



## Environmental Provisions in Iraqi Kurdistan Region Production Sharing Contracts

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الأحكام البيئية في عقود مشاركة الإنتاج لإقليم كردستان العراق

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### Extract

Environment pollution is a serious issue that always countries pay attention to and try continuously to address within national legislations despite signing several international conventions on this issue. The past two decades have witnessed a considerable attraction of international oil companies to invest in the oil and gas industry and start petroleum activities in the Kurdistan Region of Iraq. Consequently, its environment has been faced significant damages. The main aim of this study is to evaluate and analyse environmental provisions and discuss the extent of their effectiveness in the Kurdistan Region's production sharing contracts. Therefore, this study by using some useful sources and pursuant to relevant legislation has tried to answer the research questions. The research method adopted in this study is a qualitative comparative analysis, primary and secondary sources are part of the data collection. Finally, the principal conclusion from the study is that there are some flaws and loopholes in the current environmental provisions of Kurdistan Region's production sharing contracts and they need revision to be more effective. **Key words:** Environmental Provisions, Kurdistan Region of Iraq and Production Sharing Contracts.

### ملخص

يعد تلوث البيئة مسألة جدية تهتم بها الدول دائماً وتحاول باستمرار معالجتها في التشريعات الوطنية على الرغم من التوقيع على العديد من الاتفاقيات الدولية بشأن هذه المسألة. شهد العقدان الماضيان جاذبية كبيرة لشركات النفط العالمية للاستثمار في صناعة النفط والغاز وبدء الأنشطة البترولية في إقليم كردستان العراق؛ ونتيجة لذلك، تعرضت بيئتها لأضرار جسيمة. الهدف الرئيسي من هذه الدراسة هو تقييم وتحليل الأحكام البيئية ومناقشة مدى تأثيرها في عقود مشاركة الإنتاج في إقليم كوردستان. لذلك فإن هذه الدراسة، باستخدام بعض المصادر المفيدة وعملاً بالتشريعات ذات الصلة، قد حاولت الإجابة على أسئلة البحث. منهج البحث المعتمد في هذه الدراسة هو التحليل المقارن النوعي، والمصادر الأولية والثانوية هي جزء من جمع البيانات. أخيراً، الاستنتاج الرئيسي من الدراسة هو

أن هناك بعض العيوب والثغرات في الأحكام البيئية الحالية لعقود مشاركة الإنتاج في إقليم كردستان وهي بحاجة إلى مراجعة لتكون أكثر فعالية.  
الكلمات المفتاحية: الأحكام البيئية ، إقليم كردستان العراق ، عقود مشاركة الإنتاج

1. **Introduction** : The environmental dimensions of oil and gas projects have attracted public attention at both national and international levels. At the international level, many treaties, declarations, guidelines and standards have been formed that focus on environmental issues. At the national level, the environmental dimensions of economic activities are stipulated in the relevant laws and regulations of environmental institutions within the framework of mandatory instructions and criteria.

From an economic point of view, oil and gas projects are significant for host governments and International Oil Companies (IOCs). Because of their nature, oil and gas projects may cause pollution in land, air, and water. Pollution and environmental degradation have significant economic consequences for both sides of oil and gas projects. Environmental pollution imposes costs on the project and damages the commercial credibility of large oil companies; to the extent that most IOCs are required to comply with environmental standards and regulations. Thus, the existence of a comprehensive environmental strategy is a necessity to be designed at different levels of global, regional, and national, even at the contractual and project levels.

The oil and gas industry in the Kurdistan Region of Iraq (KRI) has developed over the past two decades. Since 2003, Kurdistan Regional Government (KRG) has signed about sixty (60)<sup>1</sup> oil and gas contracts with IOCs<sup>2</sup>. Thus, several IOCs have engaged in oil and gas exploration and production in the Kurdistan Region. As oil and gas contracts are long-term contracts,<sup>3</sup> during the fulfillment of different stages of these contracts environmental problems may arise. Therefore, host governments and IOCs try to insert effective and appropriate environmental provisions in their contracts.

**1.1 Research Problem** :In the oil and gas industry, often, the environment faces pollution within the petroleum operations. The Kurdistan region, like everywhere, faces environmental pollution during its petroleum operations. Therefore, to protect the environment against pollution during oil and gas

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<sup>1</sup> R S. Salih and A Yamulki, 'Reforms Feasibility in Kurdistan Region Petroleum Contracts, Triggered by the New Regional Blocks Divisions' (2020) 11 International Journal of Business and Social Science 35.

<sup>2</sup> Kurdistan Regional Government, Ministry of Natural Resources, Contracts < <https://gov.krd/mnr-en/publications/contracts/>> accessed 1 October 2021.

<sup>3</sup> M S. Salih and A Yamulki, 'Force Majeure and Hardship Clauses in the Iraqi Kurdistan Region Oil and Gas Contracts: A Comparative Study'(2020) 11 International Journal of Business and Social Science 102.



projects, a suitable legal framework and effective environmental provisions in oil and gas contracts are vital. The existence of some flaws in environmental provisions of KRI's PSCs is the research problem and discovering the extent of effectiveness of these provisions is the main focus of the study.

**1.2 Aim of the Study** :This study aims to discover the extent of effectiveness of environmental provisions in KRI's PSCs. Its objective is to critically analyse and evaluate environmental provisions in KRI's oil and gas contracts and compare them to some other countries' PSC. Investigating applicable legislation in the Kurdistan region to protect the environment is another objective in this study. To achieve the described aim, the study attempts to answer the following questions:

- 1- How the Kurdistan Region's environment is protected in oil and gas projects under KRI's legislation?
- 2- To what extent environmental provisions are effective and appropriate in KRI's PSCs? What are the main flaws and loopholes in these provisions?

**1.3 Significance of the Study** :Environmental protection is the main concern of the contracting parties in oil and gas contracts. The lack of previous studies on analysing and evaluating environmental provisions in KRI's PSCs and comparing them with some countries' PSCs is what exactly gives importance to this study. The study is useful for academics and students in law colleges. Its findings and recommendations could be beneficial for the ministry of natural resources in the Kurdistan Region.

**1.4 Methodology** :The research method adopted in this study is qualitative comparative analysis. The black letter approach is used to answer the research questions by using legal materials including the Kurdistan Oil and Gas Law 2007, the Kurdistan Environment Protection and Improvement Law 2008 and KRI's PSCs. The socio-legal approach is also used in the study because it is significant to study environmental pollution in its social context. Moreover, it is identified that environmental provisions in KRI's PSCs could have a significant impact on the Kurdistan region. In this study, primary and secondary materials are part of the data collection. Thus, laws, contracts, books, academic journals are used for collecting data to achieve the aim of this study.

