



Challenges of the Environmental Damage legal Framework in the Offshore Oil and Gas Industry

Mohammad Ali Baghersad^{1*} | Parviz Savarai²

1. Ph.D. Candidate in Oil and Gas Law, Shahid Beheshti University, Tehran, Iran
2. Associate Professor, Shahid Beheshti University, Tehran, Iran

* Corresponding Author Email: baghersad_ali@yahoo.com

Extended Abstract

In recent decades, the world has seen a significant increase in the development of offshore oil and gas activities. Due to the increase in energy demand and technological innovations, drilling activities have expanded and moved to deep and ultra-deep areas. Oil and gas exploration and extraction processes could have various environmental effects and be variable, depending on the stage of the process, the complexity and volume of the project, the nature and sensitivity of the surrounding environment, the effectiveness of the plan and program, pollution prevention methods and control and impact reduction techniques. Of course, many efforts have been made to develop management systems, operational methods, and engineering technology to reduce environmental effects and have significantly reduced the amount of environmental damage. The activities related to exploration and extraction can leave various human, social, economic, cultural effects and effects on the atmosphere, aquatic life, land animals, and the entire biosphere. For this reason and the concern of environmental protection, researchers have conducted research in this field. According to some researchers, as a result of offshore drilling operations, hundreds of compounds and substances are extracted and released into the sea, which causes environmental pollution. At the same time, there is no specific system for compensation for environmental damage in this regard. According to some others, taking into account the potentially destructive potential of oil and gas activities in marine environments, comprehensive environmental laws are needed to protect these environments, and these laws should be formulated and implemented at the national, regional, and international levels. and be protected by the national laws of countries. According to some others, compiling environmental damage indicators, in addition to preventing and preventing the occurrence of environmental pollution, helps to ensure the international responsibility of governments in the occurrence of environmental damage, therefore, investigating and analyzing the possibility of compiling environmental damage indicators in international treaties for Proving the international responsibility of governments is necessary and inevitable. Some researchers believe that if the



government is at fault in offshore drilling, the government itself should be held responsible to compensate for the damage caused to the environment; in any case, the damages caused to the environment of the seas are not left uncompensated and its damages are not imposed on the body of the international community. Some other researchers also believe that holding individuals responsible at the international level for harmful activities that cause offshore pollution prevents the victims from being compensated. What is considered in the current research, as suggested in previous research, is to describe the dangers of the existing situation and explain the gaps in the existing legal framework. Today, almost one-third of the oil and one-fourth of the natural gas consumed in the world comes from undersea areas. As if there is no end to this acceleration for offshore oil and gas exploration and exploitation; Forecasts indicate continued production growth in traditional offshore areas (such as West Africa and the Gulf of Mexico) and significant development in new areas such as East Africa and the Eastern Mediterranean. More and deeper drilling means increasing threats to the environment, depletion of natural resources, and potential negative consequences for human activities dependent on these ecosystems. Recent incidents on offshore platforms have shown that the environmental risks of offshore drilling activities are relevant to all regions of the world and all types of companies. This transboundary nature and the effects of these incidents have sparked debates about the desirability or desirability of the current international regulatory framework for offshore oil and gas activities. In this regard, it is clear that there are regulatory gaps both in terms of the safety of offshore drilling activities and the responsibility and compensation in case of accidents. Accordingly, in this research, the challenges of the legal framework of environmental damage in the offshore oil and gas industry have been investigated. When it comes to compensation and civil liability for offshore oil pollution damage, there has been no internationally approved convention that specifically provides a framework for issues related to this type of liability, although the Convention on the Law of the Sea includes some general provisions on the obligations of states in Regulation of issues related to the offshore industry. Regional sea agreements also mainly address the specifics of each sea area and focus mainly on general principles such as the use of the best available technologies and techniques and polluting matters. The main objective of these regional programs is to establish cooperation between the parties for the benefit of certain maritime areas. These agreements merely contain very general and sometimes vague provisions on the establishment of liability and compensation systems for offshore pollution. Regional conventions and arrangements are not sufficient to assess the performance of different legal regimes in offshore activities. Therefore, it is necessary to examine the national laws of governments regarding offshore activities, which should be done in future research.

Keywords: Oil and Gas, Offshore, Liability, Damage, Environment.



