

*Safety in Offshore Drilling:  
From the Gulf of Mexico  
accident to the Directive  
2013/30/EU.*

*The economic dimension of  
integration*

Efthymios Antonopoulos

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## Abstract

The purpose of this dissertation is to examine from a legal, economic, social and environmental point of view the impact of the *Deepwater Horizon* accident on the international plane, at the regional, and more specifically the European Union level, as well as who is considered liable and who is bound to pay compensation to the victims affected. A major part of human meddling with the marine ecosystem is identified with the exploitation of natural resources through oil and gas drilling activities, calling for the establishment of safety standards in the field of offshore activities through effective arrangements and policy harmonization. It is of utmost importance to consider that transboundary pollution resulting from offshore operations can pose a threat both to the responsible coastal State and to any neighbors. This thesis discusses the need for a sustainable policy that would promote the coexistence and interrelationship between man and the natural environment as the current regime in offshore activities is not characterized by universalism and does not guarantee adequate safety and safeguarding of the marine environment. After understanding the function of the regime and which its deficits are, this dissertation examines the international framework of offshore activities and focuses on Directive 2013/30/EU. Another query delves into the connection between economic development and the struggle for a new bargain that would favor political integration inside the European Union. What is portrayed at the end, is the need for consent to an effective, either international or regional, agreement to ensure safety in offshore drilling since certain barriers are set due to the absence of a global binding agreement as well as the gaps of the existing regulations. Economic development and policy-making should embrace the reign of renewable energy sources to respect marine environmental protection and achieve sustainability.

## Key words

*Safety, marine environment, offshore drilling, offshore installations, international law, Directive 2013/30/EU, Energy Union*

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## ABBREVIATIONS

BAT	Best Available Techniques
CLC	Civil Liability Convention
CLEE	Convention on Civil Liability for Oil Pollution Damage from Exploration and Exploitation of Sea Bed Mineral Resources
EEZ	Exclusive Economic Zone
EU	European Union
EUOAG	European Union Offshore Authorities Group
EMSA	European Maritime Safety Agency
EP	European Parliament
FAO	Food and Agriculture Organisation
GCTS	Geneva Convention on the Territorial Sea
GESAMP	Group of Experts on the Scientific Aspects of Marine Pollution
HEL.COM	Helsinki Commission
IAEA	International Atomic Energy Agency
IMCO	Intergovernmental Maritime Consultative Organisation
IMO	International Maritime Organisation
MAP	Mediterranean Action Plan
MARPOL	International Convention for the Prevention of Pollution from Ships
MODUs	Mobile Offshore Drilling Units
NATO	North Atlantic Treaty Organisation
OCSLA	Outer Continental Shelf Lands Act
OILPOL	Oil Pollution Convention
OPRC	International Convention on Oil Pollution Preparedness, Response and Co-operation
OSPAR	Oslo-Paris Convention
SPAs	Specially Protected Areas

TOVALOP Tanker Owners Voluntary Agreement concerning Liability for Oil  
Pollution

UN United Nations

UNCLOS United Nations Convention on the Law of the Sea

UNEP United Nations Environment Programme

UNESCO United Nations Educational Scientific and Cultural Organisation

US United States

WHO World Health Organisation

WMO World Meteorological Organisation

## INTRODUCTION

The sea, as the ensemble of saltwater being surrounded partially or completely by land, covers a huge part of our globe and is significant for the ecosystems' living and the evolution and survival of human beings. The majority of natural lifecycles, marine living organisms, and human activity which is related to navigation, exploration of the seabed and its subsoil thereof, commercial trade, recreation, tourism and fisheries form part and parcel of the interaction and interconnectedness between man and the marine environment. A major part of human meddling with the marine ecosystem is identified with the exploitation of natural resources through oil and gas drilling activities, calling for the establishment of safety standards in the field of offshore activities through effective arrangements and policy harmonization.

It is true that the sea wholeheartedly offers a range of benefits, but the sustainable exploitation that caters for its sensitivities and vulnerabilities constitutes the basic tool for the confrontation of marine pollution. Pollution is basically caused from land-based sources<sup>1</sup>, navigation, dumping of waste and offshore activities. Even if the latter form of pollution is responsible only for the 1% of marine pollution there are some cases where exploration and production activities take place and, thus, they increase the percentage of the probable environmental pollution<sup>2</sup>. The pollutants have a negative impact on biodiversity, human activity and subsequently influence the tourism sector and the economic growth of the affected regions. As it has been aptly declares by Jacques Yves Cousteau, in 1971, the sea is “where all kinds of pollution wind up”<sup>3</sup>, offering food for thought for researchers in the field of marine pollution and environmental policy. Additionally, it is of utmost importance to consider that transboundary pollution resulting from offshore operations can pose a threat both to the responsible coastal State and to any neighbors as water-and pollutants- circulate through streams and strong tides.

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<sup>1</sup> It has been stated that pollution from land-based sources reaches 80% of the total sum. UN General Assembly, Oceans and the Law of the Sea, Report of the Secretary-General of 18 August 2004, A/59/62/Add. 1, 29, para. 97.

<sup>2</sup> Sands, P. (2004), *Principles of International Environmental Law*, 2<sup>nd</sup> edition, Cambridge: Cambridge University Press, pp.: 445.

<sup>3</sup> *Oxford Essential Quotations* (2012), S. Ratcliffe (ed.), Oxford: Oxford University Press. This quote derives from a hearing of the U.S. House Committee on Science and Astronautics (28.01.1971), and presents the sea as the global sewers where all pollutants intertwine.



What we thoroughly need, is a sustainable policy that would promote the coexistence and interrelationship between man and the natural environment. Incidents like the accidental oil discharges from offshore installations in the North Sea (1977) and Mexico (1979) or catastrophic accidents like the *Torrey Canyon* (1967), *Exxon Valdez* (1989), *Erika* (1999), *Prestige* (2002) and the recent *Deepwater Horizon* (2010), a motive for the compilation of this dissertation, present the dreary spots in the field of marine environmental protection and have impelled the international community to strive for responses.

The footage of the catastrophe in the Gulf of Mexico with the loads of oil spilled, the coated mammals and the soiled beaches pushed me towards the desire to understand how the regime is formed and which its deficits are. To deepen my research, I decided to explore the international framework of offshore activities in the light of environmental protection. The purpose of this dissertation is to examine from a legal, economic, social and environmental point of view the impact of the *Deepwater Horizon* incident on the international plane, at the regional, and more specifically the EU level, as well as who is considered liable and who is bound to pay compensation to the victims affected by such accidents. Another query delves into the connection between economic development and the need for a new bargain that would favor political integration inside the EU (European Union).

There might be a wide range of global, regional and sectoral legal documents, but the international legal framework of environmental agreements in the field of offshore activities is still fragmented and decentralized<sup>4</sup>, with a diversity of regulations as the international community refuses and fails to establish a legally binding regulatory regime that would lead to the fight against the sources of pollution and the road to sustainable development through equable and effective institutional mechanisms. According to the United Nations Secretary General, access to energy is an inalienable human right to fight poverty<sup>5</sup>. However, the current regime in offshore activities is not characterized by universalism and does not guarantee adequate safety and respect to marine environment. The Gulf of Mexico incident (2010), with the explosion and the

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<sup>4</sup>Gavouneli, M., "Offshore Installations: A Comprehensive regime?", *MEPIELAN eBulletin*, 04 April 2013, Web, Read on 28 April 2015.

<sup>5</sup> UN, Report of the UN Conference on Sustainable Development, Rio de Janeiro, 20-22 June 2012, UN Doc. A/CONF.216/16, para. 129.

huge oil spill opened up a new series of debates and has depicted the insufficiency and inability of the U.S. institutions to deal with the environmental and economic disaster as well as the incapacity of the industry to effectively respond to the catastrophe. Accidents have the propensity to foster the amendments of laws and the examination of a regime's effectiveness. Therefore, the abovementioned facts turned the attention of environmentalists, policy-makers, and researchers on the Mediterranean Offshore Protocol (1994) that addresses specific aspects of environmental conservation being also a complement to the Barcelona Convention (1976/1995), and to the 2013/30/EU Directive on safety of offshore oil and gas operations.

To avoid the triumph of the *risk society*<sup>6</sup> that follows the preponderance of unsustainable and lavish consumption patterns in times of modernity and confusion in the ideological, political and economic system<sup>7</sup>, it becomes evident that the adoption of effective agreements for the protection of the oceans and seas and the ratification of the current regimes would be a great step in order to achieve the adequate level of prevention, preparedness and response and the key in assigning liability. This research paper seeks to examine the regime of offshore drilling, focusing mainly on the concept of substantial compliance, the effect of regulations in combating the problem, and the ability of national governments in implementing international pacts.

To this end, the different aspects of safety in offshore drilling as well as the nature and features of the drilling industry are presented and discussed. Thereafter, it is pondered how the offshore installations are defined and regulated by public international law, with the aim to analyze in detail the existing legal framework in international and EU level. By doing this I will extract the flaws and omissions of the regime and I will demonstrate how environmental policy and planning can be proactive, rather than reactive, and preventive when the consequences of certain decisions tie with environmental and economic dimensions. To achieve a shift in the production systems and a new deal for a sustainable future, modernity lifestyle and

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<sup>6</sup> Beck, U. (1992), *The Risk Society: Towards a New Modernity*, Newbury Park, CA: Sage.

<sup>7</sup> Jacques, P. (2011), "Marine Pollution", in Kütting, G. *Global Environmental Politics, Concepts, Theories and Case Studies*, New York: Routledge, pp.: 123.

economic development should keep up with the reign of renewable energy sources<sup>8</sup> and, thus, adapt to ecological demands that oppose untenable economic production.

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<sup>8</sup>Glewwe, T. (2014), “Nuclear Power Gateway to a Sustainable Energy Sector”. *Op-Eds from ENSC230 Energy and the Environment: Economics and Policies*. Paper 50.  
<http://digitalcommons.unl.edu/ageconugensc/50/>

## CHAPTER 1-The features of offshore drilling

To display my arguments, it is useful to firstly depict the nature of the offshore oil industry departing from the U.S., as an evolving economic actor that from shallow waters moved into deepwater and, recently, in ultra-deep water in order to respond to the global call for energy and the desire to reap the riches of the sea while hunting and detecting the affluence of minerals sheltering under and in the water<sup>9</sup>. This remarkable shift is associated with technological advancements in the field of rigs' design and construction to minimize threats and environmental impacts.

### 1.1. The historical evolution of the offshore industry

Offshore industry started to develop in shallow waters. In 1896, south of Santa Barbara, drilling began in the Pacific Ocean but the well's production and 'fertile' years lasted till the beginning of the 20<sup>th</sup> century. The shutdown of the site was linked with soiled shores and abandoned material and debris. In October 1947, the first commercial offshore oil well drilled by a mobile rig off southeastern Louisiana, in depth of only 18 feet, marked an important event for the offshore industry and the exploration and extraction of crude oil and natural gas. This step showed that oil companies felt more comfortable and, thus, decided to move a step forward by setting small mobile platforms to the newly drilled sites<sup>10</sup>.

The end of World War II marks a significant event and turns oil into a crucial element of power and dynamism as U.S. President, Harry Truman, issued two declarations, asserting federal jurisdiction over the entire continental shelf<sup>11</sup>. The first proclamation referred to the right of coastal states to minerals on the continental shelf, which should be regarded as an extension of land mass, and he stated that “...*the Government of the United States regards the natural resources of the subsoil and the seabed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control.*”<sup>12</sup> Moreover, this argument was confirmed by the International Court of Justice (ICJ) in its judgment on the *North Sea Continental Shelf Cases*, wherein the Court declared

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<sup>9</sup>Gavouneli, M. (1995), *Pollution from Offshore Installations*, in International Environmental Law and Policy Series, London: Graham & Trotman, doctoral thesis Cambridge University, pp.: 1.

<sup>10</sup> Priest, T. (2007), *The Offshore Imperative: Shell Oil's Search for Petroleum in Postwar America*, Texas: A&M Press, pp.:34.

<sup>11</sup>Kütting, above no. 7, pp.: 122.

<sup>12</sup> U.S. Presidential Proclamation No 2667, Policy of the United States with Respect to the Natural Resources of the Subsoil and the Seabed of the Continental Shelf, done at Washington on 28 September 1945.

that the rights of the coastal state concerning the continental shelf are linked to the prolongation of its territory under the sea existed *ipso facto* and *ab initio*<sup>13</sup>. The second one advocated for national control over fisheries adjacent to territorial zones out to 200 nautical miles. At this point we can also assume that technological evolution set a roadmap for diplomatic deliberations and economic development, since those proclamations triggered off a series of similar unilateral statements and a reaction on the part of the international community, in 1958, when we had the first conference of the Law of the Sea with the prime aim the codification of *mare liberum*<sup>14</sup>.

As D. Eisenhower came to power, the passage of the Outer Continental Shelf Lands Act (OCSLA), in 1953, offered to the federal government the authority to issue leases in coastal regions beyond state jurisdiction, creating the so-called outer continental shelf area. The leasing permitted the use of totally new technology to combat rough waters, and the appearance of the first floating drilling rig in the battle to produce hydrocarbons. When offshore operators decided to move into deeper waters, in depth of 98 feet, fixed platforms were designed, and when they reached the depth of 120 feet jack-up rigs appeared. This practice was really common during the oil crisis in 1973-4 in places like Alaska, Australia, Brazil, New Zealand, Indonesia and Zaire<sup>15</sup>. Currently, offshore oil production gains even more power and the offshore oil fields are increasing in rapid terms. Offshore oil installations are operating in the Mediterranean region, and notable sites are situated, among others, in the Gulf of Mexico, the Persian Gulf, off West Africa, the Caspian Sea, and the North Sea. A map depicting the allocation of offshore installations in Europe can be read in Annex I to this dissertation.

## 1.2. Types of offshore oil rigs

Offshore oil rigs are characterized by a great variety of uses and a range of categories to be classified in. Oil rigs or Mobile Offshore Drilling Units (MODUs) can appear

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<sup>13</sup>*North Sea Continental Shelf Judgment*, 1969, ICJ Reports, pp.: 3.