**1.5 Literature Review** :There are several previous studies about environmental protection in KRI's Oil and gas industry. Al-Saleem in his Ph.D. thesis focused on the regulatory framework that governs the sustainable development of oil and gas in Iraq with reference to the Kurdistan Region. He attempted to explore how the concept of sustainable development can be transposed into and implemented in Iraqi national law regarding oil and gas resources. Al-Saleem proposed an effective national framework

pursuant to international legislative regulations in the subject of environmentally sustainable development.<sup>1</sup> Othman in a study explained the responsibility of oil companies to protect the environment within oil and gas operations in the Kurdistan region. He stated that because of inadequate environmental legislation and the lack of enforcing the applicable laws, oil companies do not take necessary measures to protect and provide remedies for any environmental damage.<sup>2</sup>

In a useful study, Abdulrahman reviewed the relevant laws to the environment in the Kurdistan region and evaluated them against the international principles of environmental policies. He found that laws have incompatible with the principles to varying degrees.<sup>3</sup> In another study, Riyadh and others argued the nature of corporate social responsibility (CSR) and its positive and negative impacts. They examined whether the oil and gas corporation is contributing positively to the Kurdistan Region of Iraq's environment and society.<sup>4</sup>

As indicated, the previous studies to some extent have explained and investigated environment protection in the Kurdistan region's oil and gas sector. However, no existing research analyses and compares provisions of environment protection in KRI's PSCs to other countries' PSCs to discover the extent of effectiveness and appropriateness of these provisions. Such provisions need more analysis and particular considerations should be given in drafting them.

**1.6 Structure of the Study :**The study is divided into six main sections, including this introductory section. The second section defines environmental pollution and generally describes the sources of environmental pollution in the oil and gas sector, which are environmental pollution of upstream, midstream and downstream activities. Moreover, it illustrates two historical disasters which caused huge environmental pollution in the oil and gas industry. Section three begins with an attempt to evaluate the legal

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<sup>1</sup> K I. Al-Saleem, 'The Legal Framework for the Sustainable Development of Iraqi Oil and Gas: A Study in Particular Reference to the Kurdistan Region, and with Special Emphasis on the New Delhi Declaration' (DPhil thesis, University of Portsmouth 2015).

<sup>2</sup> A M S. Othman, 'Legal and Ethical Obligations of Oil Companies in Preserving Natural Environment; a Case Study of the Kurdistan Regional Government's Production Sharing Contracts' (2016) 2 Journal of University of Human Development 309.

<sup>3</sup> S A. Abdulrahman, 'Environmental law of the Kurdistan Region, and its compatibility with international principles of environmental policies' (2020) 9 Technium Social Sciences Journal 217.

<sup>4</sup> H A Riyadh and others, 'A Portrait of Corporate Social Responsibility in an Oil and Gas Corporation in the Kurdistan Region of Iraq' (2019) 118 Restaurant Business 218

framework of the Kurdistan Region oil and gas sector to protect the environment against pollution. Therefore, this section analyses environmental protection responsibility in the Kurdistan Environment Protection and Improvement Law and the Kurdistan Oil and Gas Law. Section four focuses on drafting environmental provisions in oil and gas contracts. It explains the general principles of environmental law and provides the most important consideration for drafting environmental provisions in oil and gas contracts. Section five analyses and evaluates environmental protection provisions in KRI's PSCs and compares them with some countries' PSCs. Finally, section six summarises the significant findings and recommendations of the study.

2. **Environmental Pollution in Oil and Gas Industry** :Environmental Pollution is defined as “the discharge of material, in any physical state, that is dangerous to the environment or human health.”<sup>1</sup> Another definition of environmental pollution is “the alteration of our surrounding in an unfavourable way wholly or largely as a by-product of man’s actions, through direct or indirect effects of changes in energy patterns, radiation levels, chemical and physical constitution and abundances of organisms.”<sup>2</sup> The Environment Protection and Improvement Law of the Kurdistan Region of Iraq also defines environment pollution as “[a]ny direct or indirect changes in the environmental components or properties that lead to its damage and distort its normal balance.”<sup>3</sup> However, a clear and comprehensive definition for environment pollution is that “any discharge of material or energy into water, land, or air that causes or may cause acute (short-term) or chronic (long-term) detriment to the Earth's ecological balance or that lowers the quality of life.”<sup>4</sup>

In the oil and gas industry, there are various activities, which must take place to extract oil and gas resources from the ground and transform them into saleable oil and gas. The process of transporting these resources to the final destination is not simple and it requires several activities.<sup>5</sup> Garcí'a-

<sup>1</sup> J Corbett, ‘Environment Pollution’ < [www.encyclopedia.com/environment/energy-government-anddefense-magazines/environmental-pollution](http://www.encyclopedia.com/environment/energy-government-anddefense-magazines/environmental-pollution) > accessed 1 October 2021.

<sup>2</sup> L K Singh, *Ecology Environment and Tourism* (Isha Book, New Delhi 2008) 1.

<sup>3</sup> Environment Protection and Improvement Law of The Kurdistan Region of Iraq No. (8) of 2008, Art. (1)9.

<sup>4</sup> A A O Coker, ‘Environmental Pollution: Types, Causes, Impacts and management for the Health and Socio-Economic Well-Being of Nigeria’ < [http://tandice-bsolutions.com/rokdownloads/National\\_Conference\\_on\\_the\\_Environment/ProfAkinwaleCoker1.pdf](http://tandice-bsolutions.com/rokdownloads/National_Conference_on_the_Environment/ProfAkinwaleCoker1.pdf) > accessed 2 October 2021.

<sup>5</sup> R S Salih, ‘Legal Protection for International Contractual Investors Against Political Risk in the Iraqi Kurdistan Oil and Gas Industry’ Master Thesis (University of Wolverhampton, 2013) 67.

Castrillo'n,<sup>1</sup> same as Inkpen and Moffett,<sup>2</sup> states that oil and gas business activities are divided into three main segments: upstream, midstream and downstream. Upstream activities include exploration, development and production; midstream activities comprise storing, trading and transporting oil and gas; downstream activities involve oil refining, marketing and petrochemical production. According to the Kurdistan Oil and Gas Law "Petroleum Operations: activities including prospecting, exploration for, development, production, marketing, transportation, refining, storage, sale or export of Petroleum; or construction, installation or operation of any structures, facilities or installations for the transportation, refining, storage, and export of Petroleum, or decommissioning or removal of any such structure, facility or installation."<sup>3</sup> Almost all of the mentioned activities may harm the environment and pollute it. Moreover, More than 2500 refined products, including liquefied petroleum gas, gasoline, kerosene, aviation fuel, diesel fuel, fuel oils, lubricants, and feedstocks for the petrochemical industry are the direct results of these activities.<sup>4</sup> Several accidents caused environmental pollution in oil and gas sector, among them the Exxon Valdez oil spill and the Deepwater Horizon oil spill will be illustrated.

In 1989, Exxon the oil company had an oil carrying ship called the Exxon Valdez that was carrying over 53,094,510 gallons of oil which hit a reef in Alaska and spilled 11 million gallons of its load into the Pacific Ocean. This accident stretched down 470 miles south of the actual location and harmed more than 9,000 miles of shoreline. The company spent 2.1 billion dollars over 4 years before they stopped their efforts, so not all the beaches were cleaned up. The company was taken to court by the federal government for criminal and civil cases. The outcome of this resulted in the government prohibiting this ship from returning to the Prince William Sound (site of oil spill) and has led Exxon to create oil spill prevention material.<sup>5</sup> According to *Exxon Shipping Co. v. Baker (2008)*<sup>6</sup> finally, in 2008, the U. S. Supreme Court held that the Exxon Company had to pay \$500 million in punitive damages.

