The Role of Law in the Exploration for and Production of Petroleum Resources

By

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Abstract

The economic growth, strength and development of almost all the countries in the World is dependent on the adequate discovery and utilization of their natural resources. For the resources to be put to economic use, they must first of all be discovered through explorations and then production follows. The quest for these can be very tedious, capital intensive and cumbersome. It can also be source of conflicts amongst citizens and countries. The best way to curb any future hurdles in the exploration and production of petroleum resources is to pre-empt these conflicts and to provide remedies; the law has been identified as the most vital tool for this. In response, laws have been put in place which anticipates such problems and have provided the solutions to minimize any potential hurdle to the exploration and production of petroleum resources. It was discovered that without the law, explorations of and productions of the oil and gas will almost not be possible. The doctrinal method of research was adopted as it analyzed different laws at the national level and also at the international level as well. This article discussed some of the pivotal role the law play in the exploration and production of petroleum resources while enlightening the reader on the importance of the law in the field. It was recommended that parties to any agreement on the exploration and production of oil and gas should as a matter of first step have enabling laws that guide their affairs in order to avert any hindrance to their search for oil and gas.

1.1 Introduction

The law governing petroleum resources is the 'legal regime that governs various aspects of oil and gas business, exploration, drilling, transportation and commercial transactions in an oil and gas province'.[1] Petroleum law can also be contractual arrangements[2] that are used almost every time by the petroleum industry especially

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[1] M Alramahi, *Oil and Gas in the UK* (Bloomsbury Professional Ltd, 2013) at 1.

[2] Like production sharing contract, joint ventures, service contract, risk service contract, and licencing

during hydrocarbon operations, exploration, exploitation, collection and distribution of petroleum resources.[3]

Petroleum resources are a source of wealth when explored and produced. They are non- renewable natural resources found beneath the earth and can be very scarce. Petroleum resources are not *res nullius*[4] and as such, they are owned controlled mostly by the sovereign states where they are found.[5] The objective of this work it to ascertain the extent the law play a role in the exploration and production of oil and gas resources. In order to ascertain this, the law in itself, will be discussed and how it has been applied and the effect of such application It will be concluded that the law play a significant role in the exploration and production of petroleum resources right from seismic surveys to decommissioning. Due to the limited space of this work, the research will focus on the national laws of the United Kingdom and Nigeria and the International law with focus on exploration and production of petroleum resources.

1.2 The National Law and Petroleum Resources

As already stated in the introductory part of this work most states own and control the petroleum resources within their jurisdiction and are considered the exclusive owners of their petroleum resources. In Nigeria for example, Section 44(3) the Constitution of the Federal Republic of Nigeria, 1999 (as amended), Section 1 (1) & (2) of the Petroleum Act, 1969[6] and Section 2(1) of the Exclusive Economic Zone Act[7] vests in the Federal Government of Nigeria the ownership and control of all oil and gas in its onshore and offshore areas. In the United Kingdom, (UK) Section 2(2) of the Petroleum Act 1998 provides that 'Her Majesty has the exclusive right of searching and boring for and getting petroleum to which, this section applies.' [8]
From the above two legislations, it can be seen that the appropriate authority that can permit a third-party access to any petroleum resources in their jurisdiction is the state and the crown respectively. By implication, there is no private ownership[9] of petroleum resources in these two jurisdictions.

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[3] M Alramahi (n 1).

[4] Res nullius means it belongs to no one. ibid (n 1).

[5] The United States of America is an exception to this rule. G Gordon, J Paterson & E Usenmez, *Oil and Gas Law: Current Practice and Emerging Trends* (2nd ed. Dundee University Press, 2011) 65.

[6] Now CAP 3 A18 Laws of the Federation of Nigeria, (LFN) 2004. See Petroleum Act, 1969.

[7] Cap. E 17 Laws of the Federation of Nigeria, (LFN) 2004. See the EEZ Act 2004.

[8] Section 2(1-2) of the Petroleum Act 1998.