<sup>14</sup> The United Nations Convention on the Law of the Sea (UNCLOS) is the outcome of the third conference on the Law of the Sea which began in 1973, ended in 1982 and entered into force in 1994. The Convention sets a 12 nautical mile territorial sea where states retain sovereign rights, and a 200 nautical mile exclusive economic zone. In the first conference of 1958, states codified *mare liberum* and other rights (e.g. the right to fish), whereas the second international conference, in 1960, ended up with the failure of no agreement at all because there was a huge dispute on the way to set jurisdictions for coastal states. Finally, the nautical mile is equivalent to 1,852 meters.

<sup>15</sup>Esmaili, H. (2001), *The Legal Regime of Offshore Oil Rigs in International Law*, Aldershot: Ashgate Dartmouth, pp. 11.

either as structures heading to the seabed for a drilling operation or as drill ships. The categorization according to the operational mode is really important and can lead to the application of a different legal regime<sup>16</sup>, a debate which will be presented in Chapter 2 to this dissertation.

The drilling industry is a highly competitive market aiming to profit that depends not only from the region of the conducted activities but also from the type of rig chosen to fulfill the investment craving. To be more precise, offshore oil rigs attain the categories of mobile units and fixed platforms<sup>17</sup>, where the former are considered as floating and bottom supported and the latter share similar characteristics to land-based structures. Under the umbrella of the floating constructions we have the drill ships and the semi-submersibles<sup>18</sup> which are common in deepwater operations and battle strong tides, storms and tropical weather conditions while floating above the well. The most common type of oil rigs are the jack-up drills which are bottom supported. An image of the offshore oil rigs is attached to Annex II to this dissertation.

### 1.3. Security threats, environmental and economic impact

For the direct and sufficient protection and safeguarding of the marine environment and its ecosystem, and the drive for sustainable economic development that would accommodate the diverse economic and investment interests, offshore development should be shielded from numerous security threats that may provoke major environmental and social risks. Maritime security is set as an important factor for economic growth, as maritime interests are connected to prosperity of the population and development of the nation and, thus, states aim at achieving a security levels that would respond to threats deriving from intentional and unlawful damage to the marine environment in order to settle a framework of resource security and environmental protection establishing a climate of socio-economic development<sup>19</sup>. It is true that that to sustain and support the coupling of growth and environmental protection, there are certain steps to be taken because prevention and preparedness are far better than response and cure, especially where there is a convergence of neighboring waters,

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<sup>16</sup> De la Rue, C. (1993), *Liability for Damage to the Marine Environment*, London: Lloyd's of London Press, pp.:207.

<sup>17</sup>Esmaeili, above no. 15, pp.: 12, 16.

<sup>18</sup> The *Deepwater Horizon* was a semi-submersible oil rig designed to show strength in the harsh environment of the Gulf of Mexico.

<sup>19</sup>Parisis, I. (2015), *The Maritime Dimension of European Security: Strategies, Initiatives, Synergies, The Fletcher School-The Constantine Karamanlis Chair*, pp.: 12.

regional vulnerabilities and local particularities that hamper the settlement of the issue posed<sup>20</sup>.

In our days, political turmoil, social injustice, the rise of extremism and the allocation of offshore sites close to unstable and war zones, pose risks to the safety of installations and thus stability and protection of the marine ecosystem are threatened. Such offshore security threats vary from unlawful interference to violent acts against the installation as such, and pose environmental and security risks<sup>21</sup>, which may affect the political economy of both the coastal state and the world industry. Policy-makers, officials and experts in the field of marine policy and planning should take into account terrorist attacks, piracy, insurgency, civil protests from groups of environmental activists, striking workers or anti-government protesters that may lead to vandalism and loss of the company's assets, the subsequent internal sabotage from dissatisfied workers, inter-state conflicts and hostilities that initiate heated debates on the maritime borders and state jurisdiction<sup>22</sup>. In general, the targeting of energy installations is regulated by the international law of the *jus in bello*, specifically by the 1949 Geneva Conventions and their 1977 additional Protocols<sup>23</sup>. Great importance from international law is given to piracy, which is thought as a crime according to public international law, upon which any state may exercise jurisdiction; meaning that the exclusivity of the flag state be confined and as a result the prosecution of the pirates falls under the laws of the domestic state<sup>24</sup>. The nature and the features of the aforementioned threats set a nexus and lay difficulties in the battle against the perilous risks due to the convergence and interconnectedness among the different but

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<sup>20</sup> Hardy, M. (1973), "Offshore Development and Marine Pollution", *Ocean Development and International Law*, Vol. 1, No. 3, pp.: 240.

<sup>21</sup> Kashubsky, M. (2013), "Protecting Offshore Oil and Gas Installations: Security Threats and Countervailing Measures", pp.: 2.

<sup>22</sup> An example of inter-state hostility and state terrorism can be considered the 1983 attack by Iraqi planes against the Iranian offshore site at the Nowruz well, as a scene of the Gulf War (1980-88) between Iran and Iraq.

Kashubsky, above no. 20, pp.: 4.

<sup>23</sup> Geneva Conventions, 1949 and Additional Protocols, 1977. Article 56 to the First Additional Protocol refers to the protection of works and installations containing dangerous forces such as "*dams, dykes and nuclear electrical generating stations*" which should be attacked because the release of substances may cause losses among the civilian population.

<sup>24</sup> Roggenkamp, M., Redgwell, C., Del Guayo, I., and Anita Rønne (eds.) (2007), *Energy Law in Europe: National, EU and International Regulation*, 2nd edition, Oxford: Oxford University Press, pp.: 107. The above analysis is based on the interpretation of the United Nations Convention on the Law of the Sea (UNCLOS), 1982, Articles 101 and 105.

overlapping categories of menaces<sup>25</sup>. The multiplicity of motives and the sense of afflicted injustice restrains the perpetrators of such illicit and nefarious moves from realizing their detrimental and injurious consequences not only to the marine environment but also to the present and future generations which are asked to survive in it. Having this in mind, companies should strive for the adoption of effective security measures to enhance energy security at sea.

On the aftermath of the 9/11 attack, there has been a call for the improvement and effective operation of the security system as far as offshore installations and development is concerned, as many countries which lean their economic growth on the smooth operation of offshore oil and gas fields felt that the rigs, as possible targets, might be the stage of illegitimate acts; something which would provoke irreparable damages to the serene and continuous exploitation and flow of natural resources and would also affect the ecosystem under their state jurisdiction. The promotion of a safety culture in the offshore industry, as the product of quality methods, values, attitudes, behavioral norms, competencies, and perceptions that guarantee the commitment to health and safety standards and understand the risks and dangers and what constitutes the unsafe conditions<sup>26</sup>. Therefore for a safety culture to be established and strengthened, beliefs related to safety should be projected, preventive schemes as a national solution that shields from transboundary harms, and emergency response plans must be issued in order to assure the safety of installations; and after being tested for their effectiveness, to be incorporated in legal documents that would cater for the guardianship and preservation of the marine environment. Robust leadership, adequately trained personnel and a system of disciplines might reinvent the industry and minimize the potential of an accident. On the whole, experts

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<sup>25</sup> The study of Hans Timo Hansen on the 'four circles model' depicts the interaction between vandalism and civil protest with terrorism and insurgency, a link which can be read by decomposing the profile of the main actors of those categories and, then, combine it with their call either for justice (as they perceive it) or overthrow of the status quo. Similarly, interstate hostilities are related to terrorism, while internal sabotage shares similar characteristics with any of the possible security threats. The cited figure can be found on Annex III to this dissertation.

Hansen, H. (2009), "Distinctions in the Finer Shades of Gray: The 'Four Circles Model' for Maritime Security Threat Assessment" in *Lloyd's MIU Handbook of Maritime Security*, eds. Rupert Herbert-Burns et al., Florida: Taylor&Francis, pp.: 74-78

<sup>26</sup> Attention should be paid to the studies of Cox, S.J., Cheyne, A.T.J. (2000), "Assessing safety culture in offshore environments", *Safety Science*, Vol. 34, pp.: 111-129, and Mearns, K., Flin, R., Gordon, R. and Fleming, M. (1998), "Measuring safety climate on offshore installations", *Work & Stress: An International Journal of Work, Health & Organisations*, Vol. 12, No. 3, pp.: 238-254, as well as to a report ACSNI (1993), *Organising for Safety-Third Report of the Human Factors Study Group of ACSNI*, London: HMSO.



in the field and representatives of the industry are asked to focus on the precautionary aspect of any proposed measure to guarantee national and international protection, and strive for preventative initiatives in the field of environmental management that may lead to mild but long-lasting economic benefits<sup>27</sup>.

However, not only the abovementioned security threats are thoroughly linked to the matter of marine pollution, but there are other multiple sources responsible for the degradation of the aquaculture and the ecosystem. To analyze it further, except for the threats endangering the environment and the installations, crucial parameters in the examination and evaluation of the regime applying to the safety in offshore drilling are the main sources of marine pollution. The accidents and the extended and burgeoning human activity reveal the constant danger of marine pollution, like a shadow jeopardizing the ecosystem of a whole region. To launch a discussion referring to marine pollution we definition of the concept should be reproduced, in order to show that marine pollution is not only a physical and biological process, but rather it is presented as “*the introduction by man, directly or indirectly, of substances or energy into the marine environment resulting in such deleterious effects as harm to living resources, hazard to human health, hindrance to marine activities...impairment of quality for use of sea water and reduction of amenities*”<sup>28</sup>. Therefore, the mishmash of aspects involved may impinge upon the nature of legislations to be passed and the allocation of responsibility after damage.

In the light of environmental protection, offshore oil and gas activities are viewed as a dangerous procedure<sup>29</sup> taking place at areas subject to national jurisdiction and/or beyond. Adding to this and emanating from the general principles of international law, states are asked to pay a ‘reasonable regard’ especially to their neighbors as the

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<sup>27</sup> Jackson, T. and Taylor, P.J. (1992), “The Precautionary Principle and the Prevention of Marine Pollution”, *Chemistry and Ecology*, Vol. 7, No. 1-4, pp.: 123-134.

<sup>28</sup> Definition adopted by the Inter-governmental Oceanographic Commission (based on a definition originally prepared by a SCOR/ACMRR Working Group) and accepted by the Joint IMCO/FAO/UNESCO/WMO/WHO/IAEA/UN Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP). See Doc. A/7750, Part I, 3. 10 November 1969, and GESAMPI/II, para. 12. See also Principle 7 of the Declaration of the United Nations Conference on the Human Environment, Stockholm 1972.

<sup>29</sup> Gao, Z. (1994), “International Petroleum Exploration and Exploitation Agreements: A Comprehensive Environmental Appraisal”, *Journal of Energy and Natural Resources*, Vol. 12, No. 240, pp.: 240-253.

activities occurring in one state may affect another, a reasoning close to the *sic utere tuo ut alienum non laedas* maxim which will be analyzed further below<sup>30</sup>.

Marine pollution may result from exploration activities for the discovery and drilling of natural resources and the related processes<sup>31</sup>, disturbance of the ecosystem due to the existence of abandoned and disused offshore platforms, accidental discharges after an explosion or a leakage<sup>32</sup>, operational discharges of waste<sup>33</sup>, intentional discharges which are not common since they imply loss of profit on the part of the companies, ruptured pipelines and collision of ships to installations<sup>34</sup>. The environmental impacts are synonymous to a ruined ecosystem, a death toll of killed mammals, soiled beaches, contaminated plankton, and barriers to the trip of migratory species, whereas other species might consume contaminated organisms allowing spilled oil enter the lifecycle. Damage to the environment can threaten maritime security leading to loss of marine habitats and species, decreased biodiversity rate, coral bleaching, parameters that affect social and economic interests of the coastal states and may provoke internal conflicts, migration waves, poverty, declining economic productivity and poor governance<sup>35</sup>. Catastrophe is unpredictable and depends on the size of the spill, the closeness of the installation to the shoreline and the vulnerability of the ecosystem, thus elevating treatment as the key to recovery. Notwithstanding the diffusion of the dangers, prevention applicable to offshore structures and activities that would inaugurate a framework of safety in the industry is still immature and the interest of expert bodies scattered and incomplete<sup>36</sup>. This attitude should be changed immediately because, as we have observed, an offshore accident implies a huge amount of pollutants and also sea bed activities are always intensifying, a phenomenon seeking for the adoption of efficient national and international

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<sup>30</sup> Hardy, above no. 19, pp.: 246.

<sup>31</sup> They include, among other, seismic surveys, oil drilling activities, accidental leakage in the sea bed from ruptured pipelines, dumping of waste.

<sup>32</sup> Brubaker, D. (1993), *Marine Pollution and International Law: Principles and Practice*, London: Belhaven Press, pp.: 38-41.

<sup>33</sup> In this category we may include the disposal of oily water, and muds, and the dissolution of chemicals that are used in order to prevent marine organisms from attaching themselves to surface of platforms.

<sup>34</sup> Roggenkamp, M., Redgwell, C., Del Guayo, I., and Anita Rønne eds., above no. 24, pp.: 67-68.

<sup>35</sup> Parisi, above no. 19, pp.: 23-24. An interesting study has been conducted by the North Atlantic Treaty Organisation and speaks about the interrelated concepts of environment and security, North Atlantic Treaty Organisation (2005), *The Environment and Security*, available at <http://www.nato.int>.

<sup>36</sup> This is due to the fact that offshore activities are not related to the other causes of marine pollution (land-based sources, navigation, dumping), and hydrocarbons are responsible for about 1% of the total marine pollution. For more see, Gao, above no26, pp.: 240-241.

regulations and the support by robust public authorities with the courage and the political will to implement and report on the enforcement of the rules.

In the following chapter the discussion will move towards the portrait of offshore installations at international law, a prerequisite to advocate upon the legal developments in offshore activities, later on.

## CHAPTER 2-Offshore installations at Public International Law

### 2.1. The status of offshore installations

As it has been previously stated, it remains a tough effort to classify offshore installations, as most of them share both mobile and fixed features. Therefore, offshore installations form an autonomous category in international law, which is determined by state practice<sup>37</sup>, a vague concept in global level that calls for a reform and the advancement of regulations. Generally, the status of offshore installations is rather complex because they neither fall under the category of an island because they are not permanent and they do not have their own natural territory or land<sup>38</sup> nor they are thought as ships since the definition of a ship in international law is problematic and not widely accepted and the conflict concerning the jurisdiction and control of either the flag state or the coastal state is strong. International conventions, such as MARPOL and the OPRC Convention adopt different definitions of ships in order to include or exclude offshore installations<sup>39</sup>.