References

Books

1. Buga, I. (2018). '*Modification of Treaties by Subsequent Practice*', Oxford: Oxford University Press.
2. Frank, V. (2007). '*the European Community and Marine Environmental Protection in the International Law of the Sea: Implementing Global Obligations at the Regional Level*', London: Martinus Nijhoff.
3. Harrison, J. (2017). '*Saving the Oceans through Law: The International Legal Framework for the Protection of the Marine Environment*', Oxford: Oxford University Press.
4. Homer, (2021). '*Iliad and Odyssey*', translated by Saeed Nafisi, Tehran: Hermes. [In Persian]
5. Lyons, Y. (2012). '*Transboundary Pollution from Offshore Oil and Gas Activities in the Seas of Southeast Asia*' in Warner, R. and Marsdenm, S. (eds), '*Transboundary Environmental Governance in Inland, Coastal and Marine Areas*', London: Ashgate.
6. Scovazzi Tullio., "*Maritime accidents with particular emphasis on liability and compensation for damage from the exploitation of mineral resources of the seabed*", In de Guttry, A. et al. (2012). (Eds), '*International disaster response law*', Asser Press, The Hague, The Netherlands.
7. Redgwell, C. and Boyle, A. (2009). '*International Law & the Environment*', 3rd edition, (Oxford: Oxford University Press.
8. Roach, A. (2013). '*International Standards for Offshore Drilling*' in Nordquist, M. et al (eds), '*The Regulation of Continental Shelf Development: Rethinking International Standards*', London: Brill.

Articles

9. Abbasi Tabrizi, F. (2021). Evolutions in International Law on Compensation for Oil Pollution. *Journal of Law and Political Studies*, 1(4), 330-344. [In Persian] Doi.org/10.22034/jlps.2021.4.6
10. Cameron, P. (2012). "Liability for catastrophic risk in the oil and gas industry", *International Energy Law Review*, 6(3), 207-219.
11. Chabason L. (2011). "Offshore oil exploitation: a new frontier for international environmental law", *IDDRI; SciencesPO*, Working Paper N°11/11, 3-9; available at: https://www.iddri.org/sites/default/files/import/publications/wp-1111_chabason_offshore.pdf (accessed by 3/3/2023).
12. Chen, L. (2016). 'Realizing the Precautionary Principle in Due Diligence', *Dalhousie Journal of Legal Studies*, 25(1), 1-23.
13. Dupuy, P. M. (1999). 'Reviewing the Difficulties of Codification: On Ago's

- Classification of Obligations of Means and Obligations of Result in Relation to State Responsibility', *European Journal of International Law*, 10(1), 371-385.
14. Ebrahim Fathabadi, H. (2011). "International treaties regarding the prevention of pollution of marine environments due to offshore oil and gas exploration and production activities". *Scientific monthly journal of oil and gas exploration and production*. 8(2), 23-33. [In Persian]
 15. Ghorbani, M. and Bashiri, M. (2014). 'Evaluation of environmental damage to the marine environment due to oil operations', *Journal of Scientific Monthly of Oil and Gas Exploration and Production*, 11(3), 11-17. [In Persian]
 16. Harrop, S. R. and Pritchard, D. J. (2011). 'A Hard Instrument Goes Soft: The Implications of the Convention on Biological Diversity on Biological Diversity's Current Trajectory', *Global Environmental Change*, 21(3), 474-480.
 17. Hoseini, S. M. and Rahaei, S. (2024). The concept and nature of "Due diligence" in international law. *Jurisprudence and Islamic Law*, 4 (12), 44-73. [In Persian]
 18. IJlstra, T. (1990). 'Pollution from Offshore Installations: The Kuwait Protocol', *Marine Pollution Bulletin*, 10(8), 21-37.
 19. Kashubsky, M. (2006). 'Marine Pollution from the Offshore Oil and Gas Industry: Review of Major Conventions and Russian Law, Part 1' 151 *Maritime Studies* 15(1), 63-79
 20. Lyons, Y. (2011). 'Offshore Oil and Gas in the SCS and the Protection of the Marine Environment', *Centre for International Law*, National University of Singapore, Available at: https://cil.nus.edu.sg/wp-content/uploads/2010/10/OG_SCS_CIL-Part206oct2011-1.pdf (accessed by 3/3/2023).
 21. Plakokefalos, I. (2013). 'Prevention Obligations in International Environmental Law', Yearbook of International Environmental Law, *Amsterdam Law School Research Paper*, No. 37, Amsterdam Center for International Law, 1-20. Available at SSRN: <https://ssrn.com/abstract=2290211>
 22. Rashidi, M. Rastegar, A. and Mashhadi, A. (2021). The Source of the Obligation to Transboundary Environmental Impact Assessment in Turkey Gap Project. *Jurisprudence and Islamic Law*, 12(22), 35-66. [In Persian] Doi: 10.22034/law.2021.12956
 23. Rochette, J. Wemaëre, M. Chabason, L. Callet, S. (2014). Seeing beyond the horizon for deepwater oil and gas: strengthening the international regulation of offshore exploration and exploitation, *IDDRI, SciencesPO*, Study N°01/14, 1-11. available at: https://www.iddri.org/sites/default/files/import/publications/-st0114_jr-et-al._offshore-en.pdf (accessed by 3/3/2023).
 24. Salehi, J. and Al Kajbaf, H. (2020). 'The international responsibility of the