[9] 'Comparative studies has now shown that petroleum is capable of being owned. In some province in Canada, private ownership of oil and gas in situ still exists. This is however, an exception rather than the rule. Some other provinces have vested oil and gas in the crown. For example, in the province of Alberta, private ownership of oil and gas in situ constitutes 10% of the mineral rights holdings, while in New Brunswick, all oil and gas are vested in the crown, just like in Nigeria. See Lawrence Atsegbua, 'The Development and Acquisition of Oil Licences and Leases in Nigeria' (March, 1999) Organization of the Petroleum Exporting Countries 55

1.3 The International Law and Petroleum Resources

The United Nations Convention on the Law of the Sea, 1982 (UNCLOS)[10] is the most recent Convention governing the activities of states in terms of ownership of the seas and the extent of economic activities that each state is allowed to do.[11] In fact, it is a 'legal order for the seas and oceans that facilitates international communication, promotes the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources[12]. This is important as most petroleum resources are explored from seas. It has been provided by the UNCLOS, 1982 that there are four maritime zones recognized; which are the Territorial Sea (TS), Contiguous Zone (CZ), Exclusive Economic Zone (EEZ) and lastly, the Continental Shelf (CS).[13]

The UNCLOS vests on the sovereign states ownership of natural resources within their territorial land, territorial waters and economic exclusive zones[14]. It further

[10] There were UNLCOS I (1958) and UNCLOS II (1960). See V Prescott & C Schofield, *The Maritime Political Boundaries of the World*, (Leiden and Boston, MartinusNijhoff Publishers, 2005).

[11] According to SHI Jiuyong, the law of maritime delimitation can be said to have developed in three phases. The first phase was prior to 1958 when the rules of international law governing the delimitation of maritime spaces were not codified. As such customary international law recognized only the sovereignty of a coastal state over the waters immediately adjacent to its coast which is normally to a distance of 3 nautical miles otherwise (nm)- the territorial sea. At that time, some states claimed a zone of high seas contiguous to the territorial sea or a contiguous zone for purposes of preventing and punishing infringement of their custom, immigration, fiscal and sanitary laws and regulations. At that time no customary law existed with respect to a general right to exercise sovereignty in maritime areas beyond the territorial sea.

The second phase was between 1958 and 1982 when the law of maritime delimitation was governed by the 1958 Geneva Convention (viz. the convention on Territorial Sea and the Contiguous Zone, the Convention on the Continental shelf, the convention on the High seas and the Convention on Fishing and Conservation of the Living Resources of the High seas). During that phase, territorial sea of 12nm in breadth was increasingly recognized by states to continental shelf.

The third phase is subsequent to 1982, when the conclusion of UNCLOS added to the territorial sea, contiguous zone and continental shelf fourth maritime area where states were entitled to exercise sovereign rights- the exclusive economic zone. See The Wang Tieya Lecture in Public International Law delivered by H.E Judge SHI Jiuyong on the occasion of the second Wang Tieya Award on 11 March 2010 at Wuhan University Institute of International Law.

[12] ConstantinosYialliorades slides presented by Tina Hunter on International Maritime Boundaries and Joint Petroleum Development Agreements to Oil and Gas Enterprise Management MSC Class on the 25 Jan. 2018.University of Aberdeen.

[13] Each of the maritime zones involves different rights for the coastal state Lecture on *International Maritime Boundaries* delivered on the 9 November 2009 at the University of Aberdeen by Dr. John Paterson. M OIgiehon, 'Present International Law on Delimitation of the Continental Shelf'(2006) IELTR 208;The Wang Tieya Lecture in Public International Law delivered by H.E Judge SHI Jiuyong on the occasion of the second Wang Tieya Award on 11 March 2010 at Wuhan University Institute of International Law

[14] UNCLOS, 1982: Part 2 Article 2

provides for the delimitation of the territorial sea and exclusive economic zones as a way of resolving disputes between two or more States with opposite or adjacent coasts. It is common knowledge within the oil industry that every 'seconds of time' that oil operation is being delayed due to a disagreement or any technical issue, significant costs/loss are incurred. Because petroleum resources are fugacious in nature, they can straddle between two opposite borders and this can cause serious disagreements between the boundary owners. Part V of UNCLOS 1982 provides that coastal states have sovereign rights in a 200vnautical miles EEZ with respect to natural resources and economic activities, and exercise jurisdiction over marine science research and environmental protection. All other states have freedom of navigation and over flight in the EEZ, as well as freedom to lay submarine cables and pipelines but the freedom does not include the territorial zone. Article 74(1-4) of UNCLOS, 1982 provides that:

