take the profitability of a project into account.

Production bonuses, on the other hand, are continual fixed payments which become payable only when a predetermined threshold in production level is reached.[1890] In Nigeria PSCs and service contracts are subject to non-refundable signature bonus payments which are the main pre-production payments.[1891] In terms of PSC production bonuses are also payable to the state. Signature bonuses are paid immediately after the completion of negotiations and signing of a PSC while production bonuses are paid when production from a specific contract area reaches a particular threshold.[1892] As Galadima and Luter indicate, 'the amounts [of bonuses] are steadily increasing. In the early 1990's the PSCs contractors paid $1 million each and $20 million in 1999. The signature bonuses for post-2000 were up to $30 million. A value of US $123 was paid in respect of Block 1 of Nigeria-Sao Tome Principe Joint Development Zone, 2003'.[1893]

Nigeria therefore fully considers the four important characteristics of the extractive industry, namely the infinite nature of natural resources in general and petroleum

[1889] See *Revenue Watch* n 1894 *supra*. See also Silva n 1887 *supra* at 49.

[1890] See Silva n 1887 *supra* at 49.

[1891] See Omorogbe n 1037 *supra* at 73. See also Galadima & Luter n 1893 *supra* at 5079.

[1892] See an article on the Energy Mix Report 'The Nigerian Production Sharing Contract: An Overview' available at http://energymixreport.com/the-nigerian-production-sharing-contract-an-overview/ (accessed 28 August 2013).

[1893] See Galadima & Luter n 1893 *supra* at 5079.

resources in particular and the need for government to generate sufficient returns from the exploitation of these resources; the fact that the extraction of oil and gas resource is a highly capital intensive project which requires sufficient upfront capital costs; that extraction revenues have a potential to represent a dominant share of the state's public revenue.

As indicated in chapter 3, in Angola, the Law on Taxation of Petroleum Activities which regulates fiscal issues provides only for taxes. There is no provision for signature bonuses, production bonuses or royalties. However, under the offshore and deep water PSC and the Cabinda concession, Angola does charge signature bonuses on IOCs or MOCs. As Silva indicates,

> even though the signature bonus needs to be paid in Angola, the simple fact that Angola is the only large oil producing country in Africa that utilizes the "rate of return" as a basis of calculation of the "profit oil", makes Angola a very attractive investment. Angola can be considered attractive also compared to other African countries where the royalties arrive at 20%, but where the "profit oil" is calculated based on the total volume produced.[1894]

It is, however, regrettable that bonuses are not provided in the sector specific legislation. This is an important fiscal issue which should have been provided for in legislation. It is not safe to rely on mere negotiation when entering into contractual arrangements such as PSCs. Although substantial signature bonuses have been paid in the past it is clear that Angolan's priority is on encouraging fast and maximum production, rather than long term resource management. It could thus be argued that the Angolan petroleum fiscal system gives little consideration to the fact that petroleum resources are not infinite, accepting to lose revenue in order to maximise production which runs contrary to the recommendations made by Khelil above.[1895] It is also contrary to Khelil's argument that petroleum extracting countries will always demand tough or very tough terms.[1896]

[1894] See Silva n 1887 *supra* at 31.

[1895] See n 411 *supra*.

As indicated in chapter 5, in South Africa, there are also no signature bonuses, or production bonuses on the exploration and production of oil and gas resources in South Africa.

For South Africa with its limited petroleum resources, it is both strategically and economically sound not to charge IOCs any bonuses, be it signature bonuses or production bonuses. Otherwise this would discourage investment in the country which desperately needs the expertise of IOCs to explore for, develop and produce its petroleum potential and thus help to improve on its current energy crises.

6.2.12.2 Royalties

Royalties are payments made to the government to compensate it for the right to extract (and purchase) non-renewable natural resources.[1897]

Nigeria and South Africa operate on a royalty system. In Angola royalties are generally not paid under Law 13/2004.[1898] Taxable income is determined according to the rules set in each block PSA and Concession Decree, if signed before this Law came into effect. In Angola a royalty of 20 per cent is levied on gross production in the Cabinda concession. In Nigeria, royalty oil is the quantum of oil allocated to the NNPC that will generate proceeds equal to the actual royalty payable each month and the concession rent payable each year. In accordance with section 7 of the Deep Offshore and Inland Basins Production Sharing Contracts Decree 1999, this allocation to the NNPC is for payment on behalf of itself and the IOC. The royalty payable for deep offshore and inland basin PSCs is determined in accordance with section 5 of the Deep Offshore Decree 1999, while the royalty for onshore and shallow water PSCs is determined by the provisions of the Petroleum (Drilling and Production) Amendment Regulations 1969.

[1896] See Khelil n 411 *supra*.

[1897] See Hossain n 405 *supra*.

[1898] See n 1795 *supra* at 29.

Royalties paid are based on production and correlate with water depth, and they essentially decrease as water depth increases. This confirms the statement above by Khelil and complies with all the four considerations or important characteristics of extractive industries as identified by *Revenue Watch.*

As indicated in chapter 4 above, in Nigeria, royalty[1899] on oil is 20 per cent for onshore production and 18 and half per cent for offshore production where the water depth is less than 100 meters.[1900] Offshore production beyond that point bears a royalty of 16 per cent, thus reflecting an acknowledgement of higher costs for offshore production.[1901]

As indicated in chapter 5 above, South Africa has also adopted a concessionary system for oil and gas regulation, which includes features such the imposition of taxes and royalties. The South African royalty system is statutorily 'fixed', in terms of the MPRDA, the Royalty Act;[1902] and the Administration Act.[1903] There is no bidding or negotiation of the statutorily fixed fiscal terms. Thus the South African petroleum fiscal regime consists primarily of corporate tax, various indirect taxes, and a mineral and petroleum royalty regime.

Section 86(2)(e) of the MPRDA, as amended,[1904] provides for the payment of royalties to the state by the holder of a production right in terms of any relevant law. Section 3 of the MPRDA also provides that 'the state royalty must be determined and levied by the

[1899] A royalty is amount payable to the owner of a natural resource as compensation for the exploitation of a non-renewable and irreplaceable natural resource. See Omorogbe n 1037 *supra* at 71.

[1900] See Omorogbe n 1037 *supra* at 72.

[1901] *Ibid*.

[1902] See n 1314 *supra*.

[1903] See n 1314 *supra*.

[1904] As amended by s 64(b) Mineral and Petroleum Resources Amendment Act No. 49 of 2008.

Minister of Finance in terms of an Act of Parliament'.[1905] The Royalty Act was thus enacted to give effect to this provision.

The Royalty Act provides for the imposition of royalty based on gross production sale. It is important to note that, with particular reference to petroleum, a royalty is imposed in respect of the transfer of refined petroleum (oil or gas at inlet of refinery)[1906] only. The applicable royalty rate is determined by multiplying the gross sale of the extractor in respect of that petroleum resource during the year of assessment by the percentage determined in accordance with the following formula:[1907] 0,5 + [earnings before interest and taxes/ (gross sales in respect of refined petroleum resource x 12.5)] x 100.[1908]

It is important to note that although like Nigeria, South Africa is also a royalty based jurisdiction; the South African royalty system differs from that of Nigeria in the sense that in Nigeria both signature bonuses and production bonuses are payable by investors and the payment of bonuses is based on actual production. In South Africa, on the other hand, the levying of royalty is based on the transfer or sale of gross production.

Both the South African and Nigerian governments therefore enjoy the advantages of receiving payment in the form of royalties from IOCs. However, Nigeria benefits much more from these royalties as the royalties are charged not only upon signature of a deal but also on the actual production of petroleum resources. Similar to the position with regard to the issue of bonuses, due to the country's limited comparative advantage on petroleum resources, the South African royalty system, based on transfer or gross sales, is in line with the country's strategic objectives of ensuring that petroleum products once

[1905] See s 3 of the MPRDA as amended by the Mineral and Petroleum Resources Amendment Act No. 49 of 2008.

[1906] See schedule 1 of the Royalty Act.

[1907] See s 3(1) of the Royalty Act.

[1908] See s 4(1) of the Royalty Act.

refined, are transferred in a responsible manner and in line with the broad government objectives of promoting local beneficiation or value addition of the scarce resources.[1909]

6.2.12.3 Petroleum Income Taxation

The Law on Taxation of Petroleum Activities was promulgated to regulate fiscal issues relating to petroleum operations in Angola.[1910] These include tax charges such as a petroleum production tax, a petroleum income tax, and a petroleum transaction tax.[1911] The petroleum production tax is levied on entities conducting petroleum operations in Angola at the rate of 20 per cent on crude oil and natural gas measured at the wellhead less the quantities consumed by petroleum operations.[1912] The rate of taxation may be reduced for marginal or deep-water offshore fields. In Angola the petroleum income tax, on the other hand, is payable at a rate of 50 per cent, in case of PSAs, and 65.75 per cent, in cases of other contractual arrangements.[1913] It is important to note, however, that the applicable rate is 35 percent in both situations for Angolan public companies and private companies wholly owned by Angolan citizens. When petroleum operations are carried out under a PSA, Petroleum Income Tax is the only tax in respect of petroleum production, and the Petroleum Production Tax and Petroleum Transaction Tax do not apply. Where petroleum operations are carried out under other contractual arrangements the amount of Petroleum Production Tax and Petroleum Transaction Tax are deductible in determining taxable income for the purposes of the Petroleum Income Tax. The petroleum transaction tax is payable at a flat rate of 70 percent of revenue.[1914]

[1909] See s 26 of the MPRDA.