The structures are either fixed on the seabed, mobile or floating craft<sup>40</sup>. Their characteristics have hindered harmonization of standards and the acceptance of an international corpus of rules that would regulate offshore installations and would establish a widely encompassing definition, and as a result states have retained their power and they focus on the practical classification of installations as subjects to coastal state regulations when fixed to or submerged on the seabed, and when they are mobile they turn back to the status of ships<sup>41</sup>. There is a sole doubt concerning their categorization as ships when they perform only drilling activities. To conclude, it is true that the rules pertaining to the status of offshore installations may sound blended

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<sup>37</sup>Brown, Ch. (1998), "International Environmental Law in the Regulation of Offshore Installations and Seabed Activities: The case for a South Pacific Regional Protocol", *AMPLJ*, Vol. 17, pp.: 112-113.

<sup>38</sup>United Nations Convention on the Law of the Sea (UNCLOS), 1982, Art. 60 (8). It is only stated that states can claim safety zones of 500 nautical miles for the protection of the installations. However, the 500 miles limit is deemed too narrow for accurate and effective protection. Relevant to the issue of security zones is the IMO Resolution on "Safety Zones and Safety of Navigation Around Offshore Installations and Structures", IMO Doc. A. 671/16 (1989), *Safety Zones and Safety of Navigation Around Offshore Installations and Structures*, para. 2.

<sup>39</sup> The OPRC Convention offers a separate definition of ship (Article 2.3) and a different one for offshore unit (Article 2.4), thus, providing with distinct interpretations.

<sup>40</sup> It is very interesting to present the definition given in Article 1 of the CMI Rio Draft: "Craft shall mean any marine structure of whatever nature not permanently fixed into the seabed which a) is capable of moving or being moved whilst floating in or on water, whether or not attached to the seabed during operations, and b) is used or intended for use in the exploration, exploitation processing, transport or storage of the mineral resources of the seabed or its subsoil or in ancillary activities."

<sup>41</sup> Brown, above no. 32, pp.: 114.

and diverse, without clarity, lucidity and harmony, but it is believed that their flexibility can encourage reasonable and effective response<sup>42</sup>. However, international cooperation, with the aim of avoiding future offshore disasters, should develop a minimum set of standards in the industry, and other international legal regimes as well as national frameworks should display widely-accepted definitions of ‘artificial islands’, ‘ships’, and ‘offshore installations’, especially nowadays when offshore platforms are fervently used for exploitation of the natural resources.

The following section will analyze briefly the scope of coastal states’ area of authority and control over offshore installations.

## 2.2. Jurisdiction of coastal states over offshore installations

In the past, states exercised sovereignty to waters contiguous to their shores and confined by the high seas. Even if there were some attempts in 1930, 1958 and 1960 to codify and settle the extent of the territorial sea no consensus has been reached. According to the 1958 GCTS and UNCLOS every coastal state has a territorial sea<sup>43</sup>, and the baseline from which the scope of the territorial sea is measured is the coastal low-water line<sup>44</sup>. Article 2.1 of UNCLOS argues that states can claim sovereignty over their territorial sea, a power which may extend to the seabed and its subsoil thereof making the exploration and exploitation of natural resources a possible event<sup>45</sup>. The current set limit of the territorial sea touches upon and shall not exceed 12 nautical miles<sup>46</sup>, and it is a curb respected also by non-parties to the Convention like the United States of America<sup>47</sup>. However, sovereignty of the coastal state over the territorial sea may be restrained when the right of innocent on the part of foreign ships is applied<sup>48</sup>, while simultaneously the coastal state retains all the practical rights and duties inherent in sovereignty.

UNCLOS Articles 55 to 75 provide a detailed analysis of the support for the creation of the Exclusive Economic Zone (EEZ)<sup>49</sup>. More specifically, article 57 of UNCLOS

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<sup>42</sup>Gavouneli, above no. 9, pp.: 14-15.

<sup>43</sup>Geneva Convention on the Territorial Sea (GCTS), 1958, Art.21 and UNCLOS, Art. 2

<sup>44</sup> GCTS, Art. 3 and UNCLOS Art. 5.

<sup>45</sup> UNCLOS, Art. 2.2

<sup>46</sup> UNCLOS, Art. 3

<sup>47</sup> Presidential Proclamation No. 5928, 27 December 1988, 54 FR 777.

<sup>48</sup> UNCLOS, Art. 17.

<sup>49</sup> The EEZ is “*an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal state and the rights and*

advocates that the EEZ should not surpass a claim up to 200 nautical miles from the territorial sea baseline. However, the EEZ is not only associated with fisheries, as it covers the exploitation and management of resources allowing the coastal state to exercise sovereignty “*for the purpose of exploring and exploiting...the natural resources*”, while it allows the formulation and service of artificial islands, installations and structures<sup>50</sup>. Moreover, referring to rights-associated with economic purposes-applying to the seabed and the subsoil, the interested party should consult the regime of the continental shelf<sup>51</sup>, thus, solving the problem of overlapping regimes. Finally, the coastal state retains the exclusive right as far as construction, operation, and use of artificial islands, installations and structures is concerned; and the exclusive jurisdiction of the coastal state is confirmed<sup>52</sup>. A significant clarification to the abovementioned article (paragraph 8) involves the assumption artificial islands, installations and structures have no territorial sea of their own-except for a safety zone up to 500 nautical miles<sup>53</sup>- and do not affect the delimitation of the territorial sea, EEZ, or continental shelf.

The continental shelf area overlaps with the EEZ within 200 nautical miles but may extend further, but not beyond 350 nautical miles from the baselines measuring the breadth of the territorial sea<sup>54</sup>. The coastal state has the power to exercise sovereign rights for exploration and exploitation of the natural resources located in the continental shelf<sup>55</sup>, and also all states may lay pipelines on the continental shelf<sup>56</sup> whereas the coastal state retains the exclusiveness in authorizing and organizing drilling activities on the area<sup>57</sup>. Article 60 applies *mutatis mutandis* to article 80 and sets the right to authorize and regulate artificial islands, offshore installations and structures on the continental shelf. To conclude, we should not forget that the decisive step that shed light of state practice to the continental shelf was the Truman Proclamation of 1945, which was related to the mineral resources of the shelf and immediately after provoked numerous of claims by a variety of states. This statement

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*freedoms of other states are governed by the relevant provisions of this Convention.*”, UNCLOS, Art. 55.

<sup>50</sup> UNCLOS, Art. 56.1

<sup>51</sup> UNCLOS, Art. 56.3. The continental shelf regime is included in Part VI of the Convention.

<sup>52</sup> UNCLOS, Art. 60

<sup>53</sup> UNCLOS, Art. 60.5

<sup>54</sup> UNCLOS, Art. 76

<sup>55</sup> UNCLOS, Art. 77.1

<sup>56</sup> UNCLOS, Art 79

<sup>57</sup> UNCLOS, Art 81

*de lege ferenda* transformed into a norm of customary international law because the need to protect oil reserves was heightened<sup>58</sup>.

To recapitulate, since the EEZ and the continental shelf share some similarities and interpenetrate in the UNCLOS regime, a short comparison of their legal features might prove useful. The proclamation of an EEZ is deemed optional whereas there are inherent rights of the coastal state over the natural resources of the continental shelf. Additionally, as it is presented throughout UNCLOS, a coastal state is granted significant jurisdiction and control over pollution by ships<sup>59</sup>.

Further on, the readership will be provided with international environmental law principles that mark the obligation of states to prevent pollution from offshore sources and, thus, guarantee the protection of the marine environment. Mostly, regulation desires the facilitation of energy related activities and the mitigation of negative transboundary effects.

### 2.3. Sources of international environmental law

International environmental law, as a part of public international law, has been developed based on the sources of international law, presented by the International Court of Justice<sup>60</sup>. In the following pages these sources-more specifically, custom and convention, and ‘soft’ law guidelines- are examined in detail and through their environmental aspect in order for the main features of the regulatory framework of the offshore installations to be elaborated. Furthermore, since the categories of custom and general principles of law are usually blurring, these will be thought together.

To begin with, international law requires long-term practice and manifestation of *opinion juris* in order to equip standards with customary force. Customary international law and general principles of law establish their basis on the maxim *sic utere tuo ut alienum non laedas*<sup>61</sup> that does not allow a state to use and exploit its

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<sup>58</sup>Roggenkamp, M., Redgwell, C., Del Guayo, I., and Anita Rønne eds., above no. 24, pp.:55.

<sup>59</sup>Crawford, J. (2012), *Brownlie's Principles of Public International Law*, 8<sup>th</sup> edition, Oxford: Oxford University Press, pp.: 279.

<sup>60</sup>Statute of the International Court of Justice, Art. 38.1.

The sources of international law are international conventions, customary international law, general principles of law as recognized by ‘civil nations’, and judicial teachings of ‘the most highly qualified publicists of the various nations’.

<sup>61</sup>*Trail Smelter Arbitration (USA vs. Canada)*, 1941 (‘...state owes to at all times a duty to protect other states against injurious acts by individuals from within their jurisdiction’), (‘...no state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the

territory in a way that proves dangerous and risky for the territory of another state. This maxim has been also expressed in Stockholm Principle 21 (1972)<sup>62</sup> and as a customary rule calling for the adoption of preventive measures. Similar effects are shared with the principle of “good neighborliness”, as it is rendered in the Charter of the United Nations<sup>63</sup>. As a result, states are asked to take precautionary measures to alleviate any harm caused, and subsequently be claimed guilty for a wrongful act. The precautionary approach can embrace environmental risks and promote the sustainable use of resources, while it elevates global environmental concern<sup>64</sup>.

In the general principles of law, that may be appropriate and relevant to the protection of the marine environment, we should address doctrines such as the ‘custodianship’ of a state and the ‘abuse of rights’<sup>65</sup>. Others include the duty of states in cooperation for the mitigation of environmental risks and emergencies<sup>66</sup> through negotiations, consultations and information sharing, and the ‘polluter pays’ principle which is known from the liability regimes after pollution and consider this principle as a general principle of international environmental law<sup>67</sup>. The concept of intergenerational equity, which highlights concern and affection for the generations to come, may bind states-if it is found in a treaty body-even if it has not yet acquired a customary international law status<sup>68</sup>. Finally, the precautionary approach, which can

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*territory of another or the properties or persons therein, when the case id of serious consequence and the injury is established by clear and convincing evidence’)* and *Corfu Channel Case (UK vs. Albania)*, 1949, (‘...obligation not to allow knowingly its territory to be used for acts contrary to the rights of other states’).

<sup>62</sup> Stockholm Declaration of the United Nations Conference on the Human Environment, 1972, Principle 21, “States have, in accordance with the Charter of the United Nations and the principle of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their use of artificial islands, structures and installations in the EEZ, and that the coastal state’s jurisdiction over such installations is exclusive.”

<sup>63</sup> Charter of the United Nations, 1949, Ar. 74 “Members of the United Nations also agree that their policy in respect of the territories to which this Chapter applies, no less than in respect of their metropolitan areas, must be based on the *general principle of good-neighborliness*, due account being taken of the interests and well-being of the rest of the world, in social, economic, and commercial matters.”

<sup>64</sup> Birnie, P., Boyle, A., Redgwell, C. (2009), *International Law and the Environment*, 3<sup>rd</sup> edition, Oxford: Oxford University Press, pp.: 138.

<sup>65</sup> Gavouneli, above no. 9, pp.: 84-87.

<sup>66</sup> *Lake Lanoux Arbitration (France vs. Spain)*, 1957.

<sup>67</sup> A similar provision can be found in UNCLOS, Art. 235 and if you see the International Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention), 1972 and International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC Convention), 1990.

<sup>68</sup> It can be found on the United Nations Framework Convention on Climate Change, 1992, Article 4. For further analysis, a prominent study is Redgwell, C. (1998), *Intergenerational Equity and Environmental Protection*.



be read in parallel with the duty to prevent, reduce and control pollution for environmental protection<sup>69</sup>, is an emerging concept that reformulates already existing rules for the monitoring of environmental risks<sup>70</sup>. Therefore, the aforementioned duty and the precautionary approach complete Rio Principle 15 and highlight the necessity for cooperation in the diligent prevention and mitigation of foreseeable risks. To recapitulate, the ICJ has opined on the potential imperative character of the aforementioned concepts, norms and principles in the *Gabcikovo-Nagymaros Case*, as the aforementioned may tie environmental protection with economic development and the concept of sustainability<sup>71</sup>.

It is true that international environmental law is in a state of development and contains much of ‘soft’ law along with non-binding principles, intentions, and ambiguous norms. Firstly, we should present Agenda 21, which was redacted in the 1992 Rio Summit and includes a whole chapter on the protection of the oceans that proposes anticipatory and preventive measures such as the conduct of environmental impact assessments and the adoption of ‘clean methods’ to avoid the degradation of the marine environment. It should be noted that there is the possibility for Agenda 21 to acquire a binding and strong power as a customary norm through state practice, *opinion juris* and political will. In the same category, we rank Rio Principles 2, 18, 19<sup>72</sup> that may be perceived as general international law because of the consensus observed in the Rio negotiations, the codification on the part of the International Law Commission and the jurisprudence of international tribunals<sup>73</sup>. Other ‘soft’ law principles include the guidelines of the United Nations Environment Programme (UNEP) on good practices<sup>74</sup>, the International Maritime Organisation code of conduct<sup>75</sup> and the guidelines published by the World Bank Group on good

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<sup>69</sup> UNCLOS, Art. 194

<sup>70</sup>Freeston, D. and Hay, E. (eds.) (1996), *The Precautionary Principle and International Law: The Challenge of Implementation*, Kluwer Law International.

<sup>71</sup>*Case Concerning the Gabcikovo-Nagymaros Project (Hungary vs. Slovakia)*, 1997, ICJ Reports, para. 140.

<sup>72</sup> Rio Principle 2 presents that domestic activities should not cause any transboundary harm, Principle 18 refers to the notification in case of an emergency and Principle 19 speaks about prior notification and consultation in good faith among states before any activity is launched.