> The delimitation of the exclusive economic zone between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution. If no agreement can be reached within a reasonable period of time, the States concerned shall resort to the procedures provided for in Part XV. Pending agreement as provided for in paragraph 1, the States concerned, in a spirit of understanding and cooperation, shall make every effort to enter into provisional arrangements of a practical nature and, during this transitional period, not to jeopardize or hamper the reaching of the final agreement. Such arrangements shall be without prejudice to the final delimitation. Where there is an agreement in force between the States concerned, questions relating to the delimitation of the exclusive economic zone shall be determined in accordance with the provisions of that agreement.

The application of the above provision on boundary delimitation has been exemplified in the case of Ghana v Côte d'Ivoire[15] the provisions of UNCLOS were applied to solving a boundary disputes between the two nations. Ghana and Côte d'Ivoire are states that are 'adjacent to each other in the Gulf of Guinea on the Atlantic Ocean – a maritime area containing large reserves of petroleum resources

[15] Dispute Concerning Delimitation of the Maritime Boundary Between Ghana and Côte D'ivoire in the Atlantic Ocean International Tribunal or the Law of the Sea 23 September 2017 Case No 23. Available online athttps://www.itlos.org/fileadmin/itlos/documents/cases/case_no.23_merits/C23_Judgment_23.09.2017_corr.pdf. Accessed 16/03/18.

which both States have been eager to exploit'.[16] 'In 2007, the discovery of the major Jubilee oilfield 32nm off the Ghanaian coast attracted huge interest from international investors in Ghana's hydrocarbon potential. In March 2009, the Tweneboa, Enyenra and Ntomme (TEN) fields were discovered 3nm east of Jubilee. It should be noted here that the TEN and Jubilee oilfields were all under development by a consortium of companies led by London-based Tullow Oil before the maritime delimitation was brought into bilateral negotiations between the parties. Côte d'Ivoire raised objection to Ghana's ongoing oil activities, asserting that they were being conducted in the Ivorian maritime area. After that, the parties agreed to establish the 'Joint Ivorian-Ghanaian Commission on Maritime Border Demarcation', and maritime delimitation negotiations commenced. On 3 December 2014, after little progress in diplomatic negotiations, Ghana and Côte d'Ivoire agreed to submit the maritime boundary dispute to the Special Chamber of ITLOS. Both Ghana and Côte d'Ivoire are parties to UNCLOS and by implication the Convention was applicable to their dispute as a matter of treaty law'.[17] Judgment was entered for Ghana at the end of the dispute.[18]

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[16] Dispute Concerning Delimitation of the Maritime Boundary Between Ghana and Côte D'ivoire in the Atlantic Ocean International Tribunal or the Law of the Sea 23 September 2017 Case No 23. See also ConstantinosYialliorades 'Part I: Analysis of Dispute Concerning Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean' 2017 available at file:///C:/Users/t01ijv17/AppData/Local/Packages/Microsoft.MicrosoftEdge_8wekyb3d8bbwe/TempState/Downloads/Part%20I%20Boundary%20disputes%20%20Ghana%20and%20Côte%20dI.pdf. Accessed on 16/03/1.

[17] ibid. See also Dispute Concerning Delimitation of the Maritime Boundary Between Ghana and Côte D'ivoire in the Atlantic Ocean International Tribunal or the Law of the Sea 23 September 2017 Case No 23 [Judgment, para 9199].

[18] 'For the third and final stage of delimitation, the Special Chamber employed an ex-post facto (dis)proportionality test to verify that the provisional equidistance line did not produce an inequitable result by reason of any marked disproportion between the ratio of respective coastal lengths and the ratio between relevant maritime areas allotted to each party [para 533]. It held that the ratio of relevant areas was Ghana 139km: Côte d'Ivoire 352km (approximately, 1: 2.53); the ration of allocated maritime areas was approximately 1 : 2.02 in favour of Côte d'Ivoire. The Special Chamber concluded that the equidistance line is the single maritime boundary for the territorial sea, EEZ and continental shelf within and beyond 200nm [para 540]. The established boundary is a strict equidistance favouring Ghana.