[1910] See article 3 of the Law on Taxation of Petroleum Activities.

[1911] See article 4 of the Law on Taxation of Petroleum Activities.

[1912] See article 14 of the Law on Taxation of Petroleum Activities. This rate may be reduced to as little as 10 per cent in cases petroleum exploitation in marginal fields; petroleum exploitation in offshore of depths exceeding 750 meters; and petroleum exploitation in onshore areas which the government has previously held to be difficult to reach.

[1913] See article 41 of the Law on Taxation of Petroleum Activities.

[1914] See article 48 of the Law on Taxation of Petroleum Activities.

In the offshore and deep water PSC a normal tax of 50 is levied on an investor's profit share.

This Law also regulates general fiscal issues such as ring fencing,[1915] and cost recovery rules.[1916] It also deals with the contribution for the training of Angolan nationals;[1917] surface tax,[1918] and exemptions.[1919] A surface fee applies to the concession area or to the development areas if an agreement entered into under the Petroleum law provides for such a surface fee to be paid. A surface charge is due at an annual amount of USD 300 per Km2. As far as contribution for the training Angolan nationals is concerned, oil companies are required to pay a training contribution to the Angolan state to assist in the financing for training Angolan individuals.[1920] The training contribution is imposed differently for oil companies (and depending on the phases of the petroleum activities carried out) and for the suppliers of goods and services to oil companies. The annual rate for a company that holds a prospecting licence is $100,000, while for a company in the production stage it is 15 cents per barrel produced during the year.

[1915] See article 5 of the Law on Taxation of Petroleum Activities.

[1916] See article 21 of the Law on Taxation of Petroleum Activities.

[1917] See article 57 of the Law on Taxation of Petroleum Activities.

[1918] See article 79 of the Law on Taxation of Petroleum Activities Law.

[1919] See article 11 of the Law on Taxation of Petroleum Activities.

[1920] See article 57 the Law on Taxation of Petroleum Activities. Decree-Law 17/09 defines the amount of the levy for the training of Angolan personnel, as well as other rules, including collection thereof. Oil companies and their service providers must contribute to the training of Angolan employees as follows:

• USD 100,000 – for oil companies that only have research licenses;
• USD 300,000 – for oil companies that are carrying out research activities;
• USD 0.15 per oil barrel – for oil companies that are in a production stage;
• USD 0.15 per oil barrel – for oil companies that carry out oil refining activities;
• 0.5% of the annual turnover – for companies that carry out storage, transportation; distribution and commercialization activities of crude oil; and
• 0.5% of the values of contracts – for companies that render services to oil companies on a regular basis [Article 12 Decree-Law 17/2009].

In Nigeria, the PPTA applies exclusively to the taxation of incomes of companies engaged in petroleum operations. Initially enacted in 1959, the PPTA has undergone several amendments. A petroleum profit tax (PPT) is levied in respect of petroleum operations under section 17 of the Petroleum Profits Tax Ordinance (No. 15 of 1959); and surtax is levied under section 17A of the Petroleum Profit Tax Ordinance. Rates are 65.75 per cent for petroleum operations carried under any contract other than a PSC over five years while they are amortising preproduction costs, after which time the tax rate is 85 per cent for petroleum operations carried out under a JV with the NNPC or under any contract except a PSC in the first five years during which the company has not amortised all preproduction capitalised expenditure.[1921] For companies operating on a PSC with the NNPC, petroleum profit is levied at a flat rate of 50 per cent applies.[1922]

In South Africa the Income Tax Act[1923] is the general income taxation legislation and thus applies to oil and gas companies, as it applies to any other corporate entity. A standard corporate income tax (CIT)[1924] rate of 28 per cent and a secondary tax on companies (STC) at 10 per cent is levied on petroleum production companies.[1925] In terms of this Act, the holder of a production right is liable for income tax payable to the South African Revenue Services (SARS) on the annual taxable income derived by such

[1921] See Omorogbe n 1037 *supra* at 70. See also Ajayi n 1006 *supra* at 21.

[1922] *Ibid*.

[1923] See n 1311 *supra*.

[1924] As Farnejad indicates 'CIT is a tax on profits which more directly reflects on product price cycles and is normally paid by every corporate entity… The CIT approach is actually targeted at economic rents and is therefore economically superior to royalties because it allows oil companies to deduct their investment costs from their tax base'. See Farnejad H 'How Competitive is the Iranian Buy-Back Contracts in Comparison to Contractual Production Sharing Fiscal Systems?' available at http://www.dundee.ac.uk/cepmlp/car/html/CAR10_ARTICLE16B.PDF (accessed 17 April 2013) p 5.

[1925] See n 1311 *supra*.

holder from the sale of petroleum (referred to in the Income Tax Act as 'natural oil') or any other product of exploration operations. In addition, the taxation of oil and gas companies as defined is regulated by the Tenth Schedule to the Tax which provides for specific treatment of various items applicable to these companies.[1926] However, the Tenth Schedule confirms that the rate for oil and gas companies in respect of their oil and gas income shall not exceed the standard CIT of 28 per cent.[1927] A dividend withholding tax of 5 per cent of their distribution of oil and gas income is also payable by oil companies. The tenth schedule contains various specifications relating to oil and gas companies including a deduction of oil and gas all exploration and production expenditure and losses from the companies' oil and gas income; a deduction of 100 per cent of capital exploration expenditure in terms of an oil and gas right; a deduction of 50 per cent of capital production expenditure in terms of an oil and gas right; and the general ring fencing of exploration and production losses against oil and gas income.

6.2.12.4 Production Sharing

As indicated earlier, In Nigeria under PSCs, the oil production is shared between parties, after cost, taxes, and other expenses have been paid, and the government's share is thus a source of revenue for the federal government albeit currently insignificant. In terms of production sharing, Nigeria is an example of a sliding scale based on cumulative rather than daily production. On a cumulative production level of 0-350 mmbbl, the contractor's profit share is 80 per cent; on a cumulative production level of 351-750 mmbbl, the contractor's profit share is 65 per cent; on a cumulative production level of 751-1000; the contractor's profit share is 55 per cent; on a cumulative production level of 1001-1500 mmbbl, the contractor's profit share is 50 per cent; on a cumulative

[1926] See http://www.pwc.com/en_GX/gx/oil-gas-energy/publications/pdfs/pwc_oil_and_gas_tax_guide_for_africa_2013.pdf (accessed 10 October 2013).

[1927] *Ibid*.

production level of 1501-2000 mmbbl, the contractor's profit share is 40 per cent; and above 2000 mmbbl, the contractor and NNPC meets and agree on profit sharing.[1928]

In the Angolan offshore and deep water PSC production sharing is based on a sliding scale linked to the investment rate of return (IRR) of each field. The state share has increased from 20 per cent – 85 per cent. However, blocks 2/3 have different terms.

Since 1978 Angolan legislation requires Sonangol to take a minimum of 51 per cent for all contracts except contracts in respect of water depth of more than 150 meters in which case the 51 percent is reduced.[1929] Sonangol is awarded, by Concession Decree, 100 per cent of a contract and Sonangol then takes a percentage in a group acquiring the PSC, working as a full partner, paying its share of exploration and production costs. Sonangol's production share varies from 0 per cent to 25 per cent. This will fluctuate depending on total production.

The biggest difference is therefore that Nigeria's production share is based on production, albeit cumulative rather than daily production; while Angola production share is based on IRR. There is no provision for production sharing in the South African legislation.

6.2.12.5 Cost Recovery

In Angola the limit of cost recovery is 50 per cent of production while in Nigeria such a limit does not exist. South Africa does not have cost recovery at all.

6.2.13. Requirements of Local Content: A Comparative Perspective

[1928] Decree 9 of the Deep Offshore and Inland Basin Production Sharing Contracts dated 23 March 1999.

[1929] See Law 13/78 of 26 August 1978.

The issue of local content has become very important in Africa and abroad[1930] recently. In Nigeria there is a special legislation dedicated to local content in the context of oil and gas, namely the Local Content Act.[1931] In Angola local content is catered for in the petroleum law and the process of achieving this is referred to as 'Angolanisation'. In South Africa, the BEE policy is an equivalent of Nigeria's local content and Angola's 'Angolanisation'.

6.2.13.1. The Nigerian Local Content Act

Nigerian independent contractors are entitled to first consideration and preference in the award of oil blocks, oil fields licences, oil lifting licenses, and in all projects for which contract are to be awarded in the Nigerian oil and gas industry subject to fulfilment of such conditions as may be specified by the Minister.[1932] The Local Content Act also requires exclusive consideration to be given to Nigerian indigenous service companies which demonstrate ownership of equipment, Nigerian personnel and capacity to execute such work to bid on land and swamp operation areas of Nigeria for contracts contained in the schedule of services to the Act.[1933] In bidding for any license, permit or interest and before carrying out any project in the industry, an operator is required to submit a

[1930] For example Brazil also has a policy on local content. See generally Prochnik V 'Brazil's Local Content Industrial Policy for the Oil and Gas Supply Chain: the Case of Equipment Purchase for Process Control' available at http://www.academia.edu/3137171/BRAZILS_LOCAL_CONTENT_INDUSTRIAL_POLICY_FOR_THE_OIL_AND_GAS_SUPPLY_CHAIN_THE_CASE_OF_EQUIPMENT_PURCHASE_FOR_PROCESS_CONTROL (accessed 08 November 2013); Landau GD 'Local Content in Brazil' available at http://www.menas.co.uk/App_Data/elib/Local%20Content%20in%20Brazil%20-%20May%202008.pdf (accessed 08 November 2013).