<sup>73</sup>Birnie, P., Boyle, A., Redgwell, C., above no. 64, pp.: 138.

<sup>74</sup> UNEP (1982), “Guidelines Concerning the Environment Related to Offshore Mining and Drilling within the Limits of National Jurisdiction”.

<sup>75</sup> IMO (1989), “Code for the Construction and Equipment of Mobile Offshore Drilling Units”. The IMO Code may transcend into customary international law through state practice or be the basis for domestic legislation.

international industry practice<sup>76</sup> which address drilling activities, production of oil, pipelines and decommissioning.

#### 2.4. The international legal framework for accidental oil pollution prevention and emergency response

The study of international law provisions is deemed important due to the lack of a universal agreement to regulate the matter. UNCLOS encompasses all the principles of protection of the marine environment, the definition of marine pollution<sup>77</sup>, and dedicates Part XII<sup>78</sup> to issues related to the protection of the marine environment. It sets the rights and responsibilities of states while they use the oceans and seas and covers the omission. Even if it is an ecofriendly document, UNCLOS, should be considered as a guide that portrays the general principles and offers the opportunity for additional initiatives in various fields, like that of the safety in offshore activities. The sole clear reference to offshore drilling is found in Article 81, where it is stated that “*the coastal State shall have the exclusive right to authorize and regulate drilling on the continental shelf for all purposes*”, assigning the responsibility for the development of regulations at the national level. Therefore, states are obliged to conserve the marine environment as well as to exploit its natural resources<sup>79</sup>. This general provision can be either implemented through the passing of detailed and effective national rules or after cooperation with neighboring states since pollution can have transboundary impacts. Article 194 speaks about prevention, mitigation, and control, and specifically sub-clause 3.c, touches upon the prevention of accidents and the dealing with emergencies, provisions linked to those addressing cooperation in emergency cases and notification of other states<sup>80</sup>, since the confrontation and the mitigation of pollution resulting from inter-state cooperation is thought as a desirable step forward<sup>81</sup>. The provisions focusing on regulations for the prevention and monitoring of pollution from activities on the seabed, depict that states should adopt “*other measures*” which should not be “*less effective than international rules*”, and

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<sup>76</sup> World Bank Group (2007), “Environmental, Health, and Safety Guidelines for Offshore Oil and Gas Development”

<sup>77</sup>UNCLOS, 1982, Art. 1.1.4.

<sup>78</sup>UNCLOS, 1982, Art. 192-237. It has to be noted that the significance given to marine pollution emerges from the fact that Part XII comes as the second in terms of quantity, after Part XI which refers to the Area.

<sup>79</sup>UNCLOS, 1982, Art. 192-193.

<sup>80</sup>UNCLOS, 1982, Art. 198-199.

<sup>81</sup>Vinogradov, S. (2013), “The Impact of Deepwater Horizon: The Evolving International Legal Regime for Offshore Accidental Pollution, Prevention, Preparedness, and Response”, *Ocean Development and International Law*, Vol.44, No. 4, pp.: 335-362.

would be applicable to offshore installations<sup>82</sup>. Worth-mentioning is the stimulus for harmonization of “*global and regional rules, standards and recommended practices and procedures*”<sup>83</sup>, establishing regionalism as an effective solution. This provision sets interplay with the economic sector as well<sup>84</sup>. Finally, on the issue of liability, UNCLOS provides with general rules<sup>85</sup>. Therefore, UNCLOS provides with non-specific provisions that fail their purpose.

Another meaningful legal ‘hard’ law document is MARPOL, following the path of the 1954 OILPOL<sup>86</sup> the first international treaty dealing with oil pollution. MARPOL defines as ships “*hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms*”<sup>87</sup>. However, it fails to incorporate discharges related to exploration, exploitation and relevant activities. The aforementioned provisions, even if they refer to vessels apply also to installations, and appear in Annexes I, II and VII<sup>88</sup>. At any rate, the dispute concerning the classification of installations either as ships or artificial islands, hamper the applicability of MARPOL.

Another instrument that came as a response to *Exxon Valdez* accident (1989) was the OPRC, the preamble of which addresses the threat of pollution from offshore units<sup>89</sup>, makes contracting parties respond to the threats and demand from the operators the submission of contingency plans, which will be later approved by competent national authorities<sup>90</sup>. The objective of the Convention is to strengthen international cooperation and ameliorate national, regional and global capabilities<sup>91</sup>. However, the

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<sup>82</sup>UNCLOS, 1982, Art.208, 214. Those articles address operational and accidental pollution from offshore activities.

<sup>83</sup>UNCLOS, 1982, Art. 208 (5).

<sup>84</sup>Trevisanut, S. “*Foreign Investments in the Offshore Energy Industry: Investment Protection v. Energy Security v. Protection of the Marine Environment*”, pp.: 6. Available online at <http://ssrn.com/abstract=2340995>

<sup>85</sup>UNCLOS, 1982, Art. 235.

<sup>86</sup>International Convention for the Prevention of Pollution of the Sea by Oil, 1954.

<sup>87</sup>International Convention for the Prevention of Pollution by Ships (MARPOL), 1973/1978, Art. 2 (4). The Convention was signed under the auspices of the International Maritime Organisation, and the 1978 Protocol has assimilated the Convention.

<sup>88</sup> More specifically, regulation 2 speaks about prevention of pollution from oil discharges and applies to all “ships”, regulation 14 refers to the equipment used in offshore installations, regulation 21 presents some requirements for offshore installations, and regulation 39 sets terms for fixed and floating platforms.

<sup>89</sup>International Convention on Oil Pollution, Preparedness, Response and Cooperation (OPRC), 1990, Preamble.

<sup>90</sup>OPRC, 1990, Art. 3.2.

<sup>91</sup>Vinogradov, above no. 81, pp.: 342.

discharges of waste resulting from offshore activities are not placed under the scope of the Convention<sup>92</sup>.

The discussion conducted above sketches the lack of cohesion and coherence among the provisions of legal documents, thus, setting barriers in the acceptance and establishment of a universal legal regime for offshore drilling platforms. The tendency of the international community towards regional arrangements has declared presence from the 1992 Baltic Convention. This document asks Baltic States to take necessary measures; it refers to the elimination of pollution from offshore installations and sources<sup>93</sup>, interdicts any reservations and founds the Helsinki Commission (HEL.COM). The Helsinki Commission is an innovative and successful environmental organ that contributes to the revision processes of the Convention and sets the document as the paradigm of regional cooperation that achieved the purification of the vulnerable, closed and shallow Baltic Sea. Another regional corpus is the 1992 Oslo-Paris Convention<sup>94</sup> that caters for the regulation of operational pollution and the decommissioning of disused platforms<sup>95</sup> attempting to reach a holistic approach to environmental protection. OSPAR Convention establishes a comprehensive approach, speaks about elimination and reduction of pollution, encompasses the concept of sustainability in a legal document, and is characterized by flexibility in revision through its Annexes. The path to regional agreements, that address marine pollution from all sources, should be chosen by the majority of states as effective environmental protection is not possible with the efforts of only one state.

On the issue of liability, it needs to be mentioned that the entire regime is based upon the 1992 Civil Liability Convention (CLC) and the modified 1992 Fund Convention, which establish strict liability to the owner of the ship. However, there is no detailed and binding instrument to address civil liability for oil pollution caused by offshore activities, letting national laws regulate on offshore installations. The 1976 London Convention is a forgotten instrument that refers to the industry as a whole and the sole

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<sup>92</sup>OPRC, 1990, Art.4.c.

<sup>93</sup>Convention on the Protection of the Marine Environment of the Baltic Sea (Helsinki Convention), 1992.

<sup>94</sup>Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), 1992, Art. 5 and Annex III ('Prevention and elimination of pollution from offshore sources').

<sup>95</sup>OSPAR Convention, Annex III, Art. 9. It is applicable to offshore installations and asks for reporting to authorities in case of an accident and notification of the contracting parties.

dealing with liability for damage by offshore activities, but it has not put into force<sup>96</sup>. It is true that economic interest influences a state's acceptance of international rules on liability. But we need to initiate a dialogue and learn from each other's liability regime in order to develop a mature global corpus and achieve progress in the field of compensation.

The protection and safeguarding of the domestic environment should advance to an issue of international importance and care, as prompt access to information at the national level, application of the precautionary approach and the conduct of environmental impact assessments can be the basis for a robust and effective framework of protection both in national and in international level. However, we have noticed that both 'hard' law, customary norms and the 'soft' law principles are very general and establish a weak regime that has not halted the depletion of the marine environment; the customary rules are not competent and suitable in order to regulate the offshore oil and gas industry. What is needed is a detailed legal framework that would encompass any aspect of the problem since existing legislation covers mostly vessel-source pollution, opinion to be later on to this dissertation. This document could also offer motives for the mandatory integration of sustainable economic development goals, on the part of the industry, boosting competitiveness while conserving the marine environment. International regulations should try to improve the current regime and achieve high-safety standards since banning of offshore drilling is impossible because global economy depends on fossil fuels.

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<sup>96</sup>Scicluna, N. (2011), "A legal discussion on civil liability for oil pollution damage resulting from offshore oil rigs in the light of the recent Deepwater Horizon incident", *UNEP/MAP*, 2013, Athens, pp.: 49-50.

## CHAPTER 3-From the Gulf of Mexico accident...

Till now, the study of the regulation in the subdivision of safety in offshore activities has proven features of discontinuity, fragmentation, deconstruction and disintegration as the adoption of an international binding agreement would be the sole assurance for the protection of the marine environment from actions related to the exploitation and exploration of the seabed and its subsoil. But, 2010 marks a significant and remarkable date for the evolution of the framework since the international community was mobilized, and reacted towards the acceptance and enforcement of effective sectoral and regional agreements, which were waiting for ratification.

### 3.1. The Macondo challenge

The explosion of the 20<sup>th</sup> April 2010, which occurred on the *Deepwater Horizon*, a semi-submersible drilling unit in the Gulf of Mexico can be characterized as a big challenge in need of national and international response, as it led to the death of 11 people and the injury of many others. The drilling platform-having obtained a Marshallese flag of convenience-was owned and operated by *Transocean* and it was leased to *British Petroleum* (BP), while Halliburton, a U.S. construction company, was held responsible by the two others to cater for the cementing and plugging of the well, prior to the accident<sup>97</sup>. To provide with a timeline of events it is deemed important to refer to the fire and the subsequent explosions that led to the sinking of the platform 2 days post the initial blowout. Estimates indicated that approximately 4, 9 million barrels of oil were diffused before the successful containment and the full cost was set to 30 billion euros, causing huge environmental and economic impacts<sup>98</sup>. The sea area was polluted, 800 km of coastline were contaminated, fishing activity was forbidden, and tourism was dreadfully affected. The incident damaged the marine environment, injured private economy, public budget was affected and a moratorium on drilling stopped paused exploitation and exploration for a period of time and cost a deal of money to oil companies<sup>99</sup>. It is true that drilling has a strong economic benefit since a state alleviates its dependence to import oil from overseas.

Therefore, the *Deepwater Horizon* oil spill was considered as the largest related catastrophe having ever occurred in the U.S. coastal waters and probably the biggest

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<sup>97</sup>James, T. (2010), "The Implications of the *Deepwater Horizon* oil spill in the Gulf of Mexico", *Library Note for the House of Lords*, UK, pp.: 1.

<sup>98</sup> James, T. (2010), above no. 77, pp.: 5.

<sup>99</sup>Trevisanut, above no. 84, pp.: 1.

in the catalogue of oil spills globally<sup>100</sup>. The organized clean-up operations, the efforts to stop the release of crude oil in the Gulf of Mexico and the containment of hydrocarbons' dissipation, and the assigning of responsibility provoked heated debates. In the meantime, oil was gushing out from the Macondo<sup>101</sup> 252 well for 87 days, the period of time that experts took in order to seal the site<sup>102</sup>. The accident indicated possible transboundary consequences in situations “*where neighboring maritime boundaries meet in more confined waters*”<sup>103</sup> like those of the Mexican Gulf, where vulnerabilities of the ecosystem are an added disadvantage. The problem became even worse due to the interdependence of the organisms, because the effect in one could disturb the lifecycle of the rest. Consequently, the oil spill was detrimental to oyster reproduction and the spawning of many other species, like the blue crab which has started to diminish. Moreover, tourism and fishing succumbed to direct harm due to bad reputation which affected public perceptions and led to loss of confidence. For instance, U.S. food supply was associated with oiled and unsafe for consumption fish, and the sandy beaches of the shoreline that turned into soiled surfaces, provoked a series of cancellations in hotel reservations and recreational activities; media coverage influence public opinion and increase notoriety. The economy of the Gulf is rooted in its ecosystem and the interdependence between energy, fishing, and tourism creating a mix that aims at resilience and sustainability. To respond, the authorities chose controlled, *in situ* burning, and a great deal of the work to seal the well was carried out by a sub-sea collection system<sup>104</sup> and cleaning up stations were set up on ports to limit the oil gathered there from harboring vessels.

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<sup>100</sup> We only talk about peacetime oil spills, with the previous big one being the Ixtoc I disaster in Mexico with the release of 350 million liters of oil into the ocean. The biggest ever oil spill has occurred during the war between Iraq and Kuwait when 240 million gallons were spilled according to the Oil Spill Intelligence Report: [http://articles.cnn.com/2010-05-27/us/oil.spill.amount\\_1\\_oil-spillintelligence-report-exxon-valdez-oil-rig-explosion?\\_s=PM:US](http://articles.cnn.com/2010-05-27/us/oil.spill.amount_1_oil-spillintelligence-report-exxon-valdez-oil-rig-explosion?_s=PM:US).

<sup>101</sup> BP had named the prospect after the fictional town in Marquez's novel *100 years of solitude*, and the coincidence is that the fate of the well resembles that of the fictional place. “...It was as if God had decided to put to the test every capacity for surprise and was keeping the inhabitants of Macondo in a permanent alternation between excitement and disappointment, doubt and revelation, to such an extreme that no one knew for certain where the limits of reality lay..”, Marquez, G.G. (1970), *One Hundred Years of Solitude*, translated by Gregory Rambassa, New York: Avon Books, pp.: 212.

