

# EXPLORATION BEYOND THE COAST

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## **ABSTRACT**

In today's era, offshore exploration and exploitation activities has become the most prevalent practice of oil exploitation in the industry. Every passing day we hear of a new discovery in depth of the oceans. Going deeper and deeper into the sea has become a thing of pride for the Nations. But these activities have posed a lot of challenges that are hard to resolve. The deeper a Nation endeavors to go; it will have to go farther away from the coast. At times the jurisdictional limits overlap each other creating an issue of maritime boundary dispute which can escalate into a military conflict, drawing inference from the recent China-Vietnam issue over the South China Sea. The time is not far away when the offshore activities will extend to the "High Seas", area beyond the national jurisdiction. The need of the hour is to answer the question, "Is it time to create a proper governing body or revise the rules of the International Seabed Authority for the advantage of the oil and gas industry?"

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## I. INTRODUCTION

The journey of the evolution of hydrocarbon exploration and production dates back to the early 19<sup>th</sup> century. In 1847, the human mind never imagined the possibility of oil exploration beyond the lands, into the open sea. But it was soon enough that in 1891 the first offshore oil well was drilled into the fresh waters of Grand Lake St. Mary's in Ohio. Further, in less than a century, the world witnessed its first deepwater hydrocarbon exploration. It was in 1980s, discoveries were witnessed in Gulf of Mexico at around 120 meters of depth. And today, there are around 620 oil rigs exploring far beyond the coast, experiencing the various aspects of the depth of the sea.

Offshore drilling has become an increasingly attractive source of hydrocarbons as onshore wells start to run low and the price reaches the point where the extra expenditure required can be justified. The deepwater drilling is emerging into an opportunity that is not only making a nation economically prosperous but is also becoming a reason for a nation's pride. But with economic prosperity comes great responsibility. It is feared that as the offshore oil and gas industry moves into even deeper waters and more extreme environments, the hazards are likely to grow.

Offshore drilling is accompanied with a number of risks, the result of which can lead to unimaginable levels of environmental destruction. The deeper a nation tries to go, the risk of permanent destruction increases. The biosphere, which consists of various types of flora and fauna, needs to be protected from these activities. But the question posed is “Who is responsible to control this irreversible environmental destruction?”.

Currently, the offshore hydrocarbon exploration limits itself to the continental shelf of a country. Hence, this falls within the jurisdiction of a nation. But with fast growing advancements in technology and the ever increasing need for more hydrocarbons, this limit will soon be extended to beyond the jurisdiction of a nation. The days are not far when the world will witness the first ever hydrocarbon exploration in the “High Seas”. But again, this is posed with ‘n’ number of problems. The heated debate now is “Is there any Law, Regulating authority, Governing Body that can possibly monitor activities in the “High Seas”?”, “What about the ever rising environmental concerns because of the exploitation in the “High Seas”?”.

The debate does not end with concerns about climate change or governance of the “High Seas”. Another important challenge faced by the oil and gas industry is its amplifying attachment with the political aspect of the society. It’s often believed that that the oil age will end long before the world runs out of oil. The race to win economic satisfaction is turning uglier and tough with each passing day. As the Nations go that extra mile away from the coast, the possibility of it interfering with another Nation’s jurisdiction increases. This in turn leads to a fight for sovereignty over the land, a fight to prove who is the superior one. If the nations think of exploring beyond their coast, beyond their jurisdiction, what the intensity of this race will be is hard to imagine. “Does United Nations has any method to control this race?”, “Does UN have solutions to deal with above dispute?”. This debate is unresolved and only time can answer this question.

This project will shed some light on the above discussed issues, the repercussions of the same on the oil and gas industry, the need to go deeper into the sea, the UNCLOS and the oil and gas industry and the problems posed by this blooming industry upon the society at large.