[1931] See n 1109 *supra*.

[1932] See s 3(1) of the Local Content Act n 1109 *supra*. See also Uwanna n 1100 *supra* at 1.

[1933] See s 3(2) of the Local Content Act n 1109 *supra*.

Nigerian Content Plan to the Nigerian Content Development and Monitoring Board[1934] demonstrating compliance with the Nigerian content requirements of the Act.[1935] This is done as part of the conditions for bidding a license, permit or other oil and gas interest. Such a plan, showing compliance with the Nigerian content requirements of the Act, is also required to be submitted before the execution of any project in the industry. The plan must contain provisions giving-

- first consideration to the utilisation of Nigerian goods and services; and
- first consideration for the training and employment of Nigerians in the work programme for which the plan was submitted.[1936]

The Board shall assess and review the plan and if it is satisfied that the plan complies with the provision of the Act, issue a certificate of authorisation to the operator for the project in question.[1937]

The Local Content Act specifically provides that all projects or contracts whose total budget exceeds $100 million, shall contain a labour clause which mandates the use of a minimum percentage of Nigerian labour in specific cadres as may be stipulated by the Board indicating the minimum number of Nigerians to be involved.[1938] It further stipulates that all operators and companies in the Nigerian oil and gas industry must employ only Nigerians in their junior and intermediate cadre or any other corresponding grades designated by the operator or company.[1939] This extends to professional and technical services.[1940]

[1934] This Board is established in terms of s 69(1) read together with s 4 of Local Content Act n 1109 *supra* in order to guide, monitor, coordinate and implement the provisions of this Act.

[1935] See s 7 of the Local Content Act n 1109 *supra*.

[1936] See s 10(1) of the Local Content Act n 1109 *supra*.

[1937] See s 8 of the Local Content Act n 1109 *supra*.

[1938] See s 34 of the Local Content Act n 1109 *supra* and Uwanna n 1100 *supra*.

[1939] See s 35 of the Local Content Act n 1109 *supra* and Uwanna n 1100 *supra*.

[1940] See s 42 and 43 of the Local Content Act n 1109 *supra*.

According to this law, fabrication and welding activities of the operators and contractors must be carried out in-country.[1941] The Act also provides that any entity engaged in any business or transaction in the Nigerian petroleum industry requiring legal services may only retain the services of a Nigerian legal practitioner or firm(s) of Nigerian legal practitioners whose office is located in any part of Nigeria.[1942] The operators are also expected to utilise Nigerian insurance companies and will only use offshore companies with the pre-approval of the National Insurance Commission.[1943] It also provides that the operators, contractors and subcontractors are required to maintain bank accounts within Nigeria retaining a minimum of 10 per cent of the revenues accruing from the Nigerian operations.[1944]

Of particular importance for this study, are the provisions affecting the awarding or allocation of licenses. Section 16 of the Local Content Act provides that in order to ensure that the local companies remain competitive; the award of contracts shall not be solely based on the principle of the lowest bidder. Where a Nigerian indigenous company has capacity to execute the works tendered, it shall not be disqualified exclusively on the basis that it is not the lowest financial bidder, provided value does not exceed lowest bid by 10 per cent.[1945] Furthermore, section 15 of the said Act provides that all project promoters and operators shall consider Nigerian content when evaluating any bid. Where bids are within 1 per cent of each other at commercial stage, the bid containing highest level of Nigerian content shall be selected, provided Nigerian content in the selected bid is at least 5 per cent higher than the closest competitor. This is typical of the British discretionary licencing method as discussed in chapter 5 above.

[1941] See s 53 of the Local Content Act n 1109 *supra*.

[1942] See s 51(1) of the Local Content Act n 1109 *supra*.

[1943] Section 49(1) of the Local Content Act n 1109 *supra*.

[1944] Section 52(1)(f) of the Local Content Act n 1109 *supra*.

[1945] *Ibid*.

The Local Content Act[1946] also deals with some fiscal issues. Section 48 of this Act provides that the Minister of Petroleum Resources shall consult the relevant arms of government on appropriate fiscal framework and tax incentives for foreign and indigenous companies which establish facilities, factories, production units or other operations in Nigeria for purposes of carrying out production, manufacturing or for providing any services and goods otherwise imported into Nigeria. This provision opens a window of fiscal incentives and opportunities for companies that establish facilities, factories, and production units in Nigeria.

The Act also deals with first consideration for employment and training of Nigerians,[1947] training of Nigerians,[1948] technology transfer, joint qualification systems,[1949] the setting up of the Nigerian content consultative forum,[1950] among others.

Atsegbua argues that with the introduction of the Local Content Act, an antidote has been found for local participation in the vibrant Nigerian oil and gas sector.[1951] He concludes that, similar to Saudi Arabia, Venezuela and Kuwait, the local content law will go a long way in empowering indigenous oil and gas companies and assist Nigeria in developing the technical capacity for the industry.[1952]

Although the intention of the Local Content Act are noble and in accordance with best practice globally, it remains to be seen whether practical implementation will result in the

[1946] See Uwanna n 1100 *supra*.

[1947] See s 28.

[1948] See s 30.

[1949] See s 56.

[1950] See s 57.

[1951] See Atsegbua n 1109 *supra*.

[1952] *Ibid*.

fulfillment of its main objectives of increasing sustainable and meaningful participation of Nigerians in the oil and gas industry.

6.2.13.2. The South African BEE Requirements

South Africa's BEE policy which is aimed at redressing the notorious racial and gender imbalances that were perpetuated by South Africa's unfortunate past of institutionalised and systematic policy of apartheid, by ensuring that HDSAs, including black people, local communities, and women, are able to enter, and actively participates in, the petroleum industry; is similar to both the Nigerian and the Angolan local content policy framework.

In relation to the granting of an exploration right, section 80(1)(g) provides that the Minister must grant such a right if the granting of such a right will further the objects referred to in section 2(d) and 2(f); namely to substantially and meaningfully expand HDSAs, including women and local communities to enter into and actively participate in the mineral and the petroleum industries and to benefit from exploitation of the nation's mineral and petroleum resources; and to promote employment and advance the social and economic welfare of all South Africans. This is echoed in section 84(1)(i)[1953] of the MPRDA which adds an absolute requirement for compliance with the Charter contemplated in section 100[1954] of the MPRDA for the granting of a production right.

[1953] Section 84(1)(i) of the MPRDA provides that the Minister of Mineral Resources must grant a production right if the granting of such right will further the object referred to in s 2(d) and (f) and in accordance with the Charter contemplated in s 100 and the prescribed social and labour plan.

[1954] The relationship between the Charter and recently published Codes of Good Practice, published under the Broad-Based Black Economic Empowerment Act, 2003, remains unclear. The Codes of Good Practice are intended to be the yardstick against which all industry BEE initiatives are measured. The Charter and Scorecard, however, differ significantly from the Codes of Good Practice and the detailed 'Generic Scorecard' for measuring BEE compliance that the Codes specify. It is not clear to what extent the Codes of Good Practice will affect the award of rights under the MPRDA and the conversions of old order rights during the transitional

6.2.13.3. Local Content in Angola: 'Angolinisation'

In Angola, the drive towards local content is called 'Angolanisation'.[1955] In Angola there is no specific or legal definition of what local content or the Angolanisation policy is. According to the *PricewaterhouseCoopers* it can be defined as (a) the need of Angolan individuals and/or companies to acquire majority shareholding of companies operating and/or providing services to the oil sector; and (b) an obligation for service provider companies to recruit and train a minimum percentage of Angolan citizens and provide the same employment conditions to Angolan citizens and expatriates. Although there is no definition, direct reference in to local content is made in several laws and decrees including the Petroleum Law. Article 26 of the 2004 Law on Petroleum Activities requires the government to "adopt measures to guarantee, promote and encourage investment in the petroleum sector by companies held by Angolan citizens." Article 27 requires IOCs to acquire Angolan goods and services whenever the quality is the same and the price is not more than 10 per cent of the foreign or international price. Article 86 requires companies operating in Angola to include Angolans at every level of staff provided that they possess the required expertise. Reference is also made to support for the professional education of Angolans.

Other reference to local content or 'Angolanisation include: Dispatch 127/03, dated 25 November 2003, issued by the Ministry of Petroleum, which establishes the policy concerning the contracting of goods and services for the oil sector. The main purpose of the referred Dispatch is to protect the incorporation of the local entrepreneurs into the oil sector. In addition, this Dispatch also states in its article 2 and 2.1, that the services

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phase. However, the Minister is presently applying the Charter for purposes of measuring BEE compliance in awarding rights, granting conversions and approving the transfer of rights in terms of s 11 of the MPRDA.

[1955] See the International Energy Agency *Angola: Towards an Energy Strategy* (OECD 2006) 107.

listed therein should be carried out through association between foreign and national companies. In its article 16 it is clearly defined that preference should be given to national companies, provided that their fee quotes are not 10 per cent than the fee quotes of the others.

Similarly Decree 48/06, dated 1 September 2006, clearly states in its articles 6, and 5, the definition of an Angolan company, which basically consists of having a no less than 51 per cent of the capital held by Angolan individuals or entities. This Decree also refers in article 16 and 9 that the Ministry should prepare and keep an updated list of Angolan entities that provide services and goods to the oil sector, which must be consulted by the operators whenever a public bid is released.