According to Côte d'Ivoire, Ghana's hydrocarbon activities in the relevant area constituted a violation of Côte d'Ivoire's sovereign rights over its continental shelf. Ghana had continued with several drilling operations in the TEN oilfields and, crucially, the TEN fields were located in the maritime area claimed by Côte d'Ivoire. Nevertheless, the Special Chamber considered that, in the case of overlapping continental shelf claims, 'both States concerned have an entitlement to the relevant continental shelf on the basis of their relevant coasts', and that 'only a decision of delimitation establishes which part of the continental shelf appertains to which of the claiming States' [para 591]. Therefore, it held that hydrocarbon activities undertaken by a State in an area subject to overlapping claims, before the area in question has been delimited by adjudication, does not give rise to international responsibility of that State – even when it turns out that these activities were conducted in an area belonging to the other claiming State [para 589].

The second part of this post will comment on some of the key issues raised in the judgment, particularly the question of State responsibility and the Special Chamber's treatment of Article 83(1) and (3) of UNCLOS within the context of unilateral petroleum operations in disputed maritime areas.

In two important ways, the Ghana/Côte d'Ivoire judgment has demonstrated the functionality of dispute resolution processes under Part XV of UNCLOS, both in the context of maritime delimitation disputes and more generally.

First, the ITLOS Special Chamber evidenced a desire to contribute to the development of consistent delimitation jurisprudence, and confirmed that the 'equidistance/relevant circumstances method' is now standard in a delimitation process – regardless of whether the coasts of claiming States parties are opposite or adjacent to one another. Importantly, it adhered to the three-step methodology identified and employed by the International Court of Justice (ICJ) in Black Sea. It did so by drawing a provisional equidistance line between the relevant coasts, considering the factors which might warrant adjustment of that line, and then applying an ex-post facto (dis)proportionality test to verify that the delimitation line was equitable. Notably, the Special Chamber maintained consistency with recent maritime delimitation jurisprudence by underscoring the primacy of criteria associated with coastal geography (concavity, coastal length, etc.) and ignoring factors related to offshore oil activities or the presence of seabed resources in the relevant area.

Second, the Ghana/Côte d'Ivoire judgment provides valuable analysis of States' UNCLOS obligations with regard to unilateral petroleum activities in disputed maritime areas. It indicates that, prior to an international judgment attributing the disputed area to the complaining State, the initiating State's unilateral actions on the EEZ or continental shelf of that area will not have breached the former's sovereign rights if the latter can show that it acted in good faith and with the honest belief that those areas were within its territory [para

It is suggested here that the Special Chamber's reasoning might spell trouble for other maritime boundary disputes, especially in oil-rich regions. If misinterpreted, the finding that an initiating State bears no international responsibility for alleged violations of the other claiming State's alleged rights could encourage more unilateralism in areas with seabed resources. A claiming State may seek to move faster towards oil development and production in the disputed area, with a view to creating a fait accompli which renders nugatory or of no effect the final decision of a court or tribunal.

The Special Chamber maintained consistency with this judicial practice: it required Ghana to refrain from disclosing exploration data to private-sector companies to the detriment of Côte d'Ivoire and to suspend the drilling of new wells in the disputed area [Order of 25 April 2015, para 108(b)], but it did not order Ghana to suspend all ongoing or future seismic surveys. Therefore, in the absence of agreed maritime boundaries, unilateral seismic surveys do not immediately raise questions of irreparable infringement of the claimant party's rights; nor do they justify the prescription of interim protection measures (such as immediate cessation of seismic activities). Presumably, this is due to the perception that seismic testing on seabed, subsoil and superjacent waters has a lower intrusiveness threshold than the drilling of wells.

Also important in this regard is the Special Chamber's decision to prescribe the suspension of new drilling through its Order. Ghana's oilfield projects were unaffected if already in the development and production phases. This finding suggests that the right to interim protection for a complaining State could be weakened by the other claiming State's advanced petroleum development operations in the disputed area. Indeed, if such operations have progressed to the point of drilling, an adjudicating body may find, as the Special Chamber did, that suspension of all operations poses an 'undue burden' on the initiating party and risks harming the marine environment through 'deterioration of equipment' [Order of 25 April 2015, paras 99-100]. Thus, when considering an application for provisional measures, the court or tribunal must inevitably

In application of the provisions of the UNLCLOS, the Special Chamber of ITLOS delimited boundary in accordance to the UNCLOS. The Special Chamber concluded that the equidistance line is the single maritime boundary for the territorial sea, EEZ and continental shelf within and beyond 200nm.[19] The established boundary is a strict equidistance favouring Ghana.[20]

1.4 Access to Petroleum Resources

There are various ways[21] in which investors desiring to get access to petroleum resources can use in different parts of the world. What method to use is totally up to

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consider the preservation of both States' sovereign and economic rights. This may be adjudged in its final judgment on merits.