## II. THE NEED TO GO DEEPER

OIL, considered as the 'liquid gold', is something that has become an indispensable part of a human being's life. Oil is one of the fundamental needs in the world today. It is needed for plastic, fuel and many more things that are essential for the 'survival of mankind'. It has been observed by various think tanks and research scholars that oil reserves are depleting with each passing day. Because the oil is running out, countries have been looking elsewhere to get their oil, and as the reserves on the mainland are exhausting; they resort to offshore drilling as an alternative option.<sup>1</sup>

Today, oil and gas dominate our lives, and their decline will change the world in radical and unpredictable ways. An expert from the field said that, "about 944bn barrels of oil has so far been extracted, some 764bn remains extractable in known fields, or reserves and a further 142bn of reserves are classed as 'yet-to-find', meaning what oil is expected to be discovered. If this is so, then the overall oil peak arrives next year."<sup>2</sup> Further, it is said that the global oil production is expected to decline steadily at about 2-3% a year, leading to the increase in the price of everything

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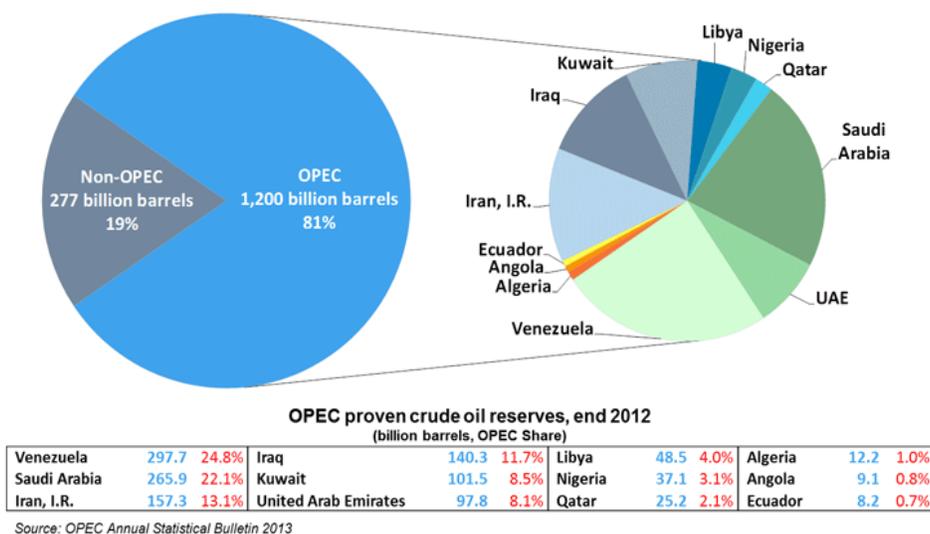
<sup>1</sup> <http://myoildrilling.info/pros-and-cons-of-offshore-drilling/>

<sup>2</sup> Colin Cambell, Oil Depletion Analysis Centre

associated with the survival of the mankind.<sup>3</sup> Considering these dangerous crisis, the society's urge to find an alternative source of energy is becoming uncontrollable. This has a direct effect on the oil and gas industry as the ever depleting reserves of oil will soon lead to the end of this industry. Because of this very reason, nations are going to unimaginable levels to keep this oil running.

Further, according to current estimates, more than 81% of the world's proven oil reserves are located in OPEC Member Countries, with the bulk of OPEC oil reserves in the Middle East, amounting to 66% of the OPEC total.<sup>4</sup> This makes other nations, not having sufficient oil reserves to support their population, depend on the Middle-Eastern countries for their survival. This further strengthens the very urge for more oil. Hence, nations, who do not have enough reserves in their mainland, are endeavoring into new search for the liquid gold beyond their coasts.

### OPEC Share of World Crude Oil Reserves 2012



In less than 20 years, from the discovery of the first deepwater oil reserve, exploration in deepwater and ultradeepwater has expanded exponentially. From its beginnings in 1897 to its pinnacle as an industry whose sites are visible from outer space, offshore drilling has pioneered technologies, given rise to the tallest structures on Earth, transformed the seabed of the Earth's continental shelves into a manageable fossil-

<sup>3</sup> <http://www.theguardian.com/science/2005/apr/21/oilandpetrol.news>

<sup>4</sup> <http://www.opec.org/>

fuel resource, and provided work for millions of people.<sup>5</sup> About 7% of the world's hydrocarbon resources are believed to lie in deepwater reservoirs, estimated to total some 330 billion barrels of oil equivalent. Nearly 40% of which this is yet to be discovered. These resources could meet worldwide demand for five to seven years and contribute significantly to the replacement of hydrocarbon reserves.<sup>6</sup>

But the most important question posed is, what is deepwater? In an interview, Malcolm Webb<sup>7</sup>, stated there is “no agreed industry definition of what constitutes deep water. When we started in the North Sea 30 to 40 years ago, depths of 100 to 700 feet would have been regarded as deep water; and, as our abilities and technologies have moved forward, so the definition of what is deep has moved with it. Depths west of Shetland in the UK vary from approximately 500 feet to 6,000 feet plus.” Presently, deepwater is defined as a depth of 500 meters or more, while water depths of more than 1500 meters are considered as ultradeepwater.<sup>8</sup> With the increasing demand of oil and the advancements in technology, the days are not far when the depths of the “High Seas” will become the new deepwater.