As a diversified company with several subsidiaries, Sonangol's subsidiaries enjoy 'preferential treatment …in the procurement of goods and services to oil companies operating in Angola'.[1956] The company through its subsidiaries has entered into several JVs with a host of FOCs[1957] as part of its 'Angolanisation' campaign.[1958]

In addition there is a certain license 'involving small companies or companies controlled by Angolan citizens'. The objective of these licences is to contribute to the development of small local companies.[1959]

[1956] *Ibid*.

[1957] These include Sonangol-Sinopec International (SSI), which recently paid a record US$2.2 billion for a 40 percent controlling stake in parts of offshore oil blocks 17 and 18 (Africa Confidential 7.7.2006); 32 Sonangol SGPS, a drilling services company; Sonasing, a joint-venture service company for the packaging and storage of crude; Wapo Angola, a services provider for the oil industry; Technip Angola, Petromar, Sonamet, Sonansurf and Sonamer, oil services companies; AngloFlex, a manufacturer of umbilicals and pipelines for underwater production systems in the oil and gas industry; the *Banco Africano de Investimento,* a bank; and many others. See de Oliveira n 702 *supra* at 604.

[1958] *Ibid*.

[1959] See Silva n 1887 *supra* at 32.

6.2.14. Benefits Enjoyed by, Due to or Allocated to Local Communities

In Nigeria the current legal arrangement regrettably excludes local communities and local authorities from oil exploration and production.[1960] This legal position has been judicially approved in *AGV V Abia State*.[1961] As noted by Sagay, the issue of denying the people of the oil bearing communities the right to any direct access to the resources found on their land and their attendant exclusion from any control over the same is contentious and explosive in the national political agenda of Nigeria.[1962] Asada also points out that 'the law is not clear on the emphatic issue of compensation to individuals or community on whose land oil was discovered and taken away by government. This issue of compensation has for quite some time now, threatened the peaceful coexistence of this [Nigerian] nation as a sovereign state'.[1963] According to Sagay,

> having been dispossessed for more than 30 years of their rights over their natural resources, the nationalities of the Niger-Delta are now demanding those rights back. This provision has merely worsened an already tense situation. It is most unlikely that the good government, order and peace of Nigeria (see s 4(2)) of the 1999 Constitution) can be achieved, if the Federal Government, claims 100% ownership of Niger-Delta's natural resources. Obviously, this item (39 on the Exclusive Legislative list) and section 44(3) have to be radically modified or repealed completely if there is to be unity progress and justice in this country.[1964]

[1960] See Aturu n 904 *supra* at 2.

[1961] See n 987 *supra* at 542.

[1962] See Sagay I 'A General Overview of the 1999 Constitution' a paper presented at a retreat organised for the Joint Constitutional Committee Review of the National Assembly in Minna on the 16th of January 2009.

[1963] See Asada n 896 *supra*.

[1964] See Sagay n 988 *supra* as quoted by Aturu n 904 *supra* at 2.

In Angola the provinces of Zaire and Cabinda are assigned the equivalent of 10 per cent of the tax income from the oil activity in each province. This revenue is allocated with a view to enabling these provinces to benefit more directly from oil activities. However, it is unclear whether these funds represent additional money for Zaire and Cabinda or whether they simply replace money earmarked for regional budgets. What's more, the 10 per cent is unreliable and the distribution policy does not account for the inflated cost of living resulting from an inflated local market because of the industry's presence in the regions. Among the remaining provinces, the revenue distribution policy has increased inequality and animosity, as there is no nationwide revenue distribution mechanism.

In South Africa there is minimal or no oil and gas production and therefore very insignificant (if any) revenues accruing from oil and gas exploitation. Most of the exploration activities are also offshore which means if production were to be realised, no community could claim that it is entitled to the revenue due to the fact that it is an oil producing community. However, as there is exploration for shale gas, communities within the Karoo might claim that revenues that arise from any possible production of such gas should be distributed to them. A challenge in this regard could be that as mineral, mining and petroleum fall under the competency of the national government and not the provincial or local government, revenues flowing from activities related to the exploitation resources within these competencies should be given to the national government for equal distribution throughout the country. It is also important to note that South African mineral law does make express provision for direct resources revenue allocation,[1965] as a result of the application of the BEE policy.

[1965] It is only the Royal Bafokeng community which directly receives and enjoy mineral resources revenues through its Royal Bafokeng Aministration. See generally Thornhil C and Selepe MM 'The Role of the Royal Bafokeng Administration in the Promotion of Municipal Service Delivery' 45(1.1) (June 2010*) Journal of Public Administration* 162.

6.2.15. Comparative Environmental Management Systems

In Nigeria a gas penalty fee of NGN 10 per standard cubic feet was introduced to curb gas flaring. Although the PIB does not state the penalty for gas flaring, it is expected that the penalty will be increased. There are no clear and specific timelines when the flaring of gas will be prohibited.

Environmental protection in Angola is enshrined in article 39 of the Constitution, which states that, 'everyone has the right to live in a healthy and unpolluted environment and the duty to defend and preserve it. The state shall take the requisite measures to protect the environment and species of flora and fauna throughout national territory, maintain the ecological balance, ensure the correct location of economic activities and the rational development and use of all natural resources, within the context of sustainable development, respect for the rights of future generations and the preservation of species. Acts that endanger or damage conservation of the environment shall be punishable by law.'

In relation to environmental protection from oil activities, Minpet is mandated to monitor and inspect oil operations and can impose infractions and penalties for pollution and other illegal activities, although the lines are often blurred among the Ministries of Petroleum and Environment and Sonangol, and even oil industry executives are sometimes confused about the division of roles. Minpet's authority to protect the environment rests mainly within the 2004 Petroleum Activities Law. Article 24 of the Petroleum Activities Act provides that-

> in carrying out their activities, the licensees, the National Concessionaire and its associates shall take the precautions necessary to protect the environment, in order to preserve the same, namely in respect of health, water, soil and subsoil, air, the preservation of biodiversity, flora and fauna, ecosystems, landscape, atmosphere and cultural, archeological and artistic heritage.

Prior to the start of any oil activities, companies must to conduct an EIA study of all possible environmental impacts. The Ministry of Environment reviews and provides

comments on the EIA and advises the Ministry of Petroleum on the acceptability of proposed projects. The Ministry of Petroleum gives the final approval to the EIA, and then issues an Environmental License. EIA legislation is the most detailed and specific of all environmental legislation in Angola. However, technical capacity is lacking and there is seldom any follow-up in relation to the implementation and monitoring of EIAs. As a result, it is rare that mitigation measures are taken or penalties imposed on projects that do not comply with EIA rules and recommendations. The law also mandates that there is a public consultation process on the EIA. However, reading dense, technical reports is beyond the capacity of most Angolans, who have even less ability to provide comments. Apart from broad statements about the government's duty to protect the environment, there are no legal provisions imposing specific EMS in Angola. However, most foreign oil companies follow own standards, in accordance with international standards.

In South Africa concerns have been raised that the existing regulatory framework may not be adequate to deal with all the implications of the process of conducting shale gas fracking.[1966]

Even assuming that the requirement of an EMP in terms of the MPRDA is enough to counter the environmental effects of gas flaring, which is in any event not the case, applicant companies often fail to adequately and properly comply with the requirement. For instance, during the controversial attempt by Shell at obtaining an exploration right for gas in the Karroo, an environmental consultant has said that 'in [his] opinion Shell and Golder have not complied with the Mineral and Petroleum Resources Development

[1966] *Ibid*.

Act (MPRDA) or with any of regulations of the MPRDA that are required for an exploration right, and which specify what the contents of the EMP should be'.[1967]

There is therefore a suggestion that a comprehensive review of the adequacy of the existing environmental regulatory framework as it applies to oil and gas exploration and production generally, and hydraulic fracturing specifically, be undertaken.

6.2.16. Other Challenges Facing the Petroleum Sector: Comparative Perspective

As far as challenges facing the oil and gas sector Nigeria and Angola faces similar challenges including overdependence on oil revenues, the 'Dutch decease', the so called 'resource curse' or the resource management impact, corruption, massive poverty and deprivation, environmental degradation, lack of accountability and openness, marginalisation of local communities, and internal conflict.

South Africa envisages environmental problems relating to (shale) gas fracking and some risks of corruption, as in the case of the 'oilgate' affair affecting PetroSA, as discussed in chapter 5 above.

6.2.17. Comparative Legal Reforms

In Angola the most recent legal reforms are the adoption of the new constitution in 2010[1968] which is proclaimed in the preamble as 'the supreme and fundamental law of the Republic of Angola'.[1969] In terms of article 3(2) of this Constitution, the state exercises its sovereignty over all Angolan territory which includes its land, interior and

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[1967] See Bekker F quoted with approval by Heather n 1694 *supra*, also available in *Information on South Africa's Fracking Proposals in the Karoo Basins: Media and Other Sources* n 1691 *supra* at 93.

[1968] The Constitution of the Republic of Angola, seen and approved by the Constituent Assembly on 21 January 2010, available at www.comissaoconstitucional.ao (accessed 20 April 2013).