<sup>102</sup> Scicluna, above no. 96, pp.: 26-27.

<sup>103</sup> Fanos, A. (2011), “The Regulation of Offshore Oil Spills by the Australian Petroleum Legislation and the Aftermath of the Montara and Deepwater Horizon Oil Spills”, *International Energy Law Review*, Vol. 2, pp.: 37.

<sup>104</sup> “BP finally seals leaking Gulf of Mexico oil well”. *BBC NEWS*, 19 September 2010, Web, Read on 16 August 2015, available at <http://www.bbc.com/news/11365122>

On the aftermath of the accident and the ecological catastrophe, emphasis was put upon the prevention of similar accidents and the mitigation of related risks. It is certain that the huge oil spill, the consecutive pollution of the marine environment and the impacts on wildlife and the natural habitat<sup>105</sup>, directed discussions and fixated attention to the effectiveness of the existing environmental regime as far as prevention, preparedness, response and liability are concerned<sup>106</sup>. Notably, the public showed greater interest upon the investigation and the research upon ways to avoid such crises in the future, after the publication of the verdict by the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, which was established by President B. Obama that the accident was preventable since the causes result from systemic failures, poor management by the industry and ineffective regulation by the government, factors that could not guarantee a safety culture in the drilling unit. The companies did not share frequent consultations, decisions were taken without considering all the parameters, the choice of less costly and less time-consuming options increased the risks and the regulations were inadequate to avoid any disaster<sup>107</sup>.

Both the House of Representative and the Senate of the USA proposed legislative initiatives via the amendment of the 1990 Oil Pollution Act to oblige oil polluters to pay full compensation for any damage caused, increasing the liability cap to 10 billion U.S. dollars<sup>108</sup>. BP paid about 3,3 billion U.S. dollars to the individuals and the small-businesses affected, but the compensation did not ameliorate the environmental and economic situation in the Gulf, since environmental experts exclaimed that complete recovery may not be seen for a decade<sup>109</sup>. The legislative proposals included two packages, the Consolidated Land, Energy and Aquatic Resources Act and the Clean

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<sup>105</sup> For more information about the consequences of the oil spill to the natural habitat, see <http://www.nwf.org/What-We-Do/Protect-Habitat/Gulf-Restoration/Oil-Spill/Effects-on-Wildlife.aspx>, Read on 12 June 2015.

<sup>106</sup> A very good analysis on the issue of effectiveness pertaining to international environmental regimes has been conducted Helm, C., Sprinz, D. (2000), "Measuring the Effectiveness of International Environmental Regimes", *Journal of Conflict Resolution*, Vol. 44, No. 5, pp.: 630-652, and Doussis, E. (2014), *Η περιβαλλοντική διακυβέρνηση σε κρίση (Environmental governance on crisis)*, Athens: Papazisis, pp.: 151-169 and 182-207.

<sup>107</sup> National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (2011), *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling*, Report to the President, available at <http://www.gpo.gov/fdsys/pkg/GPO-OILCOMMISSION/pdf/GPO-OILCOMMISSION.pdf>, Read on 23 July 2015.

<sup>108</sup> "Fears on the Horizon" (2010), *Fairplay*, Vol. 369, pp.: 4-5.

<sup>109</sup> Palmer, J., "Gulf spill's effects 'may not be seen for a decade'", *BBC NEWS*, 21 February 2011, Web, available at <http://www.bbc.com/news/science-environment-12520630>, Read on 20 August 2015.



Energy Jobs and Oil Company Accountability, that advance presidential power over the liability caps and propose unlimited liability for offshore facilities, thus, influencing irreparably maritime commerce<sup>110</sup>.

As it has been observed, an accident sets drawbacks to neighboring ecosystems and the economic power of a sole state is not sufficient to sustain the recovery operations. Since drilling is a risky process associated with loads of oil revenues, business practice should be shifted and regulators are asked to rely more on their assumptions and less on the desires of the industry concerning the promotion of safety measures. Lastly, the incident in the Gulf of Mexico verified the inabilities and inadequacies of the U.S. in the field of safety in offshore drilling, and the discussion over the foundation of a regional environmental regime akin to the latter issue that would strengthen and enhance the readiness and mobility of the mechanism is omnipresent and prevailing.

### 3.2. Regional arrangements and bilateral agreements

The *Deepwater Horizon* accident enlightened the attention and the interest for the ‘dormant’<sup>111</sup> 1994 Mediterranean Offshore Protocol, which is the sole agreement, even if it is sectoral and regional, whose scope of application covers in clarity offshore activities. Furthermore, the newly-established installations in Libya, Italy, Egypt and Croatia, the increasing level of socio-economic development in the Mediterranean basin, the abundance of natural resources in the seabed and its subsoil thereof, and the vulnerability of the waters as the Mediterranean is a semi-enclosed sea body where the waters find it difficult to be renewed, set the factors for the establishment of common and qualitative regional standards for the prevention of marine pollution. The Protocol is one of the supplements to an “umbrella treaty”, the 1976 Barcelona Convention for the Protection of the Mediterranean Sea from Pollution-amended in 1995-that provides with the general guidelines and framework. The UNEP Regional Seas Programme and the Action Plans<sup>112</sup> for each region are

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<sup>110</sup> “Drill and Spill bill threat looms” (2010), *Fairplay*, Vol. 369, pp.: 24-25.

<sup>111</sup> Raftopoulos, E., “Sustainable Governance of Offshore Oil and gas Development in the Mediterranean: Revitalizing the Dormant Mediterranean Offshore Protocol”, *MEPIELAN eBulletin*, 19 Aug. 2010, Web, Read on 27 April.

<sup>112</sup> The Mediterranean Action Plan (MAP) was launched in 1975 after an inter-ministerial conference and its legal basis and principles derive from the 1976 Barcelona Convention. MAP is the first initiative under the programme and has a scientific, socio-economic, legal and financing branch, whereas its Secretariat is located in Athens, Greece. The research component is the MEDPOL and the policy-planning is governed by the Blue Plan and the Priority Actions Programme.

initiatives that express the path to regionalism in international affairs. The Offshore Protocol entered into force on 24 March 2011, after its ratification by the minimum required number of state-parties<sup>113</sup>, and currently has been signed by 12 states. 7 countries have ratified it (including the EU), and in 6 it has entered force<sup>114</sup> (e.g. Greece has not ratified it yet). Its legal basis is Article 7 of the Barcelona Convention.

Regionalism is a broadly-welcomed concept at international law and international relations, since it is recognized and embraced by the Charter of the United Nations<sup>115</sup> proving that universal solutions are not always effective and adequate<sup>116</sup>. Taking into consideration the rate of pollution, the geographic conditions, the water flow, the temperature and the particularities of each sea, the path for the promotion of regional agreements is seen as a positive alternative to reach an immediate consensus among the states that share commonalities<sup>117</sup>. Moreover, the organs and the mechanisms deriving from an omnibus agreement may acquire a more efficient role in the monitoring, the implementation, and the compliance procedures because of the desire to provide a solution to a regional and national matter. Regional organs can be seen as more legitimate and accountable than international ones pertaining to issues close to state sovereignty, as it is easier for a state to cede sovereignty to a regional institution<sup>118</sup>. Finally, regionalism can create norms to be adopted internationally, rendering a regional convention into a global instrument, because there is an open-clause to all regional agreements allowing such transformation<sup>119</sup>.

Article 3 of the Protocol addresses the duty of the parties to cater for the prevention and confrontation of pollution in the area of applicability, which is “the Mediterranean Sea Area...including the continental shelf and the seabed and its

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<sup>113</sup>The Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (Mediterranean Offshore Protocol), 1994, Art. 32.4.

<sup>114</sup> The following 6 countries are those that have ratified the Protocol: Albania, Cyprus, Morocco, Tunisia, Syria, and Libya. In 2012, the EU has conformed to the Protocol’s system. The Protocol acquires binding vigor for the states that have not only signed it but they have also ratified it. The negotiations over the Protocol have lasted for about 10 years due to the intense participation by the petroleum industry, leading to the weakening of the provisions.

<sup>115</sup>Charter of the United Nations, 1949, Art. 52-54.

<sup>116</sup> At the same pathway we meet the Kuwait Protocol (1978), the Abidjan Protocol (1981) and the Baltic Sea Convention (1992).

<sup>117</sup>Gavouneli, above no. 9, pp.: 43.

<sup>118</sup> Fawcett, L. and Hurrell, A. (1995), *Regionalism in World Politics*, Oxford: Oxford University Press, pp.: 312-313.

<sup>119</sup>Gavouneli, M., “Energy at sea: New Challenges over troubled waters in the Eastern Mediterranean”, pp.: 11-12.

subsoil”<sup>120</sup>. It applies to exploration and exploitation activities and covers all types of installations as a signifier of plenitude and completeness. Moreover, the best available techniques (BAT), which should be “environmentally effective and economically appropriate”,<sup>121</sup> are proclaimed and a great importance on the operators is depicted when referring to requirements for authorization<sup>122</sup>. Authorization should be written after the confirmation that certain standards pertaining to prevention and precaution are met by the operator<sup>123</sup>. Safety zones should be established<sup>124</sup> and due diligence that would guarantee sustainable development and marine environment conservation is a key to the success of the regime. Therefore, the states are only held liable for their own failure to act in due diligence and not for any negligence on the part of the operator. A success story is the accurate definition of the operator<sup>125</sup> who sets the safety culture<sup>126</sup>, and the communication with the Protocol on Specially Protected Areas<sup>127</sup>(SPAs) demonstrating a uniformity in the Barcelona Convention system.

Treatment for the economics is provided through the concepts of liability and compensation<sup>128</sup>. Liability-strict or limited-is imposed on the operator, who is asked to pay prompt and adequate compensation and should also possess financial insurance. However, even if diction seems tough and demanding, the rules of liability need amendments since oil spills are associated with long-lasting consequences and huge expenses on the part of the wrongdoer. A viable proposal would address the adoption of a regional agreement on the issue of liability for an accident because the 1977 Convention on Civil Liability for Oil Pollution Damage has not and will not enter into force, as it is thought as anachronistic, and also 1974 Oil Pollution Liability Agreement is an industry-oriented self-regulation mechanism<sup>129</sup>. Other lacunae of the Protocol is the absence of participatory approach on information sharing, following

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<sup>120</sup>Mediterranean Offshore Protocol, 1994, Art.2.a.

<sup>121</sup>Mediterranean Offshore Protocol, 1994, Art. 3.1.

<sup>122</sup>Mediterranean Offshore Protocol, 1994, Art.5, and 8.

<sup>123</sup>Mediterranean Offshore Protocol, 1994, Art. 4.1. Such means include the operator’s contingency plan, the insurance or other financial security to cover liability, and the environmental impact assessment, as they are presented in Article 5 of the Protocol.

<sup>124</sup>Mediterranean Offshore Protocol, 1994, Art. 6.2.

<sup>125</sup>Mediterranean Offshore Protocol, 1994, Art. 1. g.

<sup>126</sup>Mediterranean Offshore Protocol, 1994, Art. 15.

<sup>127</sup>Mediterranean Offshore Protocol, 1994, Art. 21. The aforementioned Protocol was signed in 1995 and entered into force in 1999.

<sup>128</sup>Mediterranean Offshore Protocol, 1994, Art. 27.

<sup>129</sup>Convention on Civil Liability for Oil Pollution Damage from Exploration and Exploitation of Sea Bed Mineral Resources (CLEE Convention), 1977.

Offshore Pollution Liability Agreement (OPOL), 1974. <http://www.opol.org.uk/agreement.htm>  
Read on 30 July 2015.

the Aarhus Convention <sup>130</sup> standards that tie human rights and environmental protection, the loose measures on the operation of the installations, and the concern for the ecosystem after the decommissioning process. Finally, another problem is raised by the non-ratification by all Mediterranean countries (e.g. Greece), especially in times when discussion over the possibility of launching exploratory activities is heightened, and the fact that countries (e.g. United States of America) that exploit the Mediterranean region through their companies are not parties to the Protocol set a misty scenery about the effectiveness of the regime. We should not forget that the Mediterranean is a sea of riots and instability and the recent discovery of hydrocarbons in the Eastern basin cause economic and military concern in the region.

Another form of regulation is the signing of bilateral contingency plans between two coastal states, sharing sensitive areas or areas where offshore activities are conducted. A typical example is the 1989 USA-Russia Agreement for the Bering and Chukchi Sea, which has a contingency plan, preventive and containment measures, creation of centers and teams, means to achieve cost recovery.

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<sup>130</sup>Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention), 1998.  
<http://ec.europa.eu/environment/aarhus/>, Read on 29 April 2015.

## CHAPTER 4- ...to the 2013/30/EU Directive

### 4.1. International and civil society response

The gravity of the *Deepwater Horizon* accident sparked the reaction of both government representatives and civil society advocates, who united their forces for a fruitful response and feasible recommendations to resolve the environmental and economic catastrophe. Immediately after the outburst, the G-20 Global Marine Environment Protection Working Group being constituted by firms, trade unions, government representatives, NGOs, and international organisations took the initiative to forge a forum of discussion on the implementation of effective regulations pertaining to the evasion of such accidents in the upcoming future<sup>131</sup>. It should be noted that the Russian proposal for the establishment of a deterrent and preventive mechanism that would be funded through mandatory contributions from the industries with the purpose to prevent damages and support clean up operations<sup>132</sup>, opened up the discussion about self-regulation and compensation regimes, on the part of corporations, to attain global environmental protection.

As far as the civil society is concerned, the blowout stimulated action by the Greenpeace that constrained companies from conducting drilling activities in many regions, including the North Sea, and demanded the publication of the accidental spill prevention plan from the offshore oil companies<sup>133</sup>. To conclude, the Gulf of Mexico incident has highlighted the unintended but forewarned result of careless actions and decisions taken on the part of the industry, government and businesses, and has proved that prevention and inter-state cooperation are necessary in neighboring, hostile and harsh marine environments, since on the one hand an accident disturbs adjoining ecosystems and on the other, the economic vigor and power of one state is deemed deficient and incompetent to sustain the huge cost of cleanup operations. Economic integration asks for collaboration both in the international, regional and national sphere, as well as efficient attempts to combat the inability of public authorities to implement difficult but necessary measures and the complexity of administration to be organized in order to function explicitly.