The effect of this deepwater exploration endeavor can be elucidated as the following:

## **A. ADVANTAGES**

### **a. Price control**

- With the depleting reserves and increasing demand of oil, the price of oil has become very unstable. In 2013 the price of oil reached a \$120 per barrel. Currently, the price of oil revolves around \$104 per barrel. This price volatility is affecting the economies of many nations. While a given oil price increase may be perceived positively by oil exporting countries and negatively by importers, an increase in oil price volatility (i.e. consecutive positive and negative oil price shocks) increases perceived price uncertainty for all countries – regardless of their trade balance. Such oil price volatility reduces

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<sup>5</sup>Deepwater Development: What Past Performance says about the Future by Jarrett Dragani and Maxim Kotenev, *The Way Ahead*, Vol. 9// no.1// 2013

<sup>6</sup><http://total.com/en/energies-expertise/oil-gas/exploration-production/strategic-sectors/deep-offshore/challenges>

<sup>7</sup> Chief Executive Officer, Oil and Gas, UK

<sup>8</sup> *Supra* 5

planning horizons, causes firms to postpone investments, and may require expensive reallocation of resources.

- There are various reasons for this oil price volatility, for instance, political incidents in the Middle East. One of the major reasons is also the decrease in the oil reserves. With new discoveries in the offshore regions, there is a big chance to control this oil price uncertainty and reach a stable price which is beneficial to both the exporter and the importer.

#### **b. End of oil dependency**

- As stated earlier, 66% of current oil reserves are in the Middle-Eastern countries. Many nations, who do not have enough reserves in their mainland import oil from these middle-eastern nations. This makes them dependent on the other nations to suffice their need. As a result, many nations, with a goal to end this dependency, are trying to explore oil beyond their coasts. The effect of this, other than becoming self-sufficient in oil, will also be economic prosperity.
- One of the biggest examples of this is USA's drilling projects into the Gulf of Mexico.

### **B. CHALLENGES**

#### **a. Environmental Challenges**

- In recent years there has been a rapid expansion of two industries (fishing and oil production) that can currently operate down to water depths of at least 2,000 m. These operations pose a potential threat to the deep-sea environment of high-seas areas. There are also a number of existing threats to open ocean areas, e.g. direct and indirect impacts on fish, seabirds and cetaceans. Further, there are a number of suggested or developing technologies that could pose a threat to high-seas areas, e.g. CO<sub>2</sub> dumping, biotechnology, the exploitation of gas hydrates and hydrothermal vent heat energy.<sup>9</sup>

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<sup>9</sup> The Status of Natural Resources on the High Seas by The Southampton Oceanography Centre & Dr. A. Charlotte de Fontaubert, Published by WWF International, Gland, Switzerland IUCN, Gland, Switzerland and Cambridge, UK

**b. Claiming the ocean**

- United Nations Convention on the Law of the Sea (UNCLOS), the law that governs the water bodies of this world gives every nation a jurisdiction over water bodies extending upto 200 nautical miles from its coast, termed as the Exclusive Economic Zone (EEZ). Further, it also gives Coastal states and exclusive right over its continental shelf which can at the max extend upto 350 nautical miles. The challenge that this demarcation poses is that, at some places, this EEZ and Continental Shelf overlap each other or the EEZ of two nations overlap each. This makes it difficult to determine who has the right over a particular area. This is a rising concern because of the issue between China and Vietnam over a particular area of oil exploration in the South China Sea.

**c. Beyond the jurisdiction of a nation, into the “High Seas”, who is in charge there**

- Further, UNCLOS states that area beyond the EEZ and Continental Shelf of a nation is the “High Seas” and all nations have equal right with respect to the same. The challenge here is that, if each and every nation gets equal right over the “High Seas” then what will happen if a particular portion of “High Seas”, which is rich in oil reserves, is claimed by a number of countries at the same time. There is no specific solution to this problem as the UNCLOS is silent on the aspect of exploration and exploitation of the “High Seas”.