- sponsoring state in exploiting the resources of the region in the light of the requirements of international environmental law', *Environmental Science and Technology*, 23(4), 39-51. [In Persian] Doi: 10.30495/JEST.2020.36357.4296
25. Shiravi, A. and Shabani, F. (2018). The International Regime for Liability for Pollution Arising from Offshore Drilling Activities. *Public Law Studies Quarterly*, 48(2), 23-69. [In Persian] Doi: 10.22059/jpls.2017.236135.1530
26. Tanaka, Y. (2017). 'Costa Rica v Nicaragua and Nicaragua v Costa Rica: Some Reflections on the Obligation to Conduct an Environmental Impact Assessment', *Review of European, Comparative and International Environmental Law*, 26(7), 42-57.
27. Trouwborst, A. et al., (2017). 'International Wildlife Law: Understanding and Enhancing its Role in Conservation', *BioScience*, 6(7), 19-27.
28. Young, M. A. Sullivan, R. and Andrés, S. (2015). 'Evolution through the Duty to Cooperate: Implications of the Whaling Case at the International Court of Justice', *Melbourne Journal of International Law* 16(1), 32-61.

Regulations

29. United Nations Convention on the Law of the Sea
30. Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Advisory Opinion) (2011) ITLOS Rep.
31. International Law Commission (ILC) 'Draft Articles on Prevention of Transboundary Harm from Hazardous Activities' UN Doc A/56/10 (11 May 2001).
32. International Law Association (ILA) Study Group on Due Diligence in International Law, 'First Report' (7 March 2014).
33. Nicaragua v Costa Rica (Judgment) (2015) ICJ Rep 665 (Costa Rica v Nicaragua cases), Separate Opinion of Judge Dugard.
34. Pulp Mills on the River Uruguay (Argentina v Uruguay) (Judgment) (2010) ICJ Rep 14 para 204 (Pulp Mills).
35. Request for an Advisory Opinion Submitted by the Sub-regional Fisheries Commission (SRFC) (Advisory Opinion) (2015) ITLOS Rep 4
36. South China Sea Arbitration (Philippines v China) (12 July 2016) (PCA Case No 2013-19) ICGJ 495.
37. ILA Study Group on Due Diligence in International Law (2016) Second Report.
38. International Law Commission (ILC) 'Draft Articles on Prevention of Transboundary Harm from Hazardous Activities' UN Doc A/56/10 (11 May 2001).
39. The 1990 International Convention on Oil Pollution Preparedness, Response and Co-operation.



40. Convention for the Prevention of Pollution from Ships, Annex I.
41. the 1992 Convention on Biological Diversity
42. the Convention on the Conservation of Migratory Species
43. the Convention on Wetlands of International Importance (Ramsar Convention)
44. the International Convention for the Regulation of Whaling
45. Code for the Construction and Equipment of Mobile Offshore Drilling Units
46. IRENA, 'New IRENA Platform Supports Renewable Energy Innovation, Quality and Collaboration' (6 July 2015).]
47. IMO, 'Guidelines for the Application of the Revised MARPOL Annex I Requirements to Floating, Production, Storage and Offloading Facilities (FPSOs) and Floating Storage Units (FSUs)' Resolution MEPC.139(53) (22 July 2005).
48. The MOX Plant Case (Ireland v. United Kingdom) 2001.
49. Convention for the Protection of the Marine Environment of the North-East Atlantic (adopted 22 September 1992, entered into force 25 March 1998) 2354 UNTS 67 (OSPAR) Appendix I.