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<sup>131</sup> Cameron, P. (2012), "Liability for Catastrophic Risk in the Oil and Gas Industry", *IELR*, Vol. 6, pp.: 216.

<sup>132</sup> Sorokin, V. (2011), "Challenges of the G-20 Global Marine Environment Protection Working Group", *International Regulators Forum Offshore Safety Summit Conference*, available at <http://www.irffshoresafety.com/conferences/2011Summit/presentations/Presentation-ValerySorokin-ChallengesofG20GMEP.pdf>, Read on 28 August 2015.

<sup>133</sup> Cameron, above no. 131, pp.: 216.

## 4.2. Post-*Deepwater Horizon* regulatory developments in the European Union

The EU is acknowledged for its advanced environmental policy and could be characterized as a frontrunner on the establishment of regulatory and transparency standards for the oil industry. More specifically, based upon the “polluter-pays” principle a Directive on Environmental Liability<sup>134</sup> was adopted in 2004. This Directive came as a response to the *Erika* (1999) and *Prestige* (2002) accidents and included pollution from offshore activities under the terms of prevention and reparation after a catastrophe. Till then, the European legislation pertaining to mining were not sufficient enough to cover the issue of offshore drilling operations<sup>135</sup>, the safety culture was insufficient, the regulatory framework was fragmented and liability mechanisms were suffering from a lack of clarity.

After the *Deepwater Horizon*, attention was shed upon the prevention of such accidents, and offshore safety has risen in the agenda of the EU showing once more that big environmental catastrophes provoke the development of legal regimes. Therefore, the incident as well as the launching of exploratory activities for the discovery of hydrocarbon in EU waters, led the European Commission towards the shielding of its regulatory framework in order to reach harmonization in safety issues inside the EU as a whole. Even if there was an initial desire for the dissemination of a Regulation<sup>136</sup> with provisions associated with safety, mitigation of risks, preparedness, assignment of liability and compensation<sup>137</sup> in order to respond to the EU’s heterogeneous environmental regime<sup>138</sup>, reactions on the part of the industry and some Member States, initiated a new round of consultations and negotiations and led, in 2013, to the adoption of a Directive aiming at minimizing risks and eradicating the consequences of an accident in an offshore installation. The industry argued that the Commission has focused its proposal on false assumptions, that the United Kingdom offshore activities regime could be undermined, and that the document in the form of a Regulation would not need the cooperation of governments or the industry during its

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<sup>134</sup> Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004.

<sup>135</sup> “Better regulation essential to avoid Deepwater Horizon Europe”, *ClientEarth*, 07 September 2010, Web, available at <http://www.clientearth.org/news/press-releases/deepwater-horizon-europe-960>, read on 19 August 2015.

<sup>136</sup> Proposal for a Regulation of the European Parliament and of the Council on Safety of Offshore Oil and Gas Protection, Exploration and Production Activities, 2011.

<sup>137</sup> Vinogradov, above no. 81, pp.: 351.

<sup>138</sup> European Commission Communication, “Facing the Challenge of the Safety of Offshore Oil and Gas Activities”, 2010, supra note 13.

amendment procedure of existing national rules<sup>139</sup>. The Directive was considered as a useful tool because it addresses all Member States, is binding with respect to the intended result and directly applicable, thus, it is a reconciliatory instrument that respects the diversity of national traditions while at the same time it guarantees the uniformity of laws inside the EU<sup>140</sup>. Another advantage is the fact that it allows Member States the freedom on how to incorporate the objectives into their domestic legal systems, an important feature in the case discussed due to the reactions related to the United Kingdom transposition, and an element for the evolution of the single market.

The new Directive on safety of offshore oil and gas operations<sup>141</sup>, has been put into force on 19 July 2015, and upgrades the legal framework of the EU as far as offshore activities are concerned. The Directive calls for the issuing of a license prior to the initiation of any step concerning exploration or development, the implementation of an Environmental Impact Assessment and the insurance of financial and technical capabilities on the part of the applicant<sup>142</sup>. Independent verification, periodic inspections and the renewed licensing regime are considered as the cornerstones for the success of the document. Moreover, active public participation is set as a prerequisite under the provisions of the Aarhus Convention<sup>143</sup>. Prevention will be reached after every-day operations on the platform<sup>144</sup>, and contingency plans for emergency preparedness and response<sup>145</sup>. To assess a risk or an emergency, there will be a Major Hazards Report which will function as a tool that incorporates best practices, contingency plans and emergency procedures to respond to a crisis<sup>146</sup>. The aforementioned report should be distributed to an independent national authority<sup>147</sup>, which will evaluate them and act as the coordinator between the industry, the relevant stakeholders, the rest of the national agencies and the Commission through the

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<sup>139</sup> The latter was contrary to the Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community, 2007.

<sup>140</sup> Borchardt, K. (2010), *The ABC of European Union Law*, Luxembourg: Publications Office of the European Union, pp.: 89-90.

<sup>141</sup> Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013.

<sup>142</sup> Directive 2013/30/EU, Art. 4.

<sup>143</sup> Directive 2013/30/EU, Art. 5.

<sup>144</sup> Directive 2013/30/EU, Art. 19.

<sup>145</sup> Directive 2013/30/EU, Art. 28-29.

<sup>146</sup> Directive 2013/30/EU, Art. 12-13.

<sup>147</sup> Directive 2013/30/EU, Art. 8. Such authorities should be also created in states that do not conduct offshore activities or are land-locked, according to Article 32 of the Directive.

European Union Offshore Oil and Gas Authorities Group (EUOAG)<sup>148</sup>. The national authorities should show respect to safety measures and can also impose sanctions when the standards are not met. To address any transboundary impacts of the oil spills, Member States will be aided by the European Maritime Safety Agency<sup>149</sup> (EMSA). Information sharing between the operators and owner and the competent authority is of utmost importance to achieve public accountability and the submission of a national report to the Commission in an annual basis is set as a prerequisite to boost transparency<sup>150</sup>. The international character of the legislation is depicted through the demand for cooperation with third countries that undertake relevant activities in EU maritime regions, and is even strengthened through the provision that asks for the promotion of EU high standards at a global level<sup>151</sup>. We observe that the European Commission tries to promote its safety standards across the world as operators in EU waters must apply the same practices when they operate overseas. On the issue of liability we can admit that the effect of the Environmental Liability Directive, regarding the remedying of damage is extended to offshore installations as the definition of “*waste damage*” expands to cover also “*marine waters*”<sup>152</sup>.

The flexible and accurate 2013/30/EU Directive embraces the whole European Community of states, establishes minimum goals to prevent major accidents and oil spill and sets the conditions for safe exploration and the reduction of marine pollution. Its pillars include prevention, preparedness, information-sharing, inter-state cooperation, emergency response and catering for transboundary impacts. Therefore, it can be considered as an amelioration of the existing one and a step forward. However, the proper implementation of the abovementioned regulatory framework at domestic level remains the main future challenge for the EU credibility at global context, taking into consideration especially the conflicting interests of the involved parties.

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<sup>148</sup>Directive 2013/30/EU, Art. 27. The mandate of EUOAG is presented in preambular paragraph 47 of the Directive.

<sup>149</sup>Directive 2013/30/EU, Art.10, para. 2.

<sup>150</sup>Directive 2013/30/EU, Art.23, 25.

<sup>151</sup>Directive 2013/30/EU, Art. 33.

<sup>152</sup>Directive 2013/30/EU, Art. 38. See also Gavouneli, M., “Energy Installations in the Marine Environment”, pp.: 16.



## CHAPTER 5-The economic dimension of integration: the path for a new deal

The effectiveness of the EU policy regarding offshore activities and the delivered outcomes could be seen as a step towards further integration in the energy sector. Many stakeholders and academics argue that the establishment of a common Energy Union could be the vehicle for dealing with the challenges that the EU faces in times of crisis<sup>153</sup>. Thus, the discussion about the different political and economic aspects related to such a policy initiative is closely associated with the future of European integration.

Moving the EU forward is a motto that encompasses ideals of economic, social and political nature aiming to respond to current challenges, appearing after 2008, which question the capacity of the European system to emerge from its ashes and respond effectively<sup>154</sup>. The restoration of public faith and trust in an EU hit by economic, financial and humanitarian crisis have initiated a dialogue that will generate effective, fruitful and viable suggestions for the future of European integration and the forging of a new pact for the EU as a whole; a set of proposals that would benefit both Member states and societal groups. To attain integration with an economic dimension in the field under discussion, the EU should fight for unity, reconciliation and a new vision that would settle the EU institutions as a “win-win” pill to the unhealed wounds of fragmentation, dissatisfaction, and chauvinism<sup>155</sup>.

Moving towards a further unification in the political and economic sphere seems rather dreamy given the reluctance of politicians and citizens in topics related to national sovereignty. Consolidation might seem as the solution to let the EU take a deep breath and re-orient itself in order to respond to the present loss of ambition; but should the path of reform be paused? The answer involves closer cooperation and participatory approach in an EU, where sustainable economic growth, job creation, social justice and democratic legitimacy are set as the pillars to replace the stains of the past and equip the EU with hope and solid ideals. The completion of a new

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<sup>153</sup> New Pact for Europe (2015), *General Observations and Main Conclusions of NPE Events*, The King Baudouin Foundation, the Bertelsmann Stiftung and the European Policy Centre.

<sup>154</sup> Davis, J. (ed.) (2014), “New Pact for Europe: Second Report. Towards a New Pact for Europe”, *The King Baudouin Foundation, the Bertelsmann Stiftung and the European Policy Centre*, pp.: 3.

<sup>155</sup> Nicolaidis, K. (2013), “European Democracy and Its Crisis”, *Journal of Common Market Studies*, Vol. 51, No. 2, pp.: 351-369.

narrative, which is called the Energy Union<sup>156</sup>, might depict EU's added value to Member states, stakeholders and the global arena and would express the evolution and the pragmatic implementation of the 2013/30/EU Directive. It will deliver spill-over effects in the area of economic, environmental and political affairs and will refuel the concept of integration in order to navigate safely in the waters of prosperity and stability. The EU should accept a new package of initiatives that would encourage development, investment and protection of the environment.

The momentum for reinvigoration lies at the heart of the Energy Union which will be the drive to address an alternative priority. The EU is ready to shift gears towards a unified energy policy aiming at energy security, safety, environmental protection, economic expansion and independence on imports by neighbors with controversial relations<sup>157</sup>, since the know-how and the preparation lies at the new EU Directive. By doing this, the EU will be able to reverse the mistrust, raise productivity, increase the incomes and achieve competitiveness, as growth and job seats will be stimulated converging the gap between North and South. The newly appointed Juncker Commission has set the goal of a resilient Energy Union that would enhance the EU's image in the foreign policy dimension and would complete the single market project through the diversification of energy sources, the application of renewable energies to build a sustainable and climate-friendly economy, boost competition, improve the function of the internal market and make EU a leader in the field of energy efficiency<sup>158</sup>. Following the proposals of the Europe 2020, set by the Barroso Commission, for a resource-efficient Europe that would avoid environmental degradation and unsustainable consumption, the 2014-2019 programme seems very promising and offers the chance of restoration. It is true that an Energy Union is the way to improve the climate change policy and boost sustainability, as it promotes renewable and reliable energy in a unified environment striving for economic growth<sup>159</sup>.

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<sup>156</sup> Davis, J., above no. 154, pp.: 31-34.

<sup>157</sup> Davis, J., above no. 154, pp.: 32.

<sup>158</sup> Bassot, E. and Debyser, A. (2014), "Setting EU Priorities, 2014-2019: The ten points of Jean-Claude Juncker's political guidelines", *EPRS*, pp.: 5-6.

<sup>159</sup> European Commission-Press Release, "Energy Union: secure, sustainable, competitive, affordable energy for every European", 25 February 2015, Web, available at [http://europa.eu/rapid/press-release\\_IP-15-4497\\_en.htm](http://europa.eu/rapid/press-release_IP-15-4497_en.htm), Read on 20 September 2015.

The desire for the creation of an Energy Union lies also at the Lisbon Treaty and its energy chapter<sup>160</sup>, where independence through renewables in an interconnected energy network is projected, as a means to achieve growth and environmental protection because the use of renewable energies reduces CO<sub>2</sub> emissions and creates new jobs in a greener economy. The Lisbon Strategy, through the Integrated Guidelines for Growth and Jobs, focuses upon the sustainable use of resources to strengthen environmental protection<sup>161</sup>. Furthermore, the 2013 European Parliament (EP) Resolution on the Energy Roadmap calls for the reduction on dependence from energy imports, the multiplicity in energy supplies and common energy solidarity, and highlights the “*importance of the EU's energy policy amidst the economic and financial crisis*”<sup>162</sup>.

Additionally, the 7<sup>th</sup> Environment Action Program<sup>163</sup> broadens the scope of the Lisbon Strategy within its environmental dimension as a crucial element for economic growth. The sustainable use of natural resources is centralized in EU environmental policy implementation, while sustainable development is considered a priority to elevate quality of life for future generations. To deliver these goals till 2020, better implementation of legislation via transposition of Directives and integration of environmental issues into other policy arenas, engagement of stakeholders for investment, adoption of renewable energy policies and communication with citizens are deemed necessary. Therefore, there is a hope that the 2020 Strategy will boost recovery from the economic crisis and will promote growth. Let us not forget that the principles of integration which may redefine economic development include dignity for all, increase of capital and intergenerational equity through renewables and protection of the ecosystem.

On the whole, the common energy market is one of the main policy priorities of the Commission. The move towards sustainability requires an evolution of the institutional and economic systems in order the EU to become effective and capable in complying with legislations. It is true that little integration between Member States’ markets is observed because the latter do not have a consistent behavior and act

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<sup>160</sup>Treaty of Lisbon, 2007, Chapter XXI, Art. 194.

<sup>161</sup> Integrated Guidelines for Growth and Jobs (2008-2010), Communication from the Commission to the Spring European Council, 2007, Guideline no. 11.

<sup>162</sup> European Parliament Resolution of 14 March 2013 on the Energy Roadmap 2050, para. 6.