If the above analysis is correct, then at which stage of unilateral oil and gas operations should the complaining State seek provisional protection measures? Previous judgments of international tribunals, along with the relevant academic literature, suggest that provisional measures are legally and factually justified only in relation to drilling (which necessarily has a higher impact threshold than seismic surveys). However, the fact remains that any drilling – be it exploratory, appraisal- or development-related – causes irreversible damage and permanent modification of the continental shelf, which no form of compensation can remedy. In such circumstances, provisional measures would not preserve the parties' alleged rights pendentelitis. It appears, therefore, that the optimum moment to seek interim protection is before commencement of drilling operations. If the complaining State received no pre-drilling notice from the initiating State, it could invoke this factor during a trial on merits as a violation of the latter's due diligence obligations under Articles 74(3) and 83(3) of UNCLOS. Inevitably, however, this would never restore the continental shelf.

The ITLOS Special Chamber's judgment in Ghana/Côte d'Ivoire came down overwhelmingly in favour of a single multi-purpose boundary, both within and beyond the 200nm limit, based on the principle of equidistance. It refuted the existence of a tacit agreement as to the maritime boundary, but upheld an unadjusted equidistance boundary line favouring Ghana. Thus, the location of all ongoing oilfield-development projects in the area in question remained under Ghana's control and jurisdiction. The judgment illuminated the application of the three-stage methodological approach to maritime delimitation in adjacent geographical situations, thus enriching the doctrine of maritime boundary delimitation within a successful body of law developed by the ICJ and other international tribunals. At the same time, and in view of the Special Chamber's Provisional Measures Order of 2015, the legal reasoning and conclusions of the judgment are significant, in that they shed light on States' rights and obligations under UNCLOS in respect of undelimited maritime areas, and also on the potential to respond meaningfully to unilateral, resource related activities in disputed waters through recourse to provisional measures of protection.' ibid (n15).

[19] ibid at (para 540).

[20] For further understanding of the jurisprudence of the International Court of Justice on delimitation see the following cases, *North Sea Continental Shelf*, ICJ Reports [1969]; *Delimitation of the Maritime Boundary in the Gulf of Maine Area*, ICJ Reports [1984] 246; Maritime delimitation and Territorial Questions between Qatar and Bahrain ICJ Reports, [2001] 40; Maritime delimitation of Black Sea Romania v Ukraine, ICJ Reports; Cameroon and Nigeria, Judgment of October 10, ICJ Report 2002; Qatar and Bahrain ICJ Reports, [2001]; Timor Leste v. Australia case (2013) 40 http://www.icj-cij.org/en/case/156. Accessed 21/03/18.

[21] Service contract, risk service contract, technical service, Joint Operating Agreement ('Under a service contract, the IOC provides its technical services to the State to explore and develop oil and

the owner of the resources. The focus here will be on licence and production sharing contract (PSC). This is because the UK favours the licencing regime while Nigeria favours PSC. Licencing and PSC are legal documents that spell out the rights, duties and obligations of the parties in the exploration and production of petroleum resources.

1.4.1 Licence

According to Gordon, 'a licence is a permission that authorises an activity the conduct of which would otherwise be unlawful'.[22]In a licencing regime, there is little or no room for an investor to negotiate as the licence is a tailored arrangement in respect to the exploration and production of petroleum resources[23]. It has been said that 'licensing regimes are typically standardised and embedded in legislation, such that the terms of each licence are near identical. This regime is most common in developed countries e.g. UK, Norway, the Netherlands, Australia'.[24] In a licencing regime, the investor is 'typically granted complete control over the contract area and complete ownership over any oil and gas it successfully produces with profits subject to tax'.[25]