### **III. REPERCUSSIONS ON THE OIL AND GAS INDUSTRY**

Seeing the need for sustainable energy, countries today have explored their territories in search for substantial energy source. But recently, these sources started declining in production. Due to the decline in the onshore sources, the Nations have started exploring and exploiting oil beyond their coast. As the Nation goes deeper into the waters and further offshore with improving technologies, boundary disputes are increasing. The UN, over the years has taken various efforts to resolve these boundary disputes as the UNCLOS is inadequate to deal with this issue. Boundary dispute between Australia and East Timor, Japan and Russia were resolved through mutual agreement between the countries to jointly exploit and regulate the oil exploited from the disputed area. Further, methods of Arbitration, Negotiation and Mediation have also been used to solve this issue. But there are two major disputes that stand unresolved currently and pose a serious threat to the security and peace of this world.

#### **A. RECENT TENSIONS**

##### **a. China and Vietnam**

- In the first week of May, 2014, the World witnessed a clash between China and Vietnam in the South China Sea. The reason for the same was exploitation of hydrocarbons in a particular region which is claimed by both the nations. The clash took an ugly turn when naval vessels of China and Vietnam rammed each other and China used water attack methods, trying to tilt the entire situation into a military conflict.
- The Chinese claims the region in dispute to be a part of its EEZ as it claims jurisdiction over Paracel Island. The area in dispute falls within the 200 nautical miles radius of this island, hence, becoming a part of its EEZ.
- Vietnam claims the disputed region to be a part of its Continental Shelf. Article 81 of the UNCLOS gives a coastal state the exclusive right to regulate and authorize drilling activities in its Continental Shelf.

#### **b. Israel and Lebanon**

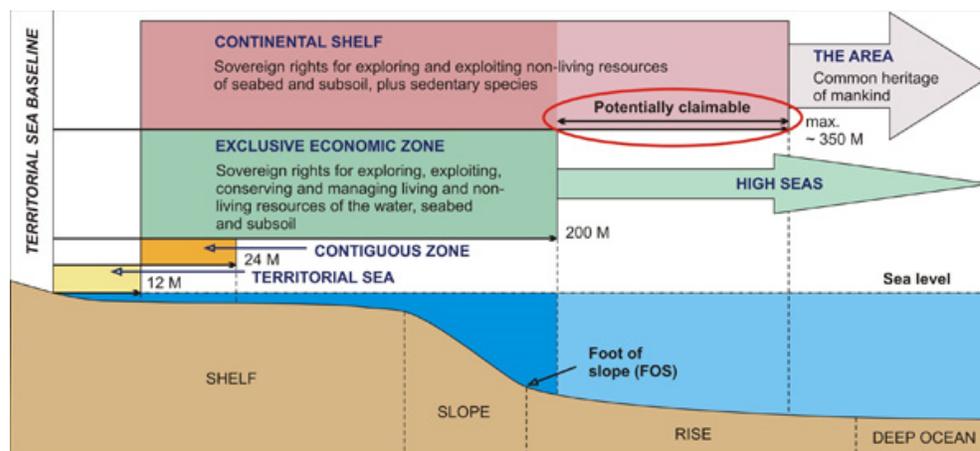
- Israel and Lebanon have been at odds over their maritime borders for decades, and recent discoveries off Israel's coast in what's called the Levant Basin could create more conflict between the wary neighbors. Israel considers the waters where the reserves are located to be part of its EEZ, and in the past it has balked at awarding oil and gas exploration licenses in the area.
- A variation of series of events has occurred with respect to the above dispute. These include Israel-Cyprus Agreement on the Delimitation of their EEZ (2010), Lebanon-Cyprus Agreement on the Delimitation of their EEZ (2007), a unilateral proclamation submitted by Lebanon to the UN of charts and lists delimiting its EEZ. Lebanon treats the delimitation of Israel's and Cyprus' EEZ as an infringement upon part of its southern EEZ.
- Acting as a mediator, the U.S. has been trying to find a solution to the dispute but to date has been unsuccessful.
- These energy discoveries also pose a risk towards escalating political tension in the region. Indeed, in addition to the great opportunities for both countries, and mainly for their energy sectors and their social and economic

modernization and development, these discoveries could lead to geopolitical and security crises that could, at worst, result in armed conflict. A state of war already shadows the Lebanon-Israel relationship, namely the 2006 Israel-Lebanon War (Israel-Hezbollah War).<sup>10</sup>

## B. PROVISIONS OF UNCLOS

The UNCLOS has divided the sea along the coastline of a State into six categories. Out of these six, UNCLOS gives jurisdiction to the coastal states only with respect to four categories. These are territorial sea, contiguous zone, Exclusive Economic Zone and the Continental Shelf.