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<sup>1</sup> C O Garcí'a-Castrillo'n, 'Reflections on the Law Applicable to International Oil Contracts' (2013) 6 Journal of World Energy Law and Business 129.

<sup>2</sup> A Inkpen and M H Moffett, *The Global Oil & Gas Industry: Management, Strategy & Finance* (Pennwell, Tulsa, Okla 2011) 21.

<sup>3</sup> Oil and Gas Law of the Kurdistan Region No. (28) of 2007, Art. (1)18.

<sup>4</sup> G S Cholakov, 'Control of pollution in petroleum industry' (2010) 3 Pollution Control Technologies 1.

<sup>5</sup>The Editors of Encyclopedia Britannica, 'Exxon Valdez Oil Spill' <<https://www.britannica.com/event/>> accessed 30 October 2021.

<sup>6</sup> *Exxon Shipping Co v Baker* [2008] 554 U. S. 471, 128 S. Ct. 2605.



The Deepwater Horizon (Gulf of Mexico) is another major disaster in the oil and gas industry. In 2010, the Deepwater Horizon oil rig in the Macondo Prospect in the Gulf of Mexico exploded and killed 11 workers on the Deepwater Horizon. This disaster is one of the largest oil spills in the history of marine oil drilling operations, it spewed 4 million barrels of oil into the Gulf of Mexico over 87 days. The United States in District Court sued BP Exploration & Production and several co-defendants alleged to be accountable for the spill.<sup>1</sup> According to the case of *United States v. BP Exploration & Prod., Inc. (In re Oil Spill by the Oil Rig "Deepwater Horizon")*, BP, Transocean and Halliburton are liable according to the general maritime law for the blowout, explosion, and oil spill. The fault is apportioned as follows: BP: 67% Transocean: 30% Halliburton: 3%.<sup>2</sup>

An economic, political, and legal nightmare resulted from the Deepwater Horizon accident. On April 4, 2016, it was to a great extent settled when a Federal District judge approved the highest environmental damage settlement \$20.8 billion within United States history. Under the Oil Pollution Act AND the Clean Water Act, the settlement terminated all civil and criminal penalty claims against the rig's owners and operators— BP, Anadarko, Transocean and Halliburton. Moreover, it contained economic damage claims submitted by the five Gulf States and their local governments.<sup>3</sup>

### 3. Environmental Protection under the Kurdistan Region's Legislation

As mentioned earlier, the oil and gas sector's activities may negatively impact the environment and pollute it in many ways. Legal frameworks are essential to determine the responsibility of environmental pollution and protect the environment against pollution, in national laws. This section attempts to answer the question of, How the Kurdistan Region's environment is protected in oil and gas projects under KRI's legislation? It aims to determine the responsibility in environmental pollution under the Kurdistan legislation, therefore it deals with enforced legislation in the Kurdistan Region.

Any government should protect its environment and its citizens' health. Under the Iraqi constitution of 2005, every individual has the right to live in safe environmental conditions and the State shall undertake the protection

<sup>1</sup> EPA United States Environmental Protection Agency, Environment 'Deepwater Horizon – BP Gulf of Mexico Oil Spill' <<https://www.epa.gov/enforcement/deepwater-horizon->> accessed 15 November 2021

<sup>2</sup> *United States v. BP Exploration & Prod., Inc. (In re Oil Spill by the Oil Rig "Deepwater Horizon")*, 21 F. Supp. 3d 657 (E.D. La. 2014).

<sup>3</sup> NOAA National Oceanic and Atmospheric Administration, U.S. Department of Commerce 'Deepwater Horizon Oil Spill Settlements: Where the Money Went' <<https://www.noaa.gov/explainers/deepwater-horizon-oil-spill-settlements-where-money-went>> accessed 16 November 2021



and preservation of the environment and its biological diversity.<sup>1</sup> In addition, in Kurdistan, there are several legislation that protect environment and determine responsibility of environment pollution as follow:

**3. 1 Responsibility of Environmental Protection under Kurdistan Environment Protection and Improvement Law No. 8 / 2008 :**The Kurdistan Region Law of Environmental Protection and Improvement was issued in 2008/ No 8. It regulates environmental matters such as the protection of water, soil, air and biodiversity, and applies to oil and gas operations. In 2010, the Law of the independent Environmental Protection and Improvement Board No. 3 was issued and an independent Environmental Protection and Improvement Board was established in Kurdistan, which replaced the Environmental Protection and Improvement Council and has assumed the oversight and supervisory role for the enforcement of Law No. 8/2008.

In addition to specific obligations related to standards for the protection of water, soil, air and biodiversity, any person conducting any activity that has an environmental impact must obtain prior approval from the Environmental Protection and Improvement Board.

The Law obligated that: Any person normal or moral, general, specific, mixed, or any agency, after execution of this law, perform an activity affects on the environment, must prepare a study to assess the environmental impact of activities and projects that will be constructed, then send it to the ...[board] in order to make a convenient decision about it, in which the study must include the following:

First: Evaluation of the positive and negative effects of the project, establishment or factory on the environment.

Second: Suggested means to prevent and treat the causes of pollution, in which attains the engagement to the environmental instructions and controls.

Third: The probable and emergency pollution states and the reservations that must be carried out.

Fourth: Possible substitutes for using more clean environmental techniques.

Fifth: Minimizing, recycling and reusing the wastes.

Sixth: Assessing the cost of environmental interest and impairment that have been produced by the projects.<sup>2</sup>

Additionally, the law obligates the board to observe the institutions, projects, establishments and different activities, to determine the extent to which they

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<sup>1</sup> The Iraqi Constitution (2005), Art. (33) first and second.

<sup>2</sup> Environment Protection and Improvement Law of The Kurdistan Region of Iraq No. (8) of 2008, Art.(12).





committed to the specifications, standards and measurements, which depended on the protection of the environment according to the rules of this law.<sup>1</sup> Under chapter eight, the law determines the responsibility and compensation of environmental damages, which states that:

First: Any one who causes environmental impairment, by his own action, negligence, or by the action of whom are under his care, observation, or control from persons or followers, or by dissenting the laws or regulations and instructions is responsible, and he is obliged to compensate, remove the impairment and return the state as it was before, during a period of time limited by the Ministry and according to conditions putted by it. In the case of neglecting or do not submitting to perform it, the Ministry after notifying him, can take over the procedures and action to remove the impairment and the causer tolerates all the loss for this purpose, in addition to the administrative costs with respect to the following standards:

1-Dangerous degree for types of polluted substances.

2-The effect of pollution on the environment now and in the future.

Second: The causative's responsibility on the impairments that resulted from dissention of application the rules of clause (First) of this Article is obligatory.

Third: Applying the laws of Iraqi civilian about the responsibility rules in everything when there is no text forenamed about this law.

Fourth: The organization of civil society and persons whom have been impaired, can process lawsuit according to the rules of clause (first) of this article.