1.4.2 Production Sharing Contract

In a PSC, the State enters into an agreement with an investor typically an IOC, a domestic national oil company or National Oil Company (NOC) of another state. The agreement or the contract, would be for the investor to provide all the necessary finance as well as technical skills to explore for and produce petroleum resources if found. The representative of the State in the PSC is usually the NOC. In the PSC, the

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gas resources and so in many ways it is similar to a PSC. However, remuneration to the IOC is usually by way of a service fee or payments based on the value of oil produced. The term of a services contract is often very short, leaving an IOC with considerable risk and no guarantee of a long production period'). ('This is not strictly an 'alternative' to the PSC model, but such an arrangement may be used in conjunction with a PSC, a concession or a service contract. In a joint venture, the IOC and the State jointly participate in the exploration and development of the resources.The State is therefore entitled to a share of the profits as a participant, in addition to the other financial benefits it would expect to receive (e.g. profit oil, royalties, taxes); accordingly, the State is required to contribute to the costs of operating and development, unless it takes a 'carried' interest'), Production sharing Agreement, Concessions ('A concession arrangement is generally subject to a greater level of negotiation than a licence. The IOC is typically granted proprietary rights over the contract area and complete ownership over any oil and gas it successfully produces, subject to the payment of a royalty and income tax'). See Allen &Overy, Guide to Extractive Industries Documents – Oil & Gas World Bank Institute Governance for Extractive Industries Programme September 2013. www.allenovery.com Accessed 20/02/2018.

[22] G Gordon *et al* (n 5) at 67.

[23]Allen &Overy, Guide to Extractive Industries Documents – Oil & Gas World Bank Institute Governance for Extractive Industries Programme September 2013. www.allenovery.com Accessed 20/02/2018.

[24]ibid.

[25]ibid.

investor is normally granted a right to the exclusion of others to explore as well as to produce petroleum resource in a specific contract area agreed by the parties. It is also notable that the Investor bears all the exploration risk. If there is no finding, the IOC goes away with nothing, however in the event that there is finding, the IOC recoups its cost of investment through a portion of oil agreed by the parties to be called the 'cost oil'.

It is very critical to emphasize here that the State at every moment of the production remains the owner of all the petroleum resources 'subject only to the IOC's entitlement to a portion of any oil produced on a successful discovery'.[26] The NOC can choose also to be involved in the exploration and production process, but it varies from state to state. It should also be note here that PSC is very much common and use in the developing areas whereas licencing is the preferred choice in the developed countries. A recent example of a PSC entered by the Nigerian National Petroleum Corporation (NNPC) the NOC of Nigeria is the PSC between NNPC and Oranto Petroleum Limited covering OPL 293 in 2016. The PC spells out the rights and duties[27] between the parties in a contractual format.

1.5 Operations in the Exploration and Production of Petroleum Resources.

The operations of the industry players in the exploration and production of petroleum can be very risky especially when there is no due diligence in the compliance of working safely in an environmentally friendly way. The outcome of the Piper Alpha disaster can never be hurriedly forgotten in the history of oil and gas industry in the UK. This is because 167 people died on the Piper Alpha production platform on 6 July 1988.[28] Ever since then, health and safety issues have been taken more seriously every step of the way in the exploration and production of petroleum resources. In the UK for example, the law in place for this is the Health & Safety at Work Act 1974 (HSWA). This legislation 'imposes criminal liability on companies as well as individuals who are in violation' and can lead to award of penalties, fines and imprisonment.[29] In relation to the oil and gas industry specifically, there are extensive regulations in this respect, 'these include the Offshore Installations (Offshore Safety Directive) (Safety Case etc) Regulations 2015 and the Control of Major Accident Hazards Regulations (which came in to force on 1 June 2015, revoking the 1999 Regulations). The legislative regime must be read together with the Approved Codes of Practice (ACOP) and guidance documents produced by the

[26] ibid.

[27] This range from royalty oil, tax oil, cost oil, profit oil, force majeure, dispute resolution etc. See PSC between NNPC and Oranto Petroleum Limited covering OPL 293, 211016.

[28] G Gordon, (n 5) at 204.