1. Territorial Sea refers to the sea upto 12 nautical miles from the coast line of a State.
2. Contiguous Zone refers to the sea upto 24 nautical miles from the coastline of a State.
3. Exclusive Economic Zone refers to the sea upto 200 nautical miles from the coastline of a State.
4. Continental Shelf of a coastal State can extend upto 350 nautical miles from its coastline.
5. The sea beyond the EEZ is referred to as the “High Seas”.
6. The area beyond the maximum claimable point of the continental shelf is referred to as the Area.



<sup>10</sup> Oil and Gas Exploration in the Levant Basin: The Case of Lebanon and Israel by Abu-Gosh and Dr. Rafael Leal-Arcas

The problem with this classification of the sea is that at certain areas, two or more States' sea overlaps with each other. This lead to various boundary disputes.

- Article 15 has tried to resolve this problem in terms of opposite or adjacent coastlines of States. It says that if 2 States territorial sea overlap each other, then in that case the territorial sea of each State shall be decided by dividing the water body into equal portions.
- The above cited article is the only specific solution that the UNCLOS provides for boundary disputes. In case of a boundary dispute between overlapping EEZ or Continental Shelf, the UNCLOS only provides for a mechanism to resolve the same. It states that in case of a dispute regarding delimitation of the EEZ, it should firstly be referred to the International Court of Justice (ICJ). Secondly, in case the dispute is not resolved at the ICJ, it should be referred to the International Tribunal of the Law of the Sea.<sup>11</sup>

At the time of discovery of trans boundary deposits, three factual situations may exist;

i) States have entered into an agreement such as Joint Development Agreements (JDAs) or unitization that govern the manner in which they jointly develop such deposits

ii) States have entered into only a delimitation agreement that address the trans-boundary deposits in a non-definitive manner

iii) States have no delimitation agreement.<sup>12</sup>

International law prohibits unilateral exploitation of trans-boundary resources in disputed maritime areas without cooperation from the other state. Under UNCLOS, there is an obligation on states "to make every effort to cooperate". Even if a state is not a signatory to UNCLOS, there is ample evidence to support the view that, that obligation exists under International Customary Law. UN General Assembly Resolutions like Resolution 3281(XXIX), international judicial opinions and relevant bilateral state practices are evidence of such custom. Some scholars argue that states have an obligation to cooperate in seeking to reach agreement, and in the absence of such agreement, have an obligation to exercise mutual restraint. There is however, no

<sup>11</sup> Article 74, United Nations Convention on the Law of the Sea

<sup>12</sup> Exploitation of Offshore Trans boundary Oil and Gas Reservoirs; An International Law Perspective by *Patson W. Arinaitwe*

settled state practice obliging states to enter into a particular arrangement. The ICJ in the *North Sea Continental Shelf Cases* supports the view that obligations of countries to negotiate international border disputes including negotiation around development of common hydrocarbons reservoirs does not require the countries to enter into an agreement, but “to pursue them as far as possible with a view to conclude the agreements”.<sup>13</sup>

### **C. EEZ AND CONTINENTAL SHELF-THE UNRESOLVED DISPUTE**

Further, an important debate with respect to maritime boundary disputes is that, what prevails in case of a dispute between one State’s EEZ and the other State’s Continental Shelf. The debate is currently unresolved. The ICJ in the series of *North Sea Continental Shelf cases* focused on the principle of natural prolongation of the land of the State. This in turn gave coastal states an exclusive right to exploit natural resources in the area naturally prolonged as they got jurisdiction over the same. Further, the UNCLOS also clearly states that a coastal State has absolute power to exploit natural resources in its continental shelf. Also, Chapter V on EEZ in the UNCLOS makes the entire provision with respect to EEZ subject to Chapter VI that is with respect to Continental Shelf. But this judgment does not resolve the debate as to which one is superior.

The same debate was also sparked in Arbitration between Barbados and Trinidad and Tobago in the year 2006. The tribunal did not clearly resolve the dispute but states that in case of delimitation, the right of a State over its natural prolongation must be protected. Indirectly, it gave more importance to Continental Shelf as compared to EEZ.