[1969] See also articles 6(1) and (2) of the Constitution which makes provision for the supremacy of the Constitution and the rule of law.

territorial waters, air space, soil and sub-soil, seafloor and associated sea beds. Furthermore, article 3(3) provides that the state exercises jurisdiction and rights of sovereignty over the conservation, development and use of natural, biological, and non-biological resources in the contiguous zone, the EEA and on the continental shelf, under the terms of the law and international law. Article 39 (2) requires the state to take the requisite measures to protect the environment and species of flora and fauna throughout the national territory, maintain the ecological balance, ensure the correct location of economic activities and the rational development and use of all natural resources, within the context of sustainable development, respect for the rights of future generations and the preservation of species. In terms of article 39(3) all acts that endanger or damage conservation of the environment shall be punishable by law.

The most important provision though is article 16 which deals specifically with natural resources and makes provision for state ownership of natural resources as follows:

> [t]he solid, liquid and gaseous natural resources existing in the soil and subsoil, in territorial waters, in the exclusive economic zone and in the continental shelf under the jurisdiction of Angola shall be the property of the state, which shall determine the conditions for concessions, surveys and exploitation, under the terms of the Constitution, the law and international law.

As demonstrated earlier, these constitutional provisions were preceded by the repeal of the 1978 General Petroleum Activities Law (Law 13/78, of 26 August, 1978) by the 2004 Petroleum Activities Law (Law 10/04 of 12 November 2004), which came into effect on 16 November 2004 in Luanda, and on 27 November 2004 in other Provinces. As indicated, the purpose of the new law is to consolidate in a single statue the principles that flow from the previous Petroleum Law, the existing concession decrees and exploration and production contracts as well as the industry practice developed throughout the years in Angola. The main changes include the significant expansion of the regulatory powers or responsibilities of MinPet. These include MinPet's right to mandate the allocation of facilities/equipment from one concession to another concession, and to unilaterally change scheduled production rates and mandate production volumes.

Before its enactment, the new draft Petroleum Law had been circulated at a senior level in government and within the National Assembly. The law was drafted to reflect new concepts and practices in international and Angolan petroleum law. Viewed holistically, the new law retains the discretionary licensing system.

6.2.17.1. Nigeria

In Nigeria the most recent legal reforms include the Nigerian Local Content Act as discussed above and the PIB.

In terms of the Nigerian Local Content Act, similar to the British Petroleum (Production) Act, 1934, Nigerian independent contractors are entitled to first consideration and preference in the award of oil blocks, oil fields licences, oil lifting licenses, and in all projects for which contract are to be awarded in the Nigerian oil and gas industry subject to fulfilment of such conditions as may be specified by the Minister.[1970] It also stipulates that exclusive consideration shall be given to Nigerian indigenous service companies which demonstrate ownership of equipment, Nigerian personnel and capacity to execute such work to bid on land and swamp operation areas of Nigeria for contracts contained in the schedule of services to the Act.[1971]

In addition to the Nigerian Local content Act, in 2010 the PIB was introduced in Nigeria. This draft law seeks to establish a new legal and regulatory framework, institutions and regulatory authorities for the Nigerian petroleum industry, to establish guidelines for the operation of upstream and downstream sectors, and for purposes connected with the same.[1972] One of the PIB's goals is to reposition the new envisaged Nigerian National Petroleum Company, the NNPC Ltd, on a level similar to other successful NOCs

[1970] See s 3(1) of the Local Content Act n 1109 *supra*. See also Uwanna n 1100 *supra* at 1.

[1971] See s 3(2) of the Local Content Act n 1109 *supra*.

[1972] See Uwanna n 1100 *supra*.

globally.[1973] It further seeks to align the environmental management systems to international best practices. At the time of writing, the PIB is yet to be passed into law in Nigeria.

6.2.17.2. South Africa

As indicated in chapter 5 above, an amendment to the MPRDA was published for comments in 2012. One of the provisions amended is the section 9, read together with section 69, of the MPRDA, which provides for the 'first-come, first-served'[1974] principle. The 'first-come-first-serve' principle is sought to be replaced with a provision empowering the Minister to invite, by notice in a *Government Gazette*, applications for, among other, exploration rights and production rights in respect of any area of land or block or blocks. The Minister is further empowered to prescribe, in such a notice, the period within which applications may be made and the terms and conditions subject to which such rights may be granted.

This proposed amendment has the effect of changing the 'first-come, first-served' principle and replacing it with granting of rights on invitation and based on the discretion of the Minister. On face value, this could be seen heralding an approach by the DMR whereby applications can no longer be made for exploration and production rights (and prospecting and mining rights) on an *adhoc* basis, but upon an invitation by the Minister. However, even with respect to solid minerals this does not seem to be the case because the *adhoc* applications are not abolished by the proposed amendment. The proposed amendment merely adds the application upon invitation feature to the existing *adhoc* application. This could arguably be the case in respect of solid minerals but not petroleum. The granting of rights on application upon invitation by the Minister has always been, and still is, a feature of the MPRDA in terms of section 73. The only

[1973] See Illadere W 'An Appraisal of Oil and Gas Industry Reform and Institutional Restructuring in Nigeria' *International Association for Economics* Fourth Quarter, available at http://www.iaee.org/documents/newsletterarticles/408wumi.pdf (accessed 06 July 2012) p 25.

[1974] See 5.6.4 above.

change is that applications should be lodged with the Regional Manager of the provincial region of the DMR rather than the designated agency (PASA), as it is currently the case.

However, the proposed removal of the 'first-come, first-served' principle is questionable. The 'first-come, first-served' approach to the grant of petroleum rights was meant to attract a wide range of applicants including junior companies, local companies and investors, as well as major international oil companies.[1975] Williams argues that by maximising exposure of the country's resources to the widest range of prospective investors, the model [the 'first-come, first-served' approach] maximises the prospect for attracting private investment into the country's …[petroleum] sector'.[1976] The 'first-come, and first-served' approach is also fair as it considered nothing, at the stage of considering applications, other than the date at which the application was received, except if one of the applicants is an HDSA in which case preference is given to such an applicant. This is merely a question of fact which is easily and certainly ascertainable. It is thus more transparent than a situation whether the Minister uses a discretionary preference.

Another important proposed amendment relates to beneficiation. Section 26 of the MPRDA is proposed to be amended to the effect that the Minister is entitled to determine the percentage of a unrefined petroleum resource, such as oil or shale gas, and the price in respect of such percentage of unrefined petroleum as may be required for local beneficiation or value addition, in line with the national development imperatives.[1977]

A more drastic change proposed by the draft amendment Bill is the disbanding of the PASA as provided for in section 70 of the MPRDA. Section 70 of the MPRDA is sought to be amended to the effect that applications for (petroleum) exploration rights and

[1975] See Williams n 1600 *supra* at 749.

[1976] *Ibid*.

[1977] See clause 21(c) of the draft Bill which amends s 26 of the MPRDA by inserting subsection 2B.

production rights are to be processed by the regional managers of the DMR based in the DMRs nine regional offices across the nine provinces, rather than PASA as is currently the case. Although it does not explicitly state so, the amendment of section 70 of the MPRDA by the draft amendment Bill has the effect of disbanding the PASA. Sections 70 and 71 are sought to be amended to the effect that all the functions that were performed by the PASA are effectively transferred to the regional managers. This could be problematic in the sense that the regional managers are not technically well vested with petroleum issues as they are traditionally dedicated to the processing of applications for mineral rights (solid minerals) and not applications for rights to exploit petroleum resources.

Another important proposed amendment relates to cancellation, relinquishment, abandonment, and lapsing of acreage. According to the proposed section 71(2A) of the draft amendment Bill, any acreage that is relinquished or abandoned or any right that is cancelled or has lapsed, will not be available for application until the Minister has invited applications for such acreage. In other words, no direct *ad hoc* application may be made to the regional manager if the Minister does not invite applications with regard to acreage relinquished or abandoned or rights cancelled or lapsed.

In another envisaged amendment, the regional manager is empowered to accept an application for a reconnaissance permit over any part of an area subject to a technical co-operation permit, exploration right or production right on condition that the applicant furnishes written confirmation from the holder of any of those rights giving the regional manager consent to accept and process such an application.

The draft Bill also provides for relinquishment of a portion of an area (to be prescribed in Regulations) in respect of which a technical co-operation permit relates, or in respect of which an application for renewal of an exploration right or production right is made. This is welcome proposal and is in accordance with best practices in the petroleum regulation world-wide. The rights and duties of a holder of an exploration right are also sought to be expanded to include the duty to notify the Minister of any discovery made in the

exploration area and to submit an appraisal programme, an EIA, and an environmental authorisation for appraisal operations in terms of NEMA.

The draft Bill also seeks to introduce the carried-interest system. Sections 80 and 84 of the MPRDA are sought to be amended to the effect that the state shall have a right to a 'free carried interest' in all new exploration rights and production rights, with an option to acquire a further interest on specified terms through a designated state organ or state owned entity to be determined by the Minister in *a Government Gazette*. In respect of a production right, it is envisaged that the state shall upon exercising such an option be issued with special shares which shall carry the right to appoint up to two directors to the management board of the production operation, with alternates, and shall receive all dividends or other distributions in respect of the further interest percentage. The obvious critique in respect of this proposed amendment is the element of uncertainty which it introduces for prospective investors. The proposed amendment contains no indications or guidelines as to the possible size of the 'free carried interest' which will be cumulative to the local content or BEE shareholding requirements.