<sup>163</sup> “Environment Action Programme to 2020”, *European Commission*, 27 August 2015, Web, available at <http://ec.europa.eu/environment/action-programme/>, Read on 10 September 2015.

opportunistically to defend their national interests; thus, they prevent the establishment of a common energy market which requires political will and cooperation<sup>164</sup>. It should be realized that energy is the tool to economic activity and a means to increase EU's ability to speak in a single voice<sup>165</sup>. However, more attention should be given to the advantages of renewables since dependence on fossil fuels is environmentally risky due to the associated pollutants resulting from discharges during mining and exploration activities of the seabed and the possibility of a catastrophic accident, especially when the legal regimes are characterized as rather incompetent to cover liability issues and guarantee prevention. Besides, the reduction of energy consumption by 20% in 2020 is linked to renewable energy sources since EU demand for oil will rise whereas domestic revenue will fall<sup>166</sup>. The economic dimension of integration is a collective project that determines the EU's existence and seeks for the adoption of environmentally friendly policies to acquire sustainability and long-term survival.

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<sup>164</sup>Ioannou, C. and Emilianides, A. (2014), "The Cypriot Hydrocarbons and the European Financial Crisis", *Journal of Energy Power Sources*, Vol. 1, No, 6, pp.: 335-336.

<sup>165</sup>Boromisa, A., "Energy for smart, sustainable and inclusive growth", in Samardžija, V., and Butković, H. (2010), *From the Lisbon Strategy to Europe 2020*, Zagreb: Institute for International Relations – IMO, pp.: 220.

<sup>166</sup>Ioannou, C. and Emilianides, A., above no. 164, pp.: 331.

## OBSERVATIONS AND CONCLUSIONS

The discussion highlights the need for consent to an effective, either international or regional, agreement to ensure safety in offshore drilling activities. The current regulatory framework can be set as the basis for the development of a more comprehensive policy dealing with all the different aspects of the conservation of the marine environment and the promotion of economic development. The balance between economic and environmental goals remains under discussion especially for the offshore activities, taking into account the absence of a global binding agreement as well as the gaps of the existing regulations. Bearing in mind that the cost of inaction in sector could be extremely high in case of an accident, the immediate adoption of a proper legislation at global level is not a cost-benefit but a risk-averse issue.

More specifically, a global convention that would apply to all maritime zones, with efficient enforcement mechanisms and with clear definitions is crucially needed. Particularly, it would be useful to establish control mechanisms and regulations—through the participation of states, operators and relevant authorities in the consultation procedure—that would reinforce exploration and exploitation activities without endangering the ecosystem.

Another alternative would be the adoption of a regional agreement that would take into account the particular economic interests of each state, the common priorities, and the vulnerabilities of the natural habitat can shield and preserve the marine environment. For instance, the existence of the progressive Mediterranean Offshore Protocol should have acted as a call for ratifications and an enchantment, not as a retreat, for regional states because of the recent *Deepwater Horizon* incident and the discussions over probable drilling activities in their maritime boundaries. This hesitation creates misty scenery which is strengthened by the rather complex and general national legislation that resists the drafting of a binding, flexible and all-encompassing regulatory regime. As an observation, it is time for the international community to act proactively and set a global regime catering for offshore installations in the light of economic development and political integration.

Let us hope that the advanced and recent regulatory framework of the EU will be the catalyst for a spill-over effect for the adoption of more detailed national or

international regulations pertaining to prevention, preparedness and response to accidents occurring in the seas. Consequently, the establishment of a legal framework that would enhance safety in the marine environment should be at the heart of any global summit related to sustainable development since existing international legislation is under-developed. The new regime should be fueled with participatory efforts by all relevant stakeholders and should follow the provisions of the Aarhus Convention to establish a framework of ecological democracy.

Paradoxical, though, is the EU's tendency to encourage states in the launching of drilling activities due to the crisis in its Eastern borders, while at the same time the issue of liability for damage is not fully covered by the recent Directive and an EU priority is the promotion of renewable energy resources. The latter are thought as a promising element to change our energy paradigm towards clean energy so we do not need to extract every last bit of oil and gas from the oceans and seas. Renewable energy sources are more resilient than oil and gas and are linked to very little emissions, thus, they alleviate the ecosystems from any pressure and promote sustainability. In addition, they are commercially valuable and conserve non-living natural resources leading to efficiency and the creation for a fertile land for investments<sup>167</sup>. Especially, in countries with an influx in wind and solar power, a turning to renewable energies would offer an added value due to their little cost and would enhance economic development among the community.

The issue of liability is problematic because the regime remains anachronistic, complex and open to various interpretations depending on overlapping interests. A solution lies either at the revival of the 1977 CLEE or to the signing of an agreement on civil liability on offshore activities with a geographical scope covering also the high seas. A viable proposal would be the creation of a compensation fund after industries' initiative, within the provisions of the Tanker Owners Voluntary Agreement concerning Liability for Oil Pollution (TOVALOP)<sup>168</sup> as non-state actors can fill the gap through self-regulation. States and relevant stakeholders must cooperate and focus on the precautionary approach and fight for the adoption of

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<sup>167</sup>Trevisanut, S., above no. 84, pp.: 13.

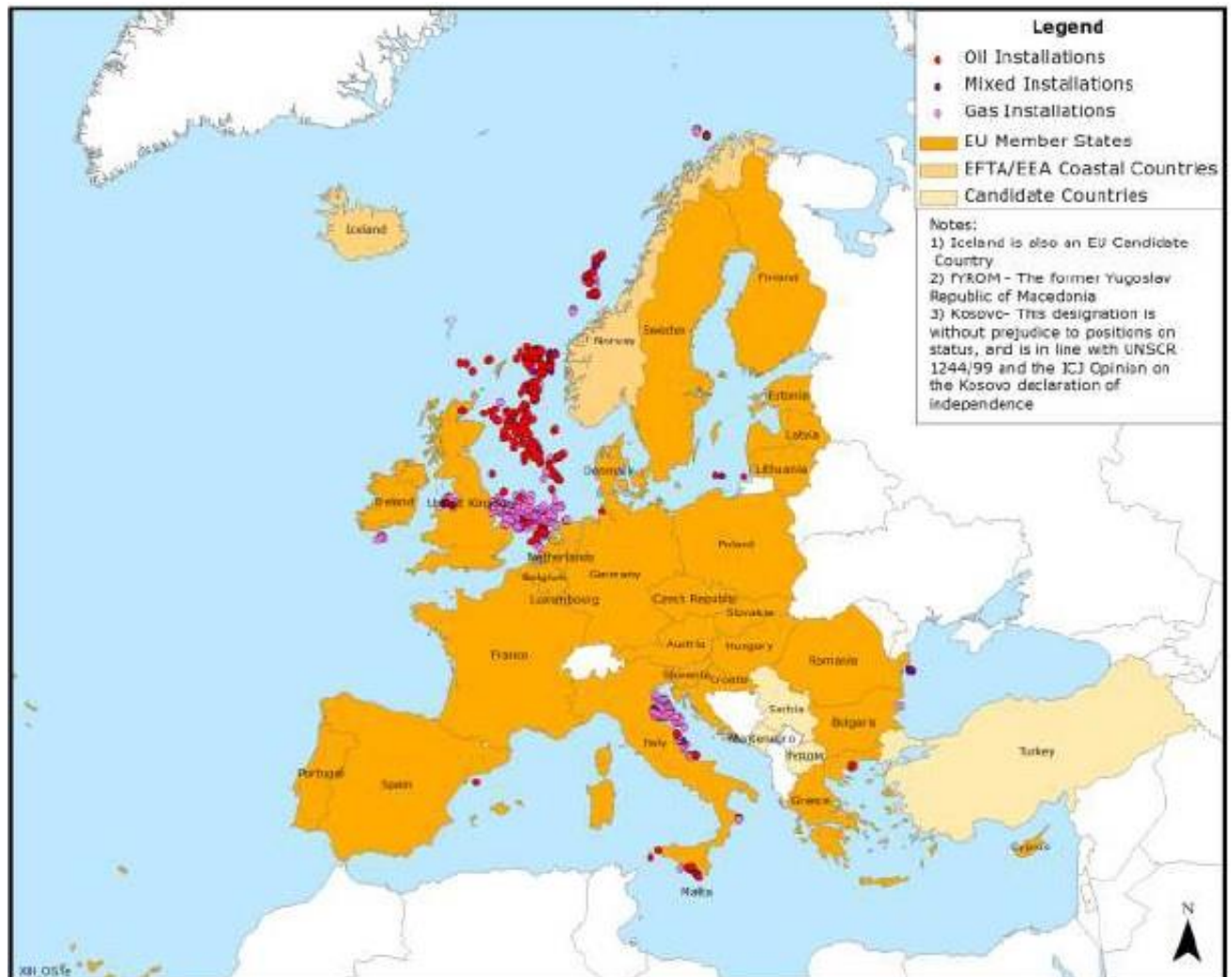
<sup>168</sup> Tanker Owners Voluntary Agreement concerning Liability for Oil Pollution (TOVALOP), 1968. This voluntary agreement has been signed after the Torrey Canyon (1967) accident and refers to liability for marine pollution by oil setting the basis for the management of a compensation scheme. The industry intervened dynamically to respond. For more see <http://www.itopf.com/about-us/our-history/>

preventative means. We need to go beyond the adoption of unspecified measures and develop surveillance mechanisms and new rules to cater for the eradication of the marine pollution.

To conclude, modernity lifestyle should adapt to ecological needs, to the call for renewable energy consumption and to the sustainable development goals, following an amended legal framework to meet current challenges. Effectiveness in safety of offshore drilling cannot be achieved without commitment by states and relevant stakeholders, acceptance and embodiment of regulations from their legal and political institutions. The renewed interest on hydrocarbons, as a promise to recover from the ongoing economic crisis, should respect the natural environment; offshore drilling activities ask for a detailed policy-planning and leadership will to cater for sustainable economic development. Since man's greed is overpowering and an oil spill can affect sensitive marine areas, it is true that no amount of money can repair the damage. The universal hopes revolve around prevention and the continuous interest, even in the upcoming years when the wounds and the memories of the *Deepwater Horizon* incident will not be fresh.

## ANNEX I

### Map of offshore installations in Europe



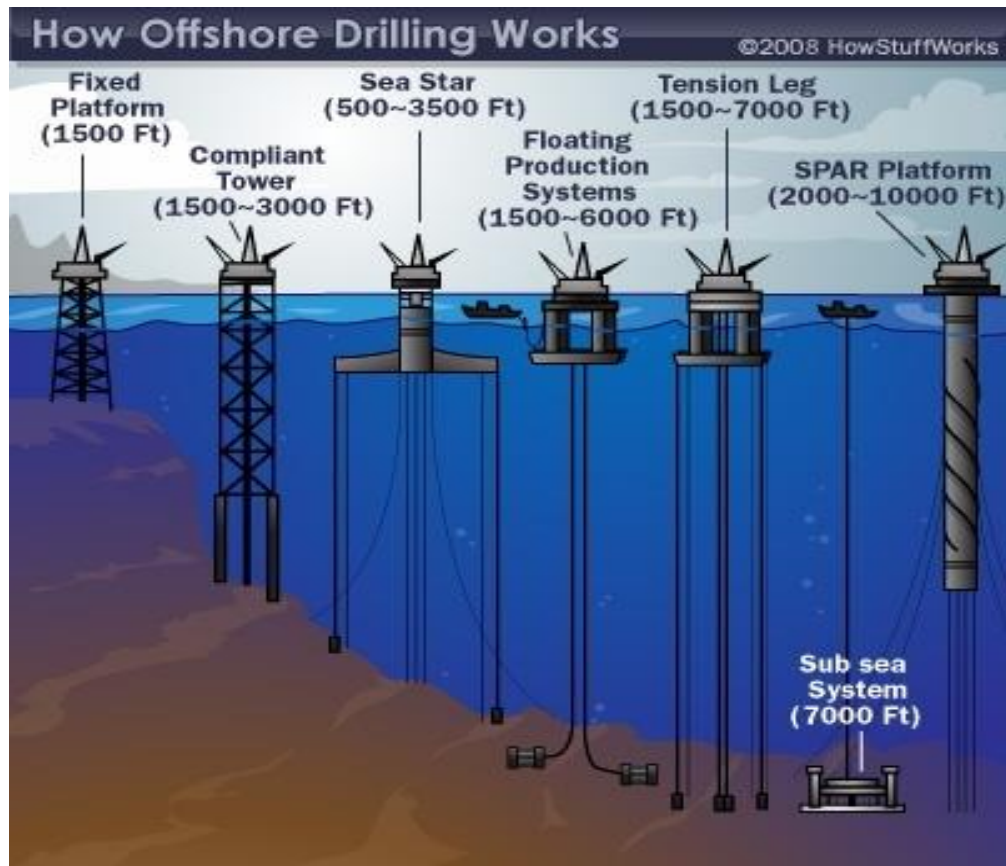
Source: “EMSA: Action plan for response to marine pollution from oil and gas installation”, *SAFETY4SEA*, 29 January 2014, Web, Read on 16 August 2015.