The recent trend with respect to maritime boundary disputes relies mostly on delimitation with the help of arbitrators and mediators or entering into agreements to jointly exploit the disputed area. But there is still not even one substantive law which clearly defines the method to be adopted in case of maritime boundary disputes. Mutual delimitations are often time consuming as one State will always have a problem with the decided limits. Further, joint agreements are not that easy to

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<sup>13</sup> *ibid*

formulate. Maritime boundary dispute is a political issue and at times it does overlap economic considerations of a State. Also, with sovereignty being the basis of independence, it becomes all the more important to define boundaries before endeavoring into any activity that requires a huge amount of time, skill and money.

With the above cited information, it is evident that UNCLOS is not exhaustive on the issue of maritime boundary dispute. Maritime boundary dispute is an aspect that will always affect the oil and gas industry, considering the rising trends of offshore exploration. The questions that needs to be answered is that “Is the UNCLOS sufficient with the rising trends of offshore exploration activities?”.

#### **IV. UNCLOS, “HIGH SEAS”, THE AREA AND THE OIL AND GAS INDUSTRY**

The progress in the oil and gas industry has reached a phase where exploration and exploitation activities in the deeper waters are becoming the pride of a State. The days are not far when the States will not hesitate to go that extra meter in to the depth and that extra mile away from its coast, ultimately reaching the “High Seas”. But this will pose ‘n’ number of difficulties.

Part VII of the UNCLOS defines “High Seas” as the sea beyond the territorial sea, Contiguous Zone and the EEZ. Further it gives complete access to the “High Seas” to each and every State, whether coastal or land-locked. Article 87 (1) (f) gives each and every State freedom to conduct Scientific Research in the “High Seas”. But, UNCLOS does not give any provisions with respect to the exploitation of the “High Seas”, in case of discovery of hydrocarbons in furtherance of the “Scientific Research”.

Further, Article 241 of the UNCLOS very clearly states that marine scientific research shall not constitute the basis for any legal claim to any part of the marine environment and its resource. Through this very provision, UNCLOS has given uncontrolled access to each and every State. Drawing an analogy with the possibility of military conflicts due to maritime boundary dispute and oil and gas exploration, it’s hard to imagine the situation in case of a dispute over the reserves, in an area not within the

jurisdiction of any State, by several States. We might just witness the 3<sup>rd</sup> World War in that case. Further, this provision has also enhanced the already glorious status of the 1<sup>st</sup> world countries. With no legal method to fight for one's right and the growing the discovery of oil in the "High Seas", the developing countries and the underdeveloped countries will be crushed in this race.

Article 251 states that States shall seek to promote through competent international organizations the establishment of general criteria and guidelines to assist States in ascertaining the nature and implications of marine scientific research. Not many efforts have been taken with this aspect up to date. All the initiatives with respect to regulation of the "High Seas" primarily focus on the conservation and sustainable use of marine biological diversity beyond national jurisdiction.

Further, through Part XI, the UNCLOS has established an intergovernmental organization known as the International Seabed Authority (ISA), to govern and manage the minerals in the "High Seas" beyond the claimable continental shelf. The rules, powers, working and organization of the ISA are very vague. UNCLOS does not give the ultimate authority to ISA in case of any discovery and future prospects of exploitation in that area. A State or Enterprise or an Organization has to seek written permission through a written application to explore and exploit the area, but the rules, procedure, method is very vague. Further, the ultimate method of selection of the right applicant is "Financial and Technical qualifications". The 1st World country are bound to have an upper hand in this criteria which leaves the developing and underdeveloped countries far behind in the race. This clause, though in a way rational, is unclear and needs to be honed and sharpened. The UNCLOS fails to do so.

Two noteworthy initiatives are the UN Ad-Hoc Open ended Informal Working Group to "study issues relating to the Conservation and Sustainable use of Marine Biodiversity in areas beyond national jurisdiction" and New UNCLOS implementing Agreement on Marine Biodiversity in areas beyond National Jurisdiction. These two initiatives focus on the environmental aspect of the exploitation in the area beyond national jurisdiction.

## V. TOLL ON THE ENVIRONMENT

The deeper a Nation goes into the sea, the possibility of accidents increases. As this possibility increases, the toll on the environment increases. One single oil spill below the landmass, into the sea can risk the lives of many marine flora and fauna, their ecosystem, and the health of the ocean and indirectly affects the society.