Fifth: Consigning pollution removing costs into the box when consummated to be used for pollution removing.<sup>2</sup>

Non-compliance with the obligations of the Environment Law may result in no less than one month of imprisonment or fines of between 150,000 and 200 million Iraqi dinars, or both. In addition to the specific penalties provided for in the Law, anyone who causes environmental damage shall be subject to civil compensation and responsibility for removing or correcting such damages.<sup>3</sup>

<sup>1</sup> Environment Protection and Improvement Law of The Kurdistan Region of Iraq No. (8) of 2008, Art. (16).

<sup>2</sup> Environment Protection and Improvement Law of The Kurdistan Region of Iraq No. (8) of 2008, Art.(21).

<sup>3</sup> Environment Protection and Improvement Law of The Kurdistan Region of Iraq No. (8) of 2008, Art. (41and 42).

### **3. 2 Responsibility of Environmental Protection under the Kurdistan Oil and Gas Law No. 22/ 2007**

The Kurdistan Oil and Gas Law No. 22 was issued in 2007 to develop the petroleum wealth and to protect the natural environment of the Region. The Law contains several provisions about health, safety and the environment. Under the Kurdistan Oil and Gas Law, the Minister of Natural Resources of the Region shall exercise his powers and discharge his functions under this Law, including under Authorisations made hereunder, in such a manner as to ensure that the petroleum industry is developed in a way that minimises damage to the natural environment and...<sup>1</sup>

According to the law, an application for a contract authorisation is responsible for securing the health, safety and welfare of persons involved in or affected by the Petroleum Operations; as well as for protecting the environment, preventing, minimising and remedying pollution, and other environmental harm from the Petroleum Operations.<sup>2</sup> An Authorisation does not constitute a waiver of the Authorised Person's obligations regarding the rules and regulations of the Region unless the consent of the responsible authority has been obtained.<sup>3</sup> Moreover, the Authorised Person is responsible to pay fair and reasonable compensation if he disturbs the rights of the owner of any asset, or causes any damage thereon, for example, land pollution, in the course of petroleum operations, in this case, the Minister of Natural Resources of Region shall estimate and decide a fair and reasonable compensation payable by the Authorised Person according to this Article, after considering representations from interested parties. The Authorised Person has the right to require arbitration in accordance with the contract's arbitration provisions and the affected person has the right to rely on the specialist courts in the Region to object to a compensation decision.<sup>4</sup> When there is more than one Authorised Person in relation to a specific Authorisation, the duties and responsibilities of the Authorised Person according to an Authorisation are jointly and severally the duties and responsibilities of all of them.<sup>5</sup>

Pursuant to article 36 of the law, an Authorised Person is responsible to remove from the Contract Area everything used in the petroleum operations and clean up the Contract Area (decommission) at the end of the period of the Authorisation or termination or when no longer required for petroleum operations. Also, a person who engages in petroleum operations without an

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<sup>1</sup> Oil and Gas Law of the Kurdistan Region No. (28) of 2007, Art. (7) second.

<sup>2</sup> Oil and Gas Law of the Kurdistan Region No. (28) of 2007, Art. (26) third(1and2).

<sup>3</sup> Oil and Gas Law of the Kurdistan Region No. (28) of 2007, Art. (29) first(4).

<sup>4</sup> Oil and Gas Law of the Kurdistan Region No.(28)of 2007,Art.(29) second(1)a and third.

<sup>5</sup> Oil and Gas Law of the Kurdistan Region No. (28) of 2007, Art. (31).



Authorisation, without prejudice to any criminal liability, in terms of environmental pollution, is responsible to clean up pollution resulting from those petroleum operations, or reimbursing the costs of clean-up to the Region and forfeit removing all infrastructure and equipment used in engaging in those petroleum operations, or be liable for the payment of the costs of such removal. The above responsibilities of persons who together are engaged in, or have engaged in, petroleum operations are the responsibilities of them all, jointly and severally.<sup>1</sup>

According to the law, a standard Production Sharing Contract shall include a term that state a commitment to the payment of an agreed amount into an Environment Fund<sup>2</sup>, to be administered by the Regional Government for the exclusive benefit of the natural environment of the Region as well as provisions for securing the health, safety and welfare, environmental protection. The contracts shall include responsibilities for oil and gas companies to and aimed at ensuring environmental protection, which calls for the adoption of methods and processes which minimise the effect of oil and gas operations on the natural environment.<sup>3</sup>

Finally, relating to environmental protection, the Minister is responsible under this law to make regulations to protect and restore the environment, also to clean-up operations and other appropriate methods to remedy and eliminate the consequences of the escape of petroleum.<sup>4</sup> The Minister also is responsible for using a percentage from the petroleum revenues to protect the environment.<sup>5</sup>

#### **4. Drafting Effective Environmental Provisions in Oil and Gas Contracts**

Environmental provisions are significant provisions in oil and gas contracts. To evaluate and analyse these provisions in KRI's PSCs or any other country's oil and gas contracts, general principles of environmental law should be known. Moreover, in drafting environmental provisions, particular attention should be given to several significant considerations by contracting parties. This section provides a clear understanding of general principles of environmental law and elaborates on how to draft effective and appropriate environmental provisions in oil and gas contracts.

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<sup>1</sup> Oil and Gas Law of the Kurdistan Region No. (28) of 2007, Art. (36) first(1 and 2), second (2,3) and third.

<sup>2</sup> Environment Fund: the fund, administered by the Regional Government, to which Revenues will be allocated pursuant to this Law, and to which Contractors are required to contribute pursuant to the terms of a Production Sharing Contract, as specified in article 37 of this Law(Oil and Gas Law of the Kurdistan

<sup>3</sup> Oil and Gas Law of the Kurdistan Region No. (28) of 2007, Art. (37) first(10 and 11), fourth (3).

<sup>4</sup> Oil and Gas Law of the Kurdistan Region No.(28)of 2007,Art. (53) sixth and ninth.

<sup>5</sup> Oil and Gas Law of the Kurdistan Region No. (28) of 2007, Art. (57) first.

**4.1 General Principles of Environmental Law** :Some general principles play a vital role in international environmental law and appear in national constitutions and laws. This sub-section explains the principles as follows:

- 1- The Prevention Principle :According to the prevention principle, protection of the environment by preventing environmental harm is better provided than compensation. Therefore, environmental regulations and rules should predict and prevent the causes of environmental harm. Experience shows that for the environment, prevention of environmental harm should be the Golden Rule, for reasons of ecological and economic. Environmental injury is frequently irremediable: the elimination of a species of fauna or flora, erosion, loss of human life and the dumping of continuous pollutants into the sea, for instance, make irreparable situations. Even when harm is possible to remedy, the expenses of rehabilitation are frequently prohibitive.<sup>1</sup>
- 2- The Precautionary principle :Based on the precautionary principle, precaution requires that appropriate measures need to be taken to anticipate, prevent and control potentially serious risks related to environmental damage caused by human activities. This principle can be considered as one of the important initiatives of the Rio Declaration. According to Article 15 of this Declaration: to protect the environment, countries should use protective measures based on their capabilities. Article 3 of the Climate Change Convention also states: It is better for the parties to the Convention to prepare precautionary measures to anticipate, prevent or minimise climate change and reduce its adverse effects, such measures at the lowest possible cost can benefit the world.
- 3-The Polluter Pays Principle :According to the polluter pays principle, the cost of decontamination shall be paid by the polluter. This principle, on one hand, considers the right of people to have a healthy environment and, on the other hand, has the aspect of preventing the destruction of the environment. The principle of compensation by the polluter was first proposed by the Organization for Economic Co-operation and Development (OECD). Article 16 of the Rio Declaration by emphasising public interests and pointing out that the polluter needs to pay for decontamination, asks governments to consider this principle. Since international treaties have introduced the civil liability scheme for nuclear and oil accidents, whereby individuals have civil liability for activities that lead to environmental damage, the principle of the obligation to pay compensation by the pollutant