<http://www.safety4sea.com/ems-a-action-plan-for-response-to-marine-pollution-from-oil-and-gas-installation-19033>



## ANNEX II

### Offshore drilling production platforms

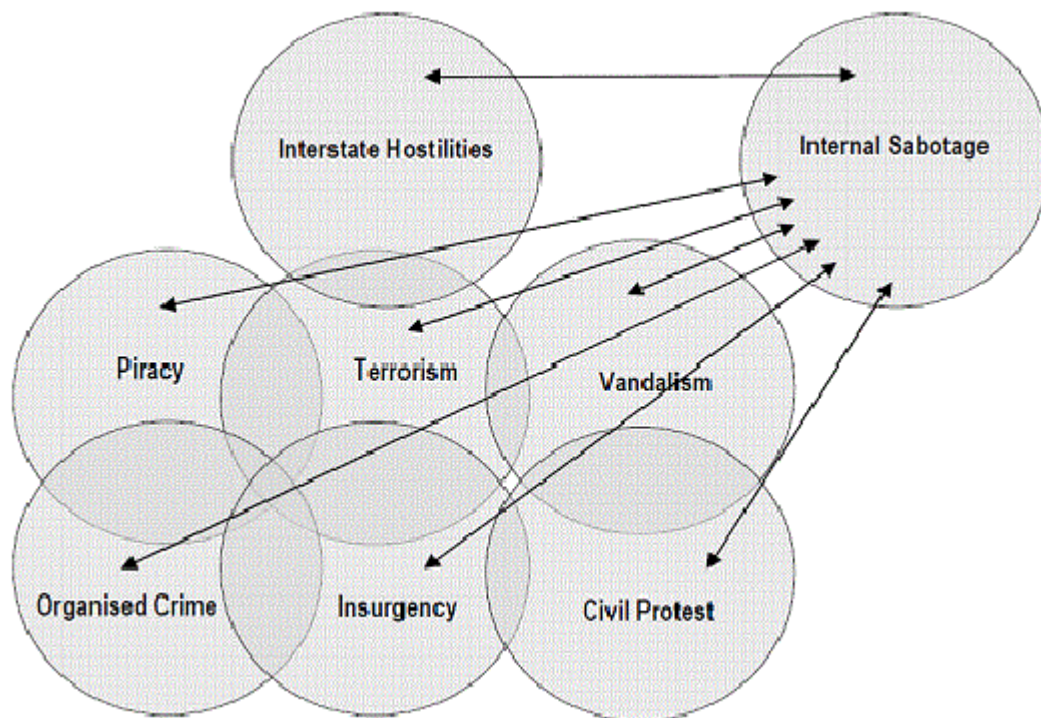


Source: Lamb, R. "How Offshore Drilling Works", *HOWSTUFFWORKS*, 10 September 2008, Web, Read on 29 August 2015.

<http://science.howstuffworks.com/environmental/energy/offshore-drilling.htm>>

## ANNEX III

### Offshore security threats



Source: Hansen, H., “Distinctions in the Finer Shades of Gray: The ‘Four Circles Model’ for Maritime Security Threat Assessment” in *Lloyd’s MIU Handbook of Maritime Security*, eds. Rupert Herbert-Burns et al., Florida: Taylor&Francis, 2009, pp.: 74-78.

## BIBLIOGRAPHY

### Textbooks

Beck, U. (1992), *The Risk Society: Towards a New Modernity*, Newbury Park, CA: Sage

Birnie, P., Boyle, A., Redgwell, C. (2009), *International Law and the Environment*, 3<sup>rd</sup> edition, Oxford: Oxford University Press,

Bodansky D., Brunnee J., Hey E. (eds.) (2007), *The Oxford Handbook of International Environmental Law*, Oxford: Oxford University Press

Borchardt, K. (2010), *The ABC of European Union Law*, Luxembourg: Publications Office of the European Union

Brubaker, D. (1993), *Marine Pollution and International Law: Principles and Practice*, London: Belhaven Press

Crawford, J. (2012), *Brownlie's Principles of Public International Law*, 8<sup>th</sup> edition, Oxford: Oxford University Press

De la Rue, C. (1993), *Liability for Damage to the Marine Environment*, London: Lloyd's of London Press

Doussis, E. (2014), *Ηπεριβαλλοντική διακυβέρνηση σε κρίση (Environmental governance on crisis)*, Athens: Papazisis

Esmaeili, H. (2001), *The Legal Regime of Offshore Oil Rigs in International Law*, Aldershot: Ashgate Dartmouth

Fawcett, L. and Hurrell, A. (1995), *Regionalism in World Politics*, Oxford: Oxford University Press

Freeston, D. and Hay, E. (eds.) (1996), *The Precautionary Principle and International Law: The Challenge of Implementation*, Kluwer Law International

Gauci, G. (1997), *Oil Pollution at sea*, John Wiley & Sons Ltd

Gavouneli, M. (1995), *Pollution from Offshore Installations*, in International Environmental Law and Policy Series, London: Graham & Trotman, doctoral thesis Cambridge University

Kütting, G. *Global Environmental Politics, Concepts, Theories and Case Studies*, New York: Routledge

Marquez, G.G. (1970), *One Hundred Years of Solitude*, translated by Gregory Rambassa, New York: Avon Books

Ratcliffe, S. (ed.), *Oxford Essential Quotations* (2012), Oxford: Oxford University Press

Roggenkamp, M., Redgwell, C., Del Guayo, I., and Anita Rønne (eds.) (2007), *Energy Law in Europe: National, EU and International Regulation*, 2nd edition, Oxford: Oxford University Press

Parisis, I. (2015), *The Maritime Dimension of European Security: Strategies, Initiatives, Synergies, The Fletcher School-The Constantine Karamanlis Chair*

Priest, T. (2007), *The Offshore Imperative: Shell Oil's Search for Petroleum in Postwar America*, Texas: A&M Press

Sands, P. (2004), *Principles of International Environmental Law*, 2<sup>nd</sup> edition, Cambridge: Cambridge University Press

#### Articles and Publications

ACSNI (1993), *Organising for Safety-Third Report of the Human Factors Study Group of ACSNI*, London: HMSO

Bassot, E. and Debyser, A. (2014), "Setting EU Priorities, 2014-2019: The ten points of Jean-Claude Juncker's political guidelines", *EPRS*

Boromisa, A., "Energy for smart, sustainable and inclusive growth", in Samardžija, V., and Butković, H. (2010), *From the Lisbon Strategy to Europe 2020*, Zagreb: Institute for International Relations – IMO

"Better regulation essential to avoid Deepwater Horizon Europe", *ClientEarth*, 07 September 2010, Web

Brown, Ch. (1998), "International Environmental Law in the Regulation of Offshore Installations and Seabed Activities: The case for a South Pacific Regional Protocol", *AMPLJ*, Vol. 17

"BP finally seals leaking Gulf of Mexico oil well". *BBC NEWS*, 19 September 2010, Web

Cameron, P. (2012), "Liability for Catastrophic Risk in the Oil and Gas Industry", *IELR*, Vol. 6

Cox, S.J., Cheyne, A.T.J. (2000), "Assessing safety culture in offshore environments", *Safety Science*, Vol. 34

Davis, J. (ed.) (2014), "New Pact for Europe: Second Report. Towards a New Pact for Europe", *The King Baudouin Foundation, the Bertelsmann Stiftung and the European Policy Centre*

“Drill and Spill bill threat looms” (2010), *Fairplay*, Vol. 369

“Environment Action Programme to 2020”, *European Commission*, 27 August 2015, Web

European Commission-Press Release, “Energy Union: secure, sustainable, competitive, affordable energy for every European”, 25 February 2015, Web

Fanos, A. (2011), “The Regulation of Offshore Oil Spills by the Australian Petroleum Legislation and the Aftermath of the Montara and Deepwater Horizon Oil Spills”, *International Energy Law Review*, Vol. 2

“Fears on the Horizon” (2010), *Fairplay*, Vol. 369

Gao, Z. (1994), “International Petroleum Exploration and Exploitation Agreements: A Comprehensive Environmental Appraisal”, *Journal of Energy and Natural Resources*, Vol. 12, No. 240

Gavouneli, M., “Energy at sea: New Challenges over troubled waters in the Eastern Mediterranean”

-----, “Energy Installations in the Marine Environment”

-----, “Offshore Installations: A Comprehensive regime?” *MEPIELAN eBulletin*, 04 Apr. 2013. Web.

Glewwe, T. (2014), “Nuclear Power Gateway to a Sustainable Energy Sector”. *Op-Eds from ENSC230 Energy and the Environment: Economics and Policies*. Paper 50.

Hansen, H. (2009), “Distinctions in the Finer Shades of Gray: The ‘Four Circles Model’ for Maritime Security Threat Assessment” in *Lloyd’s MIU Handbook of Maritime Security*, eds. Rupert Herbert-Burns et al., Florida: Taylor&Francis

Helm, C., Sprinz, D. (2000), “Measuring the Effectiveness of International Environmental Regimes”, *Journal of Conflict Resolution*, Vol. 44, No. 5

Ioannou, C. and Emilianides, A. (2014), “The Cypriot Hydrocarbons and the European Financial Crisis”, *Journal of Energy Power Sources*, Vol. 1, No, 6

Jackson, T. and Taylor, P.J. (1992), “The Precautionary Principle and the Prevention of Marine Pollution”, *Chemistry and Ecology*, Vol. 7, No. 1-4

Jacques, P. (2011), “Marine Pollution”, in Kütting, G. *Global Environmental Politics, Concepts, Theories and Case Studies*, New York: Routledge, pp.: 123.

James, T. (2010), “The Implications of the *Deepwater Horizon* oil spill in the Gulf of Mexico”, *Library Note for the House of Lords*, UK

Kashubsky, M. (2013), “Protecting Offshore Oil and Gas Installations: Security Threats and Countervailing Measures”

Kütting, G. (2000), “Distinguishing between institutional and environmental effectiveness in international environmental agreements: the case of the Mediterranean Action Plan”, *The International Journal of Peace Studies*, Vol. 5, No. 1

Marauhn, T. (2007), “The Changing Role of the State”, in Bodansky D. - Brunnee J. - Hey E. (eds.), *The Oxford Handbook of International Environmental Law*, Oxford University Press, Oxford

McLendon, R. “Types of Offshore Rigs.” *Mother Nature Network*. 19. May 2010. Web

Mearns, K., Flin, R., Gordon, R. and Fleming, M. (1998), “Measuring safety climate on offshore installations”, *Work & Stress: An International Journal of Work, Health & Organisations*, Vol. 12, No. 3

National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (2011), *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling*, Report to the President

Nicolaidis, K. (2013), “European Democracy and Its Crisis”, *Journal of Common Market Studies*, Vol. 51, No. 2

Palmer, J., “Gulf spill’s effects ‘may not be seen for a decade’”, *BBC NEWS*, 21 February 2011, Web

Raftopoulos, E., “Sustainable Governance of Offshore Oil and gas Development in the Mediterranean: Revitalizing the Dormant Mediterranean Offshore Protocol” *MEPIELAN eBulletin*, 19 Aug. 2010. Web

Sciicluna, N. (2011), “A legal discussion on civil liability for oil pollution damage resulting from offshore oil rigs in the light of the recent Deepwater Horizon incident”, *UNEP/MAP*, 2013, Athens

Sorokin, V. (2011), “Challenges of the G-20 Global Marine Environment Protection Working Group”, *International Regulators Forum Offshore Safety Summit Conference*

Trevisanut, S. “*Foreign Investments in the Offshore Energy Industry: Investment Protection v. Energy Security v. Protection of the Marine Environment*”

Valman, M. (2013), “Institutional Stability and change in the Baltic Sea: 30 years of issues, crises and solutions”, *Marine Policy*, Vol. 38

Vinogradov, S. (2013), “The Impact of Deepwater Horizon: The Evolving International Legal Regime for Offshore Accidental Pollution, Prevention, Preparedness, and Response”, *Ocean Development and International Law*, Vol.44, No. 4

## Primary Sources, Reports and Documents

*Agenda 21*, 1992

*Case Concerning the Gabčíkovo-Nagymaros Project (Hungary vs. Slovakia)*, 1997

*Communication from the Commission to the European Parliament and the Council, Facing the challenge of the safety of offshore oil and gas activities*, 2010

*Communication from the Commission to the Spring European Council, Integrated Guidelines for Growth and Jobs (2008-2010)*, 2007

*Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention)*, 1998

*Convention on Civil Liability for Oil Pollution Damage from Exploration and Exploitation of Sea Bed Mineral Resources (CLEE Convention)*, 1977

*Convention on the Protection of the Marine Environment of the Baltic Sea (Helsinki Convention)*, 1992

*Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention)*, 1992

*Corfu Channel Case (UK vs. Albania)*, 1949

*Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling*, National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, Report to the President, 2011

*Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004*

*Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013*

*Draft Convention on Offshore Mobile Craft*, Report to the Legal Committee from the International Sub-Committee of the CMI, 1998

*European Parliament Resolution of 14 March 2013 on the Energy Roadmap 2050*

*Geneva Conventions*, 1949 and *Additional Protocols*, 1977.

*Geneva Convention on the Territorial Sea (GCTS)*, 1958

*International Convention on Oil Pollution, Preparedness, Response and Cooperation (OPRC)*, 1990

*International Convention for the Prevention of Pollution by Ships (MARPOL), 1973/1978*

*International Convention for the Prevention of Pollution of the Sea by Oil, 1954.*

*International Maritime Organization Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1989*

*IMO Doc. A. 671/16, Safety Zones and Safety of Navigation Around Offshore Installations and Structures, 1989*

*Lake Lanoux Arbitration (France vs. Spain), 1957*

*New Pact for Europe (2015), General Observations and Main Conclusions of NPE Events, The King Baudouin Foundation, the Bertelsmann Stiftung and the European Policy Centre*

*North Sea Continental Shelf Judgment, 1969*

*Nuclear Weapons Advisory Opinion, 1996*

*Oceans and the Law of the Sea, Report of the Secretary-General, doc. A/59/62/Add., 18 August 2004*

*Offshore Pollution Liability Agreement (OPOL), 1974*

*Presidential Proclamation No. 5928, 27 December 1988, 54 FR 777.*

*Proposal for a Regulation of the European Parliament and of the Council on Safety of Offshore Oil and Gas Protection, Exploration and Production Activities, 2011*

*Report of the UN Conference on Sustainable Development, Rio de Janeiro, UN Doc. A/CONF.216/16, 20-22 June 2012*

*Statute of the International Court of Justice, 1945*

*Stockholm Declaration of the United Nations Conference on the Human Environment, 1972*

*Tanker Owners Voluntary Agreement concerning Liability for Oil Pollution (TOVALOP), 1968.*

*The Charter of the United Nations, 1945*

*The Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (Mediterranean Offshore Protocol), 1994*

*Trail Smelter Arbitration (USA vs. Canada), 1941*



*Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community, 2007*

*United Nations Convention on the Law of the Sea (UNCLOS), 1982*

*United Nations Environment Programme Guidelines Concerning the Environment Related to Offshore Mining and Drilling within the Limits of National Jurisdiction, 1982*

*U.S. Presidential Proclamation No 2667, Policy of the United States with Respect to the Natural Resources of the Subsoil and the Seabed of the Continental Shelf, 1945*

*World Bank Group Environmental, Health, and Safety Guidelines for Offshore Oil and Gas Development, 2007*