[29] P Mace *et al*, *Oil and Gas Regulation in the UK: Overview* (Global Guide: Energy and Natural Resources, 2017).

regulator, the Health and Safety Executive (HSE)'.[30] In a similar vein, in Nigeria, it is the law that before any installation of oil and gas facilities is done, an environmental impact assessment must be conducted.[31] Also a yearly environmental and safety audit of any installation must be properly conducted.[32]

Decommissioning of oil installations can is a significant concern for regulation. The equipment used for the exploration of petroleum resources are enormous and at the end of its life time, they need to be removed and disposed in an environmentally friendly manner. It is crucial to know that first generation oil installations were built without considering decommissioning.[33] But this later changed with time and decommissioning costs are well set aside progressively during production of the field. Looking at the environmental impact, the United Nations Convention on the Continental Shelf, 1958 provides in Article 5(5) that '[a]ny installations which are abandoned or disused must be completely removed'.[34] Same were also followed by the provisions of UNCLOS 1982 and the International Maritime Organisation (IMO)[35] Guidelines 1989 but with slight modification. Article 60(3) of UNCLOS provides thus;

> Any installations or structures which are abandoned or disused shall be removed to ensure safety of navigation…. Such removal shall also have due regard to fishing, the protection of the marine environment and the rights and duties of other states. Appropriate publicity shall be given to the depth, position and dimensions of nay installations or structures not entirely removed.

The Brent Spar case has brought about so many changes in the legal framework of decommissioning of offshore installation in the UK when there was an attempt to dispose the Brent Spar platform in deep water which was vehemently opposed by Greenpeace, an environmental NGO. Part IV of UK Petroleum Act 1998, (as amended by the Energy Act 2008) provides for the decommissioning of installation. It has been the law after 1998, that every installation that is designed must be

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[30] 'The legal status of guidance and ACOPs appear in the relevant publications. An ACOP from the HSE provides practical advice on how to comply with the law and is best practice (that is, if it is followed, the law will be complied with). An ACOP has special legal status. If a party is prosecuted, for example, for a breach of the HSWA, and it is proved that it failed to comply with an ACOP, then it is likely to be found guilty (unless the party can establish that it adopted an alternative approach which is equally robust and in compliance with the law)'.ibid.

[31] Environmental Guidelines and Standards for the Petroleum Industry.

[32] ibid.

[33] ibid.

[34] ibid.

[35] An agency of the United Nations which was established by the Inter-Governmental Maritime Consultative Organisation Convention, 1948. See G Gordon, (n 5) at 290.

designed in a way that allows for complete removal and disposed in an environmentally friendly manner.[36] In Nigeria, there has not been any issue of decommissioning just yet but there are provisions that address the decommissioning in its Petroleum Act, 1969[37] as well as in PSCs.

Another significant area that the law plays a role in the exploration and production of petroleum resources is in dispute resolution. It can be said assertively that disputes are inevitable part of life and so also in the oil industry. So, what the law does is to anticipate such disputes and provide a way of resolution even before any potential dispute occur. In most cases, it found in the PSC and JOA that in an event of any conflict, a method of disputes resolution that is quite fast and encourages future relationship is always the preferred option. It is needless to say that; time is of the essence in the oil and gas industry. And well drafted agreement has an advantage of saving time and resources for the parties.

1.6 Conclusion

It has been seen that the law plays a significant role in the exploration and production of petroleum resources. The extent in which the law has gone can be said is far reaching, from the international perspective to the national as well as agreements. The UNCLOS, 1982, has been invoked in many cases before the ICJ and ITLOS with varying degrees of successes. The Jurisprudence of the ICJ in regards the delimitation of maritime boundary over the years has moved from being inconsistent in decision to being consistent. The *Ghana v. Cote d'Ivoire* case has exemplified the extent of the application of the UNCLOS to boundary delimitation. This work has also moved on to address the role of the law in the ownership of petroleum resources thereby clearly stating the rightful authority to granting access to petroleum resources. The licensing regime and the PSC regime were also looked. It is the opinion of this work that without the law many petroleum resources would not be explored nor produced. Regulating the activities of the oil industry by the laws ensures that lives are not harmed, environment is habitable and petroleum resources adequately utilized.

[36] See Ospar Decision 98/3 on the Disposal of Disused Offshore Installations. See G Gordon, (n 5) 302.

[37] CAP 3 A 18 Laws of the Federation of Nigeria (LFN), 2004. See the Petroleum Act, 1969.