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<sup>1</sup> L Kurukulasuriya and N A. Robinson, 2006, United Nations Environment Programme; Division of Environmental Policy & Law, Training Manual on International Environmental Law, Nairobi, Kenya Division of Policy Development and Law, United Nations Environment Programme.

entered into international environmental law. The principle has already been invoked in international arbitration and an award has been issued on that basis; For example, the Smelter Arbitration Court in the United States made Canada liable for polluting the US environment.<sup>1</sup>

#### 4- The Sustainable Development Principle

Based on the sustainable development principle, development in meeting the needs of current generation should not impair the ability of future generation to meet their needs. Sustainable development has been defined as “the process of increasing the spectrum of alternatives allowing individuals and communities to realize their aspirations and potential in the long perspective, at the same time maintaining the regeneration ability in economic, social, and ecological systems.”<sup>2</sup>

The sustainable development principle has been considered in many environmental documents; for example article four of the Rio Declaration states: “in order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.”<sup>3</sup> Article 25 also stipulates: “Peace, development and protection of the environment are interdependent and indivisible”.<sup>4</sup> According to these two articles, the policies and practices of governments should be integrated into different areas to achieve sustainable development. Therefore, the fourth and twenty-fifth Articles contain two concepts of integration and interdependence. In reality, the focus of the UN Conference on Development and Environment in 1992 on the adoption of global policies, that the obvious purpose of which was to reconcile economic development with the protection of the environment, should be seen in the light of the concept of sustainable development.

**4.2 Considerations for Drafting Effective Environmental Provisions in Oil and Gas Contracts:**Carelessness and lack of caution can lead to defective and ineffective environmental provisions. Thus drafters of these clauses should be careful and give more attention to the drafting process to insert useful provisions in oil and gas contracts.

Environmental provisions of oil and gas contracts can be divided into four parts. The first part is the supervision of referral to environmental

<sup>1</sup>Trail Smelter Arbitration, U.S.-Canada, Decision, March 11<sup>th</sup>, 1941, Reports of International Arbitral Awards, Vol. 3 1938-1982.

<sup>2</sup> M. Munasinghe, (1994). *Sustainomics: a transdisciplinary framework for sustainable development*. In *Keynote Paper, Proc. 50th Anniversary Sessions of the Sri Lanka Assoc. for the Adv. of Science (SLAAS), Colombo, Sri Lanka*.

<sup>3</sup> Rio Declaration on Environment and Development, the United Nations Conference on Environment and Development, Rio in 1992. Art, 4.

<sup>4</sup> Rio Declaration on Environment and Development, Art. 25.

regulations, standards and criteria which can be described as the governing law for environmental issues. The second part is provisions relevant to the implementation of environmental plans that oil companies need to meet based on the new environmental standards. The third part explores the environmental management of the project and the fourth part states the provisions of liability, compensation and insurance.

The first part of environmental provisions is the provision of referencing to environmental laws, regulations and standards. In oil and gas contracts, environmental standards, laws and regulations that govern the project are specified in different ways. In this connection, there are five general manners that oil and gas contracts appear to follow:

- (1) reference to domestic environmental law only;
- (2) reference to international industry standards only;
- (3) reference to both domestic law and international industry standards;
- (4) reference to domestic law and/or industry standards and international environmental agreements; or
- (5) development of project-specific environmental standards.<sup>1</sup>

Referencing both domestic law and international industry standards is preferable for oil and gas contracts. To govern environmental issues both are needed, they are supplementary to each other. Most oil and gas contracts contain a reference to both domestic law and international industry standards.<sup>2</sup>

In this regard, stabilisation clauses could be related to environmental standards and laws that govern the contract. Therefore, in drafting oil and gas, drafters should pay attention to such clauses. A classic stabilisation clause freezes the law and regulations that apply to the project at the time the oil and gas contract is signed. However, the new version of the stabilisation clause which is called the economic equilibrium clause requires the host government to restore the economic equilibrium in an oil and gas contract in the case of changes to the laws and regulations that affect the contract.<sup>3</sup> In oil and gas contracts governments should negotiate for a limited stabilisation clause with international oil companies. In other words, governments should exclude some laws from stabilisation, for example, laws and international standards concerning to protection of the environment and the promotion of the health and safety of citizens during the oil and gas projects.

The second part of environmental provisions is the provision relevant to

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<sup>1</sup> Kyla Tienhaara, 'Foreign Investment Contracts in the Oil & Gas Sector: A Survey of Environmentally Relevant Clauses (2011) 11 Sustainable Development Law & Policy 15

<sup>2</sup> Ibid, 16.

<sup>3</sup> Ibid, 17.



plans and programmes that need to be implemented by IOCs. These plans and programmes are various and can have different titles despite the same nature. Environmental Impact Assessment (EIA), Environmental Performance Assessment (EPA), Environmental Management System (EMS), environmental monitoring and inspection, environmental reporting, compensation action plan, environmental damage reduction plan are subjects that usually are mentioned in oil and gas contracts. For the sake of clarity, currently, EIA, which is observed in most industrial projects and oil projects, is an integral part of oil contracts. It is a procedure that assesses the predictable environmental consequences of a proposed project before its implementation and in the planning phase, and considering these consequences in the environmental impact assessment report to present to competent authorities for deciding on the implementation of the project. In other words, EIAs act as an influential tool of environmental governance and ensure that potential environmental impacts are identified at the earliest phases of project planning, thereby permitting them to be avoided or mitigated.<sup>1</sup>

The third part of environmental provisions is the provision relevant to the environmental management of the project. Environmental management of the project means taking actions and adopting measures to prevent pollution. Moreover, in the case of pollution occurrence, reducing its effects and attempting to clean and rehabilitate the environment by the contractor. A complete environmental management plan is necessary, and it should include, among other issues, the contractor's ability and experience in environmental management, environmental employees and their duties within the internal organisation, emergency processes and antipollution tools.<sup>2</sup>

The fourth part of environmental provisions is the provision of liability, indemnity and insurance. Environmental damages will lead to important human and economic dimensions and sometimes tensions between parts of the contract. Environmental damage whether harms the environment itself or damages persons can be due to the contractor's equipment or the actions of its staff or oil operations.

Liability for environmental damage can be complicated, especially when multiple parties, including state-owned companies, are involved in oil production. Therefore oil contracts should contain provisions that are clear about who is liable for what and to whom. In this regard Tienhaara states

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<sup>1</sup> K Tienhaara, 'Environmental Aspects of Host Government Contracts in the Upstream Oil & Gas Sector' (2010) 8 Oil, Gas and Energy Law Intelligence 9.