6.2.18. Comparative Dispute Resolution Mechanisms

In Angola article 89 of the 2004 Petroleum Activities Law states that disputes that are contractual in nature should be settled amicably but, if not, in accordance with arbitration under the terms of the applicable agreements. The seat of an arbitral tribunal is to be Angola, applying Angolan law and conducted in Portuguese. The Model PSA includes dispute resolution provisions consistent with the foregoing applying the UNCITRAL rules and with the seat of arbitration in Luanda.

There are no similar provisions in the Nigerian and South African legislation. Normal domestic laws are therefore utilised to resolve these disputes unless there is a bilateral investment treaty with a particular country.

6.3. Lessons from Britain and Norway

As two of the states under comparison, namely Angola and Nigeria, are modelled in terms of the Norwegian and British models respectively, one has to determine what lessons, if any, could be taken from Norway and Britain. Both Norway and Britain follow the system of state ownership of petroleum resources.

6.3.1. Norway

In Norway section 1-1 of Act No 11 of 22 March 1985, as amended[1978] provides that the 'state has the proprietary right to subsea petroleum deposits and the exclusive right to resource management'.

Section 1-2 Chapter 1 also provides that-

> resource management of petroleum resources shall be carried out in a long-term perspective for the benefit of the Norwegian society as a whole. In this regard the resource management shall provide revenues to the country and shall contribute to ensuring welfare, employment and an improved environment, as well as to the strengthening of Norwegian trade and industry and industrial development, and at the same time take due regard to regional and local policy considerations and other activities.

As a result of the state ownership of petroleum resources, the exploration for and the production of oil and gas in Norway cannot take place without government permission. In this regard, section 1-3 Chapter 1 of the Act provides that 'none other than the state may conduct petroleum activities without the licenses, approvals and consents required pursuant to this Act'. Section 2-1 Chapter 2 provides that the 'Ministry may grant to a body corporate a license to explore for petroleum within limited areas of the seabed or

[1978] The Petroleum Act No 72 of 29 November 1996 relating to petroleum activities. Last amended by Act 14 December 2001 No 98, 28 June 2002 No 61, 20 December 2002 No 88, 27 June 2003 No 68, 7 January 2005 No 2, 30 June 2006 No 60 and 26 January 2007 No3.

its subsoil. Exploration licenses may also be granted to a physical person domiciled in an EEA state.' There are two licenses that may be granted for exploration and production of petroleum, namely an exploration license and a production license.
An exploration license gives the right to explore for petroleum. It does not give exclusive right to exploration in those areas that are mentioned in the license, or any preferential right when production licenses are granted. A production license may be granted to others, or license may be granted according to section 4-3 in areas covered by exploration licences, without giving rise to any liability or any obligation to refund fees that have been paid. Exploration licence is granted for a period of 3 calendar years unless another period of time is stipulated.

A production licence entails an exclusive right to exploration, exploration drilling and production of petroleum deposits in areas covered by the licence. The licensee becomes the owner of the petroleum which is produced. The King is not obliged to grant any production licence on the basis of the applications received. The King may grant production licences without announcement. Prior to such granting of a production licence, the licensees of production licences in all adjacent areas shall be given the opportunity to apply for a production licence for the area in question. Notification shall be published in The Norwegian Gazette (*Norsk Lysingsblad*) and the Official Journal of the European Communities indicating the blocks which are affected.

In terms of section 3-9 Chapter 3 the duration of a production licence is 10 years. However, if a production licence is granted for a shorter period of time, the Ministry may subsequently extend the licence period within the 10 years limit. A licensee who has fulfilled the work commitment according to Section 3-8 and the conditions otherwise applicable to the individual production licence may demand that the licence shall be extended after the expiry of the period stipulated pursuant to the first paragraph. The extension period shall be stipulated in the individual production licence, and shall as a general rule be up to 30 years, but may in specific cases be up to 50 years.

Both the issue of state participation and work obligations are discretionary in Norway. Section 3-6 Chapter 3 provides that the King may decide that the Norwegian State shall participate in petroleum activities according to this Act. Section 3-8 Chapter 3 also

provides that the King may impose on the licensee a specific work obligation for the area covered by the production licence.

In terms of section 3-14 Chapter 3, with 3 months' notice, relinquishes parts of the area covered by the production licence. Thereafter, relinquishment of parts of the area may take place at the end of each calendar year, provided notice of such relinquishment has been given at least 3 months in advance. The Ministry may require the obligations stipulated according to the production licence and the conditions on which it has been granted to be fulfilled prior to relinquishment. The King may issue regulations relating to delimitation of the areas to be relinquished.

The Norwegian system may therefore be characterised as discretionary as the production licences are awarded in dedicated licencing rounds, subject to such conditions as may be stipulated by the King in accordance with section 3-3 Chapter 3 of the Petroleum Act. Applications for licences may also be made individually by a body corporate or physical person domiciled in an EEA state in accordance with section 1-3 Chapter 1. Applications are lodged pursuant to a Ministerial announcement of a licensing round in terms of section 3-5 which indicates the area for which applications for production licenses may be submitted, and the conditions for granting licences including a condition that that holders of a production licences must enter into agreements in the form of a joint venture with specified contents with one another. This awarding of production licences to groups of companies ensures the plurality of geological and technical ideas and also checks and balances. It is important to note that the Ministry decides on the composition of licence group, the operator, and the work obligation

The announcement is published through notification in the Norwegian Gazette (*Norsk Lysingsblad*) and the Official Journal of the European Communities and it also stipulates a time limit for the filing of applications of not less than 90 days, and it shall contain such information as decided by the Ministry. The granting of a production licence shall be done on the basis of factual and objective criteria, and the requirements and conditions stated in the notification.

A particularly important lesson for Nigeria and Angola is the separation of functions in the Norwegian model in terms of which the functions of policy development, industry regulation, and commercial operations are separated. In Norway petroleum resources are administered by three distinct government bodies, namely a national oil company (Statoil), which is engaged in commercial hydrocarbon operations; a government ministry, the Ministry of Petroleum and Energy, which is responsible mainly for policy development including, announcing licensing rounds, considering applications for licences, negotiating with applicants, proposing final awards to Government, and preparing licensing documents; as well as a regulatory body, the Norwegian Petroleum Directorate (NPD), which provides oversight and technical expertise.[1979]

Another critical lesson for both Nigeria and Angola is Norway's fiscal management of its crude resources. In Norway the general taxation rate for all enterprises, including oil and gas companies, is 28 per cent.[1980] In addition to this, oil and gas companies are subject to a special tax rate of 50 per cent in order to capture the resource rent.[1981] However, in order to protect normal profits from being taxed with the 50 per cent special tax, there is a 7.5 per cent uplift on investments each year, for four years (totaling 30 per cent), which can be deducted against the tax base before the special tax of 50 per cent is applied.[1982] In addition to the petroleum tax system, Norway also has state participation in the petroleum industry: the so-called state direct financial investment, administered by the state-owned company, Petoro. The state's direct financial investment places the government as a participant on equal footing with other oil and gas companies.[1983] It

[1979] See, in this regard, Thurber *et al* n 378 *supra*. See also n 419 *supra*.

[1980] See Aarsnes F & Lindgren P *Fossil Fuels – at What Cost? Government Support for Upstream Oil and Gas Activities in Norway* (International Institute for Sustainable Development 2012) 11.

[1981] *Ibid*.

[1982] *Ibid*.

[1983] *Ibid*.

pays its own share of operating costs and investments, and it receives 100 per cent of the revenues from its share of fields in production.[1984]

In terms of government participation, the government further participates indirectly through Statoil in which the state holds a 67 per cent stake. All revenues from the sale of petroleum resources go directly from Statoil to the coffers of the Government. Statoil thus operates on the same terms and conditions as other commercial players globally and has no regulatory roles.

The issue of public consultations in relation to petroleum activities in Norway is also of particular relevance to African states engaged in petroleum exploration and production. In Norway, before opening new areas on the Continental Shelf for petroleum activities, an impact assessment is carried out by the Ministry of Petroleum and Energy and there is a 3 months public consultation process. Furthermore, before the announcement of areas for an award of new production licences a 6 weeks public consultation process is held. Before the approval of a plan for development an impact assessment is conducted and a 3 months public consultation process is held. Before the approval of plan for installation and operation of facilities (ex: pipelines) an impact assessment is conducted and a 3 months public consultation is held. Lastly before disposal an impact assessment is conducted and a 6 weeks public consultation is conducted.

Other lessons that can be learned from the Norwegian model include that the petroleum law and policy should be as predictable, transparent, and without hidden costs or signature bonuses; as possible and ensure close dialogue between the authorities and the industry; train and capacitate the workforce and provides a world class supply industry.

6.3.2. Britain

[1984] *Ibid*.

In Britain section 2 of the Petroleum Act of 1998, which provides that 'Her Majesty has the exclusive right of searching and boring for and getting petroleum'; which 'exists in its natural condition in strata in Great Britain or beneath the territorial sea area adjacent to the United Kingdom'.[1985] Among other things, the Petroleum Act 1998 provides for licences for exploration and production in territorial waters and the UKCS to be granted by the Secretary of State for Energy and Climate Change.

Applicants are judged against the background that they fully meet the general objective of encouraging expeditious, thorough, and efficient exploration to identify the oil and gas resources of the UK.[1986] The criteria used to make this judgment are set out in regulations.

Applicants must meet threshold standards of financial capability and environmental management. All that is required is that they should also demonstrate technical competence through their geological interpretation of the area applied for and their plans for further exploration and appraisal of its potential resources.[1987] Unfortunately, there is no definition of or guideline as to what these threshold standards entails. It is submitted that it is entirely up to the discretion of the licensing authority to determine whether an applicant meets these requirements and thus qualify to be granted the necessary license.