Oil and gas industry affects people through climate change, onshore and offshore exploitation and direct and indirect effect on the national economy. Pollution through offshore oil and gas exploitation can be classified into three categories. First is intentional discharge into the sea. This has considerably decreased currently because of the increasing awareness about the deteriorating condition of the environment and the need to protect it. The second kind of environmental pollution is accidental discharge. Offshore drilling occurs at such a depth and pressure that if the climate is not thoroughly inspected, the possibility of accidental environmental pollution increases. Other than the UNCLOS, there are also a few environment protection initiatives that have been taken at the global level to protect the environment from this kind of discharge. The third kind of environmental pollution is operational pollution that occurs through the normal operation of the offshore installations. This kind of pollution has been the subject matter of various discussions and has been the agenda of various conferences both at the global and the national level.

The approach recommended by the international community, to protect the environment, is that plans for oil and gas exploitation and the plans to protect the marine environment must be developed within National sustainability strategies. This was discussed at the World Summits on Sustainable Development at Rio (1992) and Johannesburg (2002).

One way of helping to develop National Strategies for the oil and Gas and marine sectors is to carry out a Strategic Environmental Assessment (SEA). SEAs are recommended by the World Bank group, the European Union and many other organizations including the Extractive Industries Review.<sup>14</sup>

At present over 70 international level agreements and initiatives are present to regulate marine environmental pollution. But not even one of these legally binding agreements is specifically focused at the offshore oil development.

## **A. INITIATIVES AT THE INTERNATIONAL LEVEL**

Major agreements for instance Convention on Biological Diversity, UNCLOS, etc. has not specifically dealt with the topic of offshore oil development and their effect on the environment. But they lay down some general principles to be adopted and followed by each State for the protection of the marine environment. A few of these principles are stated below.

### **a. The UNCLOS**

- It contains obligations that States shall take all means necessary to control pollution of the marine environment, including minimizing discharges from offshore oil installations to the fullest possible extent; and taking measures for accident prevention and emergency response, and the regulation of the design, construction, equipment, operation and crewing of them; and to carry out environmental impact assessments before starting any potentially harmful activity.<sup>15</sup>

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<sup>14</sup> Environmental Management of Offshore Oil Development and Maritime Transportation by Sandra Kloff and Clive Wicks

<sup>15</sup> ibid

- States shall establish global and regional rules for the control of marine pollution arising from offshore units and seabed activities.<sup>16</sup>
- States need to ensure that sufficient recourse is available under their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution to the marine environment.<sup>17</sup>

**b. IMO: Convention for the Prevention of Marine pollution by Dumping of wastes and other Matter (London Convention)**

- Contains rules for incineration at sea and dumping at sea of waste products generated on land. It contains guidelines (non-legally binding) for the disposal of platforms and other man-made structures at sea.

**c. IMO: International Convention on Oil Pollution Preparedness, Response, and Co-operation (OPRC)**

- Its objectives are to advance the adoption of adequate response measures in the event that an oil-pollution incident does occur; to provide for mutual assistance and co-operation between States.

**d. United Nations Conferences on the Human Environment in 1972 (Stockholm declaration) and in 1992 (Rio declaration)<sup>18</sup>**

- Principle 22 of the Stockholm Declaration and Principles 12 and 13 of the Rio Declaration emphasize the international responsibility of States to develop effective international regimes to address trans-boundary pollution and liability and compensation for environmental damage both within and outside State jurisdiction.
- Chapter 17 of the Rio declaration refers to the needs of addressing environmental impact assessment, contingency plans and human resource development.
- The Rio Declaration includes the precautionary principle: in order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. This implies that where there are threats of

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<sup>16</sup> ibid

<sup>17</sup> ibid

<sup>18</sup> ibid

serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

## **B. UNCLOS, "HIGH SEAS" AND THE ENVIRONMENT**

Further, the UNCLOS in Part XIII states that in case of Marine Scientific Research, States and competent international organizations shall be responsible and liable pursuant for damage caused by pollution of the marine environment arising out of marine scientific research undertaken by them or on their behalf.<sup>19</sup>

But the one important aspect that the UNCLOS fails to recognize is oil and gas exploitation in the "High Seas". Hence, it does not even provide for any mechanism or regulations in case of environmental pollution caused because of the same.

One argument that can be raised against the above cited fact is that all the international agreements dealing with marine environmental pollution focus on the State Responsibility and not on the debate of the region falls within the jurisdiction of one country. This in a way tries to solve the lacunae in the UNCLOS with respect to marine pollution caused by oil and gas exploitation in the "High Seas".