<sup>2</sup> Z Gao, 'International Petroleum Exploration and Exploitation Agreements: A Comprehensive Environmental Appraisal' (1994) 12 Journal of Energy and Natural Resource Law 240.



that: The issue of “who” depends somewhat on the form of contract, but generally it is the contractor or concessionaire (the IOC) who will be liable, except in cases where fault can be directly attributed to the state or state-owned enterprise. If there is more than one contractor involved in the project, then there will likely be a clause that stipulates that they are jointly and severally liable. The issue of what concerns the types of harms (e.g., only death or injury or also “damage to the environment”), the period in which the harms were caused (i.e. no liability for prior environmental damage established in a baseline assessment), and the legal form of the liability (fault, strict, or absolute). Finally, on the issue of to “whom” the contractor is liable, there are typically two separate issues covered in contracts: liability to the state and liability to third parties. In the latter case, the issue is not directly one of liability—contracts cannot affect the rights of third parties under national law—but rather one of indemnity. Through indemnity clauses, IOCs commit to compensate states for any costs incurred resulting from a third-party liability suit.<sup>1</sup>

The requirement for contractors to have insurance coverage is another issue that is strongly related to liability and indemnity. In oil contracts, the host states should make the obligatory insurance programme or bank guarantees for environmental liabilities as a fundamental component of the environmental obligation. The insurance programme should include satisfactory coverage for pollution liability, clean-up costs, and, especially, costs for killing blowouts.<sup>2</sup>

**5. Environmental Protection in Iraq Kurdistan Region Production Sharing Contracts** The KRG concluded more than 60 PSCs with international oil companies. As the Kurdistan Oil and Gas Law, the Kurdistan region’s PSCs contain several provisions relevant to health, safety and the environment. This section attempts to demonstrate how the environment is protected in KRI’s PSCs. It analyses and evaluates environmental provisions, for this purpose the section focuses on KRI’s PSC model and takes the PSC for Dohuk Block as an example. There are requirements for all applicants for a PSC to include conditions for protecting the environment, preventing, minimising and remedying pollution, which are called Environmental Provisions. Such provisions can be found in Articles 16, 35 and 37 of KRI’s PSC model.

First of all, concerning the stabilisation clause which is related to environmental provisions, it is considered that in KRI’s PSC model<sup>3</sup> and

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<sup>1</sup> Tienhaara, Environmental Aspects of Host Government Contracts in the Upstream Oil & Gas Sector, Op. Cit. 19.

<sup>2</sup> Gao, Op.Cit. 253.

<sup>3</sup> The Kurdistan Model PSC, Art. 43.2- 43.6.



Dohuk PSC<sup>1</sup> such a clause is a full stabilisation clause. A full stabilisation clause tries to completely protect contractual undertakings from any change of applicable law by a host state. Such a clause in modern State contracts is rarely found because host States often do not accept such an unlimited clause. As mentioned earlier in the section of drafting environmental provisions in oil and gas contracts, governments should negotiate for a limited stabilisation clause by excluding some laws from stabilisation. For example, laws and international standards concerning to protection of the environment and the promotion of the health and safety of citizens, should be excepted from the stabilisation clause during the oil and gas projects.

According to Article 16 (Contractor's Rights and Obligations) in 16.11 the contractor shall protect environment from pollution, it states that:

The **CONTRACTOR** shall implement a health, safety and environment program and take necessary measures to ensure hygiene, health and safety of its personnel carrying out Petroleum Operations in accordance with prudent international petroleum industry practice.

Said measures shall include the following:

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. .  
.

(f) for the purpose of taking control of any blow out or fire which could damage the environment or Petroleum Field, in accordance with prudent international petroleum industry practice;<sup>2</sup>

This provision determines that the implementation of the environment program is an obligation of the contractor. Similar to KRI's PSCs, protecting the environment is an obligation of contractors in PSCs of Indonesia,<sup>3</sup> Gabon,<sup>4</sup> Cameron<sup>5</sup> and Afghanistan.<sup>6</sup>

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<sup>1</sup> Production Sharing Contract for Dohuk Block in 2008 between the Kurdistan Regional Government of Iraq and DNO Iraq AS., Art. 43.2-43.6.

<sup>2</sup> KRI's Production sharing Contract for Dohuk Block, Art. 16.11.

<sup>3</sup> Production Sharing Contract for Yapen Block in 1999, between Perusahaan Pertambangan Minyak Dan Gas Bumi Negara (Pertamina) and Apex(Yapen) LTD, Art. 5.2.5.

<sup>4</sup> Exploration and Production Contract for Delimited Zone in 2006 between the Gabonese Republic and Total Gabon, Art. 8.6.

<sup>5</sup> Production Sharing Contract for Ndiian River in 2006 between the Republic of Cameroon and KOSMOS Energy Cameroon, Art. 8.6.

<sup>6</sup> The Exploration and Production Sharing Contract for Mazar-I-Sharif Bock in 2013 between The Ministry of Mines & Petroleum of the Government of the Islamic Republic of Afghanistan and Dragon Oil (Mazar-i-Sharif) Limited, and TP Afghanistan Limited, and Ghazanfar Investment Ltd, 5.1 (g).

The KRI's PSC in contractor's rights and obligations generally says that the implementation of the environment program is the contractor's obligation.

Another significant provision concerning the environment in KRI's PSC can be seen in Article 35 (Liability and Insurance). According to this article:

35.5 The **CONTRACTOR** shall take all necessary steps to respond to, and shall promptly notify the **GOVERNMENT** of, all emergency and other events (including explosions, leaks and spills), occurring in relation to the Petroleum Operations which are causing or likely to cause material environmental damage or material risk to health and safety. Such notice shall include a summary description of the circumstances and steps taken and planned by the **CONTRACTOR** to control and remedy the situation. The **CONTRACTOR** shall provide such additional reports to the **GOVERNMENT** as are reasonably necessary in respect of the effects of such events and the course of all actions taken to prevent further loss and to mitigate deleterious effects.<sup>1</sup>

This effective provision can be useful for the government in protecting the environment through petroleum operations. Usually, such a provision is located in the environmental clause in other countries' PSCs. According to this provision, the contractor is liable to take necessary steps to respond to and shall notify the government of, any emergency and event which is causing or likely to cause material environmental damage or material risk to health and safety during oil and gas operations.

In the KRI's PSC, Article 37 (Environmental Provisions) is the specific article to protect the environment. Pursuant to this article there are several responsibilities for IOCs, it stipulates that:<sup>2</sup>

37.1 During the performance of the Petroleum Operations, the **CONTRACTOR** shall take necessary measures to ensure that it, the Operator, its Subcontractors and agents attend to the protection of the environment and prevention of pollution, in accordance with standard practice in the international petroleum industry and any applicable Kurdistan Region Law.

37.2 Prior to surrendering a portion of the Contract Area, the **CONTRACTOR** shall take reasonable measures to clean the area to be surrendered in accordance with standard practice in the international petroleum industry. Such measures shall include, inter alia, removal of facilities, material and equipment together with reasonable measures necessary for the preservation of fauna, flora and ecosystems, all in accordance with generally accepted practice in the international petroleum industry. The **CONTRACTOR** shall only be responsible for site restoration or environmental damage to the extent the same pertains solely and directly

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<sup>1</sup> KRI's Production sharing Contract for Dohuk Block, Art. 35.5.