There are basically three types of licenses, depending on whether the area is offshore or onshore, namely: an exploration licence, a production licence, and a petroleum exploration and development licence. A three year exploration license grants non-

[1985] See s 2(1) read together with s 2(2) of the Petroleum Act 1998.

[1986] See Tordo *et al* n 791 *supra* at 22.

[1987] *Ibid*.

exclusive exploration rights in areas below the low-water line, and which are not covered by a production license.[1988] A production license grants exclusive exploration and production rights in areas in the territorial sea and UKCS. A petroleum exploration and development license (PEDL) grants the holder exclusive exploration and production rights in landward areas, that is, areas landward of the baseline of the territorial sea. Applicants must prove technical competence, awareness of environmental issues and financial capacity before being awarded a PEDL. The duration of the licence consists of an initial term of six years, a second term of five years, and a third term of 20 years. There is a mandatory relinquishment of 50 per cent at the end of the initial term.

In Britain state participation is realised through JOAs.[1989] Although there are different variations, all JOAs had, and still maintain the following essential elements:

- the inclusion of BNOC as a licensee along with existing consortium partners;
- the grant to BNOC under the licence JOA of an entitlement to take, at market price, up to 51 per cent of the oil attributable to the licensees under the licence (reduced, if appropriate, by the amount of any BNOC membership equity interest in the licence); and
- BNOC membership, with a vote, of the operating committee.[1990]

[1988] See Tordo *et al* n 791 *supra* at 65.

[1989] *Ibid*.

[1990] See Daintith & Willoughby n 50 *supra* at 43.

CHAPTER 7

CONCLUSION AND RECOMMENDATIONS

7.1 Conclusion

It has been demonstrated that in terms of endowment with petroleum resources there are more similarities between Angola and Nigeria and more difference between the two countries and South Africa. Nigeria and Angola are richly endowed with petroleum resources while South Africa is comparatively less advantaged. However, production in Nigeria is decreasing while in Angola it is increasing. Several socio-economic and political challenges such as corruption, misappropriation of revenues, environmental degradation and internal conflict have placed the so-called 'resource course' syndrome upon these the two African countries. The 'Dutch-desease' is likewise a serious issue affecting both Angola and Nigeria. For instance, Nigeria has neglected other sectors of the economy such as agriculture and energy and relies heavily on revenues derived from the exploitation of oil and gas resources.

In South Africa there is a high expectation of a slow but gradual increase in production. Despite the environmental concerns raised against shale gas fracking in South, the potential take-off of shale gas could go a long way in addressing South Africa's current energy crises.[1991] In this regard South Africa could draw inspiration from the UK which was the first to carry out a detailed study on shale gas fracking which concluded that

[1991] Shale gas fracking is also widely used in the USA where it is heralded as an 'energy revolution' and several EU countries (including Denmark, Poland, the UK, Germany, Romania, Spain, Lithuania and Bulgaria) have begun to explore for shale gas and expressed a need for common legal framework for fracking in order to manage environmental concerns See http://phys.org/news/2014-01-eu-common-shale-gas-fracking.html#inlRlv

there is no direct risk to water aquifers, so long as the well-casing is intact.[1992] Although shale gas fracking in the UK is still at its infancy status, in December 2012, the UK government lifted a temporary moratorium on shale gas fracking subject to new controls to mitigate the risks of seismic activity.[1993] 'These new controls include a traffic light system to categorise seismic activity and direct appropriate responses. The government's decision followed analysis of detailed studies and advice from leading experts. At the same time the government announced that there would be a consultation on how the current licensing regime could be modified to support the particular characteristics of shale gas developments and that a tax regime specific to the shale gas industry would be developed'.[1994] Good governance and environmental regulation should therefore also be a priority in South Africa.

The main difference between Nigeria and Angola, both of which adopted a hybrid system for the regulation of upstream activities in the petroleum sector is that unlike the two states, South Africa has adopted a very general legislative system without any contractual arrangements contrary to established practice. This is probably the biggest disadvantage of South Africa as it does not provide for contractual flexibility. The hybrid system is the most flexible system and is beneficial to both the host government and IOCs. This is therefore a preferable system for Africa in general and South Africa in particular as it promotes the protection of petroleum resources.

As far as ownership of the resources *in situ* is concerned, Nigeria and Angola are in the same position. They both vest the ownership of petroleum resources *in situ* in the state. This is also in accordance with international best practice. Although state ownership of

[1992] See Eversheds SE 'Shale Gas –an EU Analysis' available at http://www.shale-gas-information-platform.org/areas/the-debate/shale-gas-an-eu-analysis.html (accessed 29 April 2014).

[1993] *Ibid*.

[1994] *Ibid*

petroleum resources is ideally essential and effective for the protection of Africa's petroleum resources from exploitation, abuse and depletion, in Angola and Nigeria this system is not effective for the protection of Africa's petroleum resources. This is due to the abuse of state ownership by the respective governments of the two countries through corruption, maladministration, lack of transparency and mismanagement of resources. Instead of promoting the development of infrastructure in the countries and in the oil producing areas such as the Niger-Delta in Nigeria and Cabinda in Angola, oil revenues are siphoned by the elite few and squandered through collusion between the governments and oil companies. In Africa state ownership of petroleum resources alone is therefore not an effective or appropriate means of protecting petroleum resources from irresponsible foreign exploitation.

One of the reasons for this could be that the legislature was avoiding claims for compensation for expropriation which could arise or be raised against the state in view of South Africa's former legal recognition of private ownership titles in respect of any resources found on the land and below. Despite the South African system not making provision for state ownership of petroleum resources, its laws are more effective than those of Angola and Nigeria and these resources are managed in a better way.

Although all three African states under comparison do make provision for PSNR, in South Africa there is no express constitutional provision for PSNR. The only provision for PSNR is contained in the MPRDA. This is contrary to international best practice and does not promote the protection of Africa's petroleum resources. However, even though both Angolan and Nigerian petroleum laws make provision for PSNR, it has also been argued that PSNR in Africa should be treated as a right that accrues to oil and gas producing communities rather that the state as the elites in African states tend to abuse this right for their personal and family benefit to the exclusion of the communities.

As far as the legal nature of rights is concerned, Angola and Nigeria vest ownership of oil and gas in situ in the state. This means that the right to these resources is an absolute proprietary right. In South Africa on the other hand there is no provision for ownership of these resources *in situ*. The rights are regarded as limited real rights in terms of section 5 of the MPRDA.

Different methods and criteria for granting licences are applicable in the three African states, namely open tenders and direct negotiations in Angola, competitive bidding based on work programms in Nigeria and South Africa's application system. The Nigerian system is discretionary while the South African and Angolan systems require applicants to be technically able and financially capable of undertaking the exploration and production activities. In addition in South Africa environmental requirements serve as criteria for granting licences. South Africa's BEE requirements and Nigeria's equity requirements constitute further requirements, but are susceptible to circumvention by multinational companies.

Concerning the structural or institutional arrangements, Nigeria and Angola have similar challenges since there is no clear separation of functions between the regulator and the commercial player as both Sonangol and the NNPC perform both roles resulting in conflicts of interest. The board of the NNPC in Nigeria is dominated and chaired by politicians and the system is abused by collusion between the federal government and IOCs. Serious environmental concerns such as oil spills are a further big concern in the oil sector in Nigeria. In South Africa there is a clear separation of functions between the regulator, the DMR assisted by PASA, and the commercial entity in the form of PetroSA which is a fully fledged commercial player which is independent and has no regulatory functions.

In terms of the issue of state participation, Angola and Nigeria participate in the exploration and production of petroleum resources directly through their NOCs which compulsorily acquire more than 50 per cent of the production share under their respective PSCs, service contracts, JVs and other consortiums. This is advantageous in maximising resource rents for host governments. The South African government, on the other hand, only participates indirectly in the exploration and production of petroleum resources through its NOC, PetroSA, in which it has majority shares. There are no contractual arrangements or participation agreements such as PSCs between PetroSA and IOCs in South Africa. PetroSA should be expanded to be able to deal with shale gas exploration as well.

The Nigerian government charges both signature and production bonuses and thus gives priority to the need of governments to rapidly generate revenues from the exploitation of natural resources; often without consideration for the highly capital intensive nature of petroleum projects. Signature bonuses are payable as a rule in Angola on a contractual basis, as there is no provision for them in any legislation. In South Africa there is no payment of signature bonuses or production bonuses.

Although both Nigeria and South Africa operate on the basis of a royalty system, the payment of the South African royalty is based on the transfer or sale of gross production of petroleum, while the Nigerian royalty is payable based on actual production. In Angola royalties are generally not payable under the Petroleum Activities Law. However, a royalty of 20 per cent is payable based on gross production in the Cabinda concession, as would be the applicable rate in Nigeria. In Nigeria the percentage varies depending on whether production is offshore, onshore and the depth of the waters. The percentages are 20 for onshore, 18 and a half per cent for offshore production where the water depth is less than 100 metres, and 16 per cent for offshore production beyond 100 metres.

All the institutions that are involved in the regulation of oil and gas upstream activities in all the three countries should become better capacitated in terms of human, technical and financial resources. Of particular importance is the issue of separating regulatory functions from commercial activities particularly in Nigeria and Angola where the NOCs are both regulators and commercial players in the same field and at the same time.