Considering the rapid increase in the levels of depth a Nation is endeavoring to go to find that extra amount of oil, the need of the hour is to form a specific convention, at the global level, that directly governs with the aspect of marine pollution caused by oil and gas exploitation in the sea. the same must also address the issue of oil and gas exploitation in the "High Seas" and the marine pollution that can be caused by the same.

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<sup>19</sup> Article 263 (3), UNCLOS

## **VI. PROPOSALD TO SAVE THE WORLD**

Analyzing the various difficulties prevalent in the Oil and Gas Industry with respect to offshore drilling, the need of the hour is to take that big step and make huge and effective changes to save this World. A few proposals for the same are:

### **A. INTERNATIONAL SEABED AUTHORITY**

UNCLOS did a commendable job by establishing the International Seabed Authority to manage the activities in that area of the sea that is beyond the jurisdiction of any State. But it has faltered in areas such as a proper procedure to select candidate that will get the right to exploit an area. By simply mentioning “Technically and financially sound” is not enough. Special exceptions should be mentioned for the developing and specifically for under developed States.

Further, the provision with respect to ISA is only applicable to member-States. This is harmful for the sea because the States who are not a party to the UNCLOS can do anything in the “High Seas” without any interference by ISA. UNCLOS should widen up the powers of the ISA and make it applicable to the entire world in a manner “Customary Law” is applicable.

## **B. DELIMITATION PROCEDURES**

The rule of natural prolongation should be done away with. In case of overlapping boundaries, the rule mentioned in the UNCLOS for “Territorial Zone” i.e. division of the area in equal portions must be applied. This will reduce the possible of military conflicts due to maritime boundary dispute as the question of what is acceptable to who will never arise.

## **C. SEPARATE AUTHORITY FOR OIL AND GAS INDUSTRY**

A separate authority, at the level of ISA, must be established specifically for the oil and gas activities in the “High Seas”. This is required because of the commercial value of oil and gas and the possibility of how a dispute over oil can change the nature of a minor dispute into a military conflict.<sup>20</sup>

## **VII. CONCLUSION**

“The Stone Age did not end for lack of stone, and the Oil Age will end long before the world runs out of oil.”<sup>21</sup> Oil, the “liquid gold”, has been the center of disputes because of various reasons. The USA’s intervention in Iraq, the recent China-Vietnam issue, the various maritime boundary disputes, etc., all have triggered conflicts of words and military at various stages. Oil and Gas have become so important for this world that the extinction of it would lead to a situation of crisis hard to manage.

As the State endeavors to go deeper and deeper, the possibility of disputes and issues increases. Increase in depth also leads to an increase in the distance from the coast leading to various issues like boundary disputes, environmental pollution and the worst of all, governance of the “High Seas”.

Geopolitical issues related to maritime boundary disputes have put this industry at such a stand that a military conflict is not hard to imagine. The worst part about this entire scenario is that despite the increasing number of maritime boundary disputes,

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<sup>20</sup> China and Vietnam maritime boundary dispute in the South China Sea

<sup>21</sup> Sheikh Zaki Yamani

the global community has not taken any step to resolve the same and even if an initiative was taken, the result has been of the poorest quality.

Environmental pollution caused due to offshore oil and gas exploitation has been regulated upto a certain extent but the regulations are not exhaustive. There are still many lacunae which makes it very easy for a State to shun its responsibility in case of maritime pollution.

With the exploration of the "High Seas" being the new, shiny idea, the proper governance of the same continues to be the center of many debates. What happens in case of the exploitation of the "High Seas"? Who will govern the "High Seas"? In case of dispute, who will have the ultimate right to exploit a region in the "High Seas"? UNCLOS has made an attempt to answer this question by giving the exclusive power to deal with "the Area", the area beyond the claimable level of the continental shelf, which is considered as the common heritage on mankind, to the International Seabed Authority (ISA), but the rules with respect to the same are not very clear. By giving the exclusive right over "the Area" to the ISA, it becomes more of a discretionary method of selecting the party who will have the right to exploit a particular region in "the Area". With developed countries dominating each and every public platform at the international level, it becomes very difficult to expect a rational decision by the concerned Authorities. Further, considering the importance given to oil even at the political platform, one decision of the ISA to give a piece of "the Area" to a particular country can trigger a military conflict in no time. What happens in a situation like this? With more and more questions being added to this debate, the need of the hour to address these issues and formulate a strong substantive law that solves each and every problem.