<sup>2</sup> KRI's Production sharing Contract for Dohuk Block, Art. 37.



to Petroleum Operations pursuant to this Contract.

37.3 The CONTRACTOR shall take reasonable precautions and measures to prevent any pollution which may arise directly as a result of the Petroleum Operations and to protect the environment (fauna and flora), water sources and any other natural resources when carrying out Petroleum Operations.

37.4 The CONTRACTOR shall respect the preservation of property, agricultural areas, and fisheries, when carrying out Petroleum Operations.

37.5 Before starting Exploration Operations within the Contract Area, the CONTRACTOR shall conduct and submit an environmental impact assessment.

#### National Parks and Nature Reserve Areas

37.6 The CONTRACTOR shall take all reasonable measures to minimise any adverse material impact on national parks and nature reserves which may arise directly as a result of the Petroleum Operations, in accordance with generally accepted environmental practices in the international petroleum industry.

37.7 The GOVERNMENT: (i) represents and warrants that, on the Effective Date, there are no national parks, nature reserves or other protected areas located in whole or in part within the Contract Area where the CONTRACTOR shall not be entitled to carry out Petroleum Operations and (ii) covenants that during the term of this Contract will not designate or create or permit the creation of any national parks, nature reserves or other protected areas, located in whole or in part within the Contract Area, where the CONTRACTOR is entitled to carry out Petroleum Operations.

#### Expenditures

37.8 Any reasonable expenditure incurred by the CONTRACTOR in relation with this

Article 37 shall be deemed Petroleum Costs and shall be recovered by the CONTRACTOR in accordance with the provisions of Articles 1 and 25.<sup>1</sup>

Regarding the governing law for environmental issues, the KRI's PSC chooses standard practice in the international petroleum industry and any applicable Kurdistan Region Law. While standard practice in the international petroleum industry and any applicable domestic law is an effective governing law for environmental issues in PSCs, a full stabilisation clause in KRI's PSC is not acceptable and needs to be amended.

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<sup>1</sup> KRI's Production sharing Contract for Dohuk Block, Art. 37.

International petroleum industry practices should be clarified in KRI's PSC as in Indian PSC. As mentioned in the Indian contract, Article 14. 1 (a) "employ modern oilfield and petroleum industry practices and standards including advanced techniques, practices and methods of operation for the prevention of Environmental Damage in conducting its Petroleum Operations;"<sup>1</sup>

In PSCs, parties should clarify the obligation of the contractor regarding plans and programs for the protection of the environment during the time of contract. In KRI's PSC, it is noted that this obligation of the contractor is not written effectively, however in PSCs of Cameroon <sup>2</sup> and Afghanistan<sup>3</sup> such an obligation is mentioned clearly and concisely. For KRI's PSC to be more effective this obligation should be written as:

The contractor shall provide the government in charge of the environment, within the two (2) months preceding the commencement of the minimum work program, an environmental protection plan. The contractor commits, in particular, to submit in due course the environmental impact study in compliance with prudent international petroleum industry practice. The contractor shall take all necessary measures to secure the health and safety of individuals consistent with prudent international petroleum industry practice and any applicable Kurdistan Region Law. Prior to the commencement of Petroleum operations in the contract area, the contractor shall establish, submit to the government and publish, implement and enforce a health and safety plan throughout all petroleum operations.

Concerning the provisions of the environmental management plan in KRI's PSC, it is seen that the contract attempts to provide relevant provisions to environmental management. It states that: "the contractor shall take reasonable measures to ensure that it, the Operator, its Subcontractors and agents attend to the protection of the environment and prevention of pollution..."<sup>4</sup> It adds to this: "Prior to surrendering a portion of the Contract Area, the contractor shall take reasonable measures to abandon the area to be surrendered ..."<sup>5</sup>

From this Article it is noted that in connection with environmental management provisions, Article 37 of KRI's PSC generally determines the

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<sup>1</sup> Production Sharing Contract for Block : RJ-ONN-2004/2 in 2007 between the Government of India and Oil India LTD. and Geoglobal Resource (Barbados) INC Art 14.1 (a).

<sup>2</sup> Production Sharing Contract of Cameroon for Ndian River, Art. 21.

<sup>3</sup>The Exploration and Production Sharing Contract of Afghanistan for Mazar-I-Sharif Bock, Art. 23.

<sup>4</sup> KRI's Production sharing Contract for Dohuk Block, Art. 37.1.

<sup>5</sup> KRI's Production sharing Contract for Dohuk Block, Art., 37.2.



obligation of the contractor to protect the environment, however these provisions are not free of flaws. Environmental provisions in Article 37 do not precisely determine the obligation of the contractor after pollution and proceedings for emergencies. As mentioned earlier, Article 35 (Liability and Insurance) 35.5 and 35.6 in KRI's PSC determine the liability of the contractor in such circumstances. Determining the obligation of the contractor after pollution and regulating proceedings for emergency situations are significant subjects in environmental protection provisions in oil contracts. Since there is always the possibility of eruption of oil wells, explosions, oil spills and similar accidents in oil projects, one of the important aspects of the environmental management plan is how to deal with such accidents and should be specified in the contract. Unlike KRI's PSC, in many PSCs, the relevant provisions of the contractor's obligation after the pollution of the environment and dealing with emergency situations are located in the environmental Article. For example, Lebanon PSC<sup>1</sup> in Article 17.1.e states that the contractor shall immediately notify the petroleum administration in the event of any accident, damage, injury, or other serious incident resulting from petroleum activities and damaging the environment. The PSC of Malawi is another effective example for determining a contractor's obligation in emergency situations and any accident that affect the environment. It stipulates that:

33.9 In the event of an emergency, accident, oil spill or fire arising from petroleum operations affecting the environment, the contractor shall forthwith notify the Government and shall promptly implement the relevant contingency plan and perform such site restoration as may be necessary in accordance with international petroleum industry practice.

33.10 In the event of any other emergency or accident arising from petroleum operations affecting the environment, the contractor shall take such action as may be prudent and necessary in accordance with international petroleum industry practice in such circumstances.<sup>2</sup>

In the environmental Article of this contract, the obligation of the contractor is determined in an emergency situation or any accident arising from petroleum operations that affect the environment. The contractor shall notify the government and quickly implement the relevant contingency plan and perform such site restoration. It also requires the contractor to prepare an

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<sup>1</sup> Exploration and Production Agreement for Petroleum Activities for Block 4 in 2018 between the Republic of Lebanon and Total E&P Liban SAL, And Eni Lebanon B.V., And NOVATEK Lebanon SAL., Art. 17.1.e.

<sup>2</sup> Production Sharing Agreement for Block 6 in 2014 between the Government of the Republic of Malawi and Pacific Oil Ltd, Clause 33.

emergency response plan to deal with emergency situations. Thus, the environmental management plan in the PSC of Malawi is significant and could be useful for KRI's PSCs in the event of amending.