On the issue of local content, as indicated earlier, the Nigerian equity requirements and the South African BEE requirements are often circumvented by multinational companies with the acquiescence of government.

The issue of community participation, as an effective policy to overcome the effects of the 'resource curse' in the exploitation and sharing oil and gas resources and the sharing of revenues derived from the exploitation of these resources is a matter that requires the attention of the Nigerian and Angolan governments.

An overall assessment of the three systems reveals that there is no ideal model for oil and gas regulation. If the Norwegian model was applied with care and correctly in Angola, it could be an ideal model for Africa. In Norway, there is a clear separation of powers between the regulatory authority and Statoil, the NOC. This is not the case in Angola because Sonangol, the national concessionaire, is both a player and a referee. This obviously results in a conflict of interest between regulatory independence and commercial interest. As the Global Witness indicates-

> Sonangol is the centre of power in the Angolan oil industry and dominates the Angolan economy. Sonangol produces oil in its own right, collects revenues and sells oil on behalf of the state, acts as a regulator of other companies, and controls the allocation of exploration and production licences. The company also invests widely in other sectors of the economy, borrows large sums from international banks, and still uses its oil revenues to fund "quasi-fiscal activities" on behalf of the government, such as oil subsidies for the population, although at the time of publishing some of these practices appear to be under review.[1995]

[1995] See Global Witness' Rigged? A report by Global Witness – January 2012 http://www.globalwitness.org/rigged/rigged.pdf (accessed 29 April 2014).

The lack of good governance and control in Sonangol also makes the Angolan version of the Norwegian model ineffective in protecting the petroleum resources of the country. Various reports of the World Bank and the IMF show that there is a serious lack of transparency on how revenues derived from exploitation of petroleum resources is utilised.[1996] A lack of transparency and due process in the allocation of oil licences is particularly a cause for concern because of both Angola and Nigeria's history of corruption. It is widely accepted that the misappropriation of public funds and assets by corrupt elites has been a major cause of under-development.[1997] Angola's adoption of the Norwegian model must therefore go beyond the mere superficial transplant as has happened in Angola. For instance, despite the fact that Angola and Norway's production line are basically the same, the Norwegian sovereign wealth fund, built in large part on investment from the country's oil and gas reserves is the largest in the world,[1998] while there is none of any significance in Angola which indicates that petroleum resources are not managed effectively in that country. The Norwegian fund is also known as one of the most transparent in the world.[1999]

Furthermore an examination of all the three models demonstrates that they are ineffective in the sense that IOCs and MOCs are able to circumvent the laws and

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[1996] See International Monetary Fund May 2012
IMF Country Report No. 12/103 'Angola—Sixth Review Under the Stand-By Arrangement, Request for Waivers of Non-observance of Performance Criteria, and Proposal for Post-Program Monitoring—Staff Report; Press Release on the Executive Board Discussion; and Statement by the Executive Director for Angola
https://www.imf.org/external/pubs/ft/scr/2012/cr12103.pdf (accessed 29 April 2014); Human Rights Watch 'Some Transparency, No Accountability: The Use of Oil Revenue in Angola and its Impact on Human Rights' available at
http://www.hrw.org/sites/default/files/reports/angola0104.pdf (accessed 29 April 2014).

[1997] See n 2002 *supra*.

[1998] See http://www.bbc.com/news/world-europe-24049876 (accessed 29 April 2014).

[1999] See the Sovereign Wealth Fund Initiative http://fletcher.tufts.edu/SWFI-OLD/~/media/Fletcher/Microsites/swfi/pdfs/2012/profiles/Norway%20Fund%20Profile.pdf (accessed 29 April 2014).

policies in order to abusively exploit and monopolise Africa's petroleum resources. In Nigeria, it is clear that there is regular collusion between the federal government and MOCs.[2000] As Fidelis indicates 'the perception by a cross-section of Niger Deltans that there is collusion between government and oil companies in matters of implementation of government environmental policy fuels their sense of frustration with the political processes'.[2001] In Angola there is every indication of collusion between Sonangol and the oil companies.

7.2 Recommendations

The conclusion above necessitates a consideration of the following recommendations by the respective African state under comparison.

7.2.1. Angola must ensure the separation of Regulatory and Commercial Powers of Sonangol

The issues of Sonangol as both a regulator and a commercial player has been highlighted and it is recommended that these regulatory and commercial functions should be separated so that Sonangol performs only the regulatory function in order to avoid the conflicts of interest. The conflict of interest is particularly clear when Sonangol considers the allocation of oil licences where its own subsidiaries are taking part in the bidding.

7.2.2 Angola must strengthen transparency on its oil revenues

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[2000] See Boele R *et al* 'Shell, Nigeria and The Ogoni. A Study in Unsustainable Development: I. the Story of Shell, Nigeria and the Ogoni People –Environment, Economy, Relationships: Conflict and Prospects for Resolution' 9 (2001) *Sustainable Development* 74 at 78. See also Fidelis A 'Oil Companies and Implementation of Government Environmental Policy in the Niger Delta' available at http://graduateinstitute.ch/files/live/sites/iheid/files/shared/executive_education/Global%20South%20Workshop/paper_Allen.pdf (accessed 29 April 2014).

[2001] See Fidelis n 2004 *supra*.

The Angolan government must strengthen its transparency on the payment of petroleum revenues. This could be done by Sonangol publishing details of all incoming oil revenues and outgoing oil debts; conducting and publishing its audits. The Angolan government must also join the Extractive industries transparency Initiative and actively, fully and formally participate and implement its principles.

7.2.3 Diversification of Economy in Nigeria and Angola to counter the Dutch desease

Both Angola and Nigeria should diversify their economies in order to leverage other sectors that have always been neglected such as agriculture in Nigeria. This will minimise the impact of the Dutch-desease.

7.2.4 Separation of regulatory and commercial functions in the NNPC

As indicated earlier the fact that the NNPC in Nigeria is performing commercial as well as regulatory functions is undesirable as it results in conflict of interest. Therefore the NNPC must be restructured in such a way that commercial and regulatory functions are separated.

7.2.5. The Need for a Specific Petroleum Law in South Africa

The South African government should investigate the possibility of revising the MPRDA to separate the regulation of solid minerals such as coal from the regulation of fugacious petroleum resources such as oil and gas. The emphasis on the regulation of solid minerals ignores the potential to develop the petroleum sector and the government should start investing a lot of energy on policies and legislation on exploitation of petroleum resources. South Africa should therefore develop a separate petroleum law in accordance with international best practice. This specific petroleum legislation, ideally a new Petroleum Resources Development Act (PRDA) should include provisions on state ownership of petroleum resources and PSNR in accordance with normal practice in the petroleum world. The specific petroleum legislation should also identify a single government entity or agency vested with the exclusive mandate to implement petroleum sector policy and represent the state in negotiations, contracting, regulation and administration of the sector. The need for such an entity to have strong sectoral

expertise and experience can therefore not be overemphasised. Although such an agency is already available in the form of PASA, it is regrettable that the draft MPRD amendment Bill seeks to abolish it and transferring its functions to the regional managers of the DMR. As indicated earlier, all the functions that were performed by PASA are effectively transferred to the regional manager. These regional managers are not technically well vested with petroleum issues as they are traditionally dedicated to processing of applications for mineral rights (solid minerals) and not applications for rights to exploit petroleum resources. Therefore if the government proceed with these amendments or creates a new agency, it should therefore greatly invest in training and capacitating such an agency.

7.2.6 The Need for a Hybrid System of Oil and Gas Regulation in South Africa

South Africa should strongly consider adopting a hybrid system for the regulation of the exploration, development and production of oil and gas. Thus the starting point should be a more systematic development of a new PRDA which could be a primary sector-specific legislation regulating upstream activities in the petroleum resources sector. This new legislation should then make provision for state participation under contractual arrangements such as service contracts and PSCs in order to achieve greater alignment with international best practice on petroleum laws. A new PRDA should thus provide for contractual arrangements between the South African government, through PetroSA, on the one hand, and IOCs on the other hand, to jointly accelerate the development of South Africa's oil and gas potential. As indicated earlier the hybrid system is the most flexible system and is beneficial to both the host government and IOCs. This is therefore a preferable system for Africa in general and South Africa in particular as it promotes the protection of petroleum resources.

7.2.7 The Need for a Specific Legislative Framework on the Exploitation of Shale Gas in South Africa

As the MPRDA was not designed to regulate shale gas exploitation specifically, the South African government could also consider designing a special shale gas regulatory

framework. [2002] Specific and detailed environmental regulations which are needed to effectively manage any negative environmental impact that could arise as a result of the exploitation of shale gas. There should be provisions on environmental impact assessment prior to exploration and extraction. Other important aspects could include provisions allowing public participation in decision-making on shale gas exploitation licences; requirements for submission of fracking plans showing how any seismic risk will be monitored and managed; provisions requiring setback and zoning; provisions requiring baseline monitoring prior to drilling or fracturing; and provisions on health and safety issues. [2003]

[2002] It should be noted however that no country has as yet set in place a legislation and permitting procedure specific to unconventional gas activities. They all rely on the current mining and/or hydrocarbon legislation. See in this regard Milieu Ltd. Brussels, July 2013 Final Report on Regulatory provisions governing key aspects of unconventional gas extraction in selected Member States http://ec.europa.eu/environment/integration/energy/pdf/Final%20Report%2024072013.pdf (accessed 29 April 20104).

[2003] *Ibid*.

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