In connection with provisions of liability, indemnity and insurance in protecting the environment within KRI's PSC, it is noted that these provisions are generally arranged in Article 35 (Liability and Insurance). These provisions are not repeated in the Article of environmental provisions and this makes KRI's PSC different from other countries' PSCs. In despite of this, Article 37 state that: "The CONTRACTOR shall only be responsible for site restoration or environmental damage to the extent the same pertains solely and directly to Petroleum Operations pursuant to this Contract."<sup>1</sup> Thus, the contractor is responsible for environmental damage to the extent the same pertains solely and directly to petroleum operations pursuant to the contract.

Article 35 determines the liability of the contractor under the contract and states that the contractor shall not be liable to the government for any damage or loss resulting from its conduct of the petroleum operations unless such damage or loss is the result of wilful misconduct or a material failure to conduct petroleum operations under the terms of this contract. It adds that such liability cannot result in the event of any omissions, errors or mistakes committed in good faith by the contractor in the exercise of the powers and authorisations conferred upon the contractor.<sup>2</sup> Moreover, the Article 35 regulates the issue of indemnity in the contract. It stipulates that:

The CONTRACTOR shall indemnify and hold harmless the GOVERNMENT against all losses, damages and liability arising under any claim, demand, action or proceeding brought or instituted against the GOVERNMENT by any employee of the CONTRACTOR or of any Subcontractor or by any dependent thereof, for personal injuries, industrial illness, death or damage to personal property sustained in connection with, related to or arising out of the performance or non-performance of this Contract regardless of the fault or negligence in whole or in party of any entity or individual.<sup>3</sup>

According to this Article, the liable contractor needs to indemnify the government against all losses, damages and liability arising under any claim, demand, action or proceeding brought or instituted against the government by the contractor. It is noted that the article generally determines the liability of the contractor under the contract; it is not specified to the environmental

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<sup>1</sup> KRI's Production sharing Contract for Dohuk Block, Art. 37.2.

<sup>2</sup> KRI's Production sharing Contract for Dohuk Block, Art. 35.2.

<sup>3</sup> KRI's Production sharing Contract for Dohuk Block, Art. 35.3.





damages.

In concern to reasonable expenditure that incurred by the contractor in protecting the environment is deemed petroleum costs and shall be recovered by the contractor.<sup>1</sup> This provision is criticised, because it states any ‘reasonable expenditure’ which is not quite clear and it can have different interpretations. Such provisions will be more effective if states ‘except in case of gross negligence or wilful misconduct on the part of the contractor’ any expenditure incurred by the contractor in protecting the environment is deemed petroleum costs and shall be recovered by the contractor.

Protection of national parks and nature reserves is an effective provision in KRI’s PSC. The environmental protection article stipulates that “the CONTRACTOR shall take reasonable measures to minimise any adverse material impact on national parks and nature reserves which may arise directly as a result of the Petroleum Operations.” This is a useful provision for protecting national parks and nature reserves through petroleum operations which is rare in other countries’ PSC.

An observed loophole within environmental protection provisions in KRI’s PSC is the absence of an explicit provision concerning the failure of the contractor to comply with the provisions of environmental protection or violation of any relevant law. Because when such failure or violation results in pollution or damage to the environment, the contractor shall take all necessary measures to remedy noncompliance or such violation and effects thereof. Moreover, it is important to mention if such pollution or damage is the result of the contractor’s negligence or willful misconduct, the cost of remedy shall not be a recoverable expenditure. Such a provision can be seen in the PSC of Malawi<sup>2</sup>, Gabon<sup>3</sup> and India<sup>4</sup>.

Insurance provisions play an important role in oil and gas contracts. The KRI’s PSC in Article 35 contains effective insurance provisions. The Article states: In accordance with prudent international petroleum industry practice, each CONTRACTOR Entity shall maintain any insurance required by applicable Kurdistan Region Law, as well as any insurance approved by the Management Committee.

Such insurance policies may cover:

- (a) loss of and damage to material and equipment used in the Petroleum Operations; and
- (b) personal injury, damage to third parties and risks of pollution associated with Petroleum Operations for reasonable amounts, within

<sup>1</sup>KRI’s Production sharing Contract for Dohuk Block , Art. 37.8.

<sup>2</sup> Production Sharing Agreement of Malawi for Block 6, Art. 33.13.

<sup>3</sup> Gabonese Exploration and Production Contract for Delimited Zone, Art. 14.3.

<sup>4</sup> Indian Production Sharing Contract for Block : RJ-ONN-2004/2, Art. 14.2.

the limits approved by the Management Committee.<sup>1</sup>

This article precisely determines how and what needs to be insured by the contractor within petroleum operations.

In sum, through analysing and evaluating environmental protection provisions in KRI's PSC, as indicated there are some flaws and loopholes in these provisions. Therefore, they need reconsideration and reform for the next generation of KRI's oil and gas contracts to be more effective.

**6. Conclusion** :The Kurdistan Region of Iraq a region with large oil reserves, since 2007 has adopted a PSC for oil contracts with IOCs. In the Kurdistan Region, like elsewhere in the world, IOCs may face environmental pollution during their petroleum activities. To protect the environment from pollution and deal with the case of environmental provisions through petroleum operations, countries and IOCs need to take precautions in drafting environmental provisions in their oil and gas contracts. After analysing these provisions in KRI's PSC and comparing them with such provisions in several countries' PSCs, the most important findings and recommendations that emerged from this study briefly are:

**6.1 Findings** KRI has attempted to protect its environment through petroleum operations by passing the laws of Kurdistan Environment Protection and Improvement Law No. 8 / 2008 and Kurdistan Oil and Gas Law No. 22/ 2007. Moreover, KRI has regulated environmental provisions in its PSC to protect the environment within the oil and gas projects in the Kurdistan Region.

- 1- In general, environmental provisions of oil contracts can be divided into four parts which are:
  - a) The supervision of referral to environmental regulations, standards and criteria which can be described as the governing law for environmental issues,
  - b) The provisions relevant to the implementation of environmental plans that oil companies need to meet based on the new environmental standards,
  - c) The environmental management of the project, and
  - d) The provisions of liability, compensation and insurance.
- 2- Environmental provisions in the KRI's PSC are not free of flaws and loopholes.
- 3- The stabilisation clause in KRI's PCS model is an absolute stabilisation clause, because it does not exclude any law from stability, even environmental law.
- 4- The governing law for environmental issues in KRI's PSC is an appropriate governing law. It contains standard practice in the

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<sup>1</sup>KRI's Production sharing Contract for Dohuk Block, Art. 35.8.

international petroleum industry and any applicable Kurdistan Region Law. The standard practice in the international petroleum industry and any applicable domestic law is an effective governing law for environmental issues in PSCs.

- 5- Most PSCs regulate all environmental provisions including protection, liability, indemnity, and insurance provisions within an Article or clause. But KRI's PSC regulates liability, indemnity, and insurance provisions in a separate Article of environmental provisions Article which is Article 35 (Liability and Insurance).
- 6- An observed loophole within environmental provisions in KRI's PSC is the absence of an explicit provision concerning the failure of the contractor to comply with environmental provisions or violation of any relevant law.

**6.2 Recommendations** :Since a full stabilisation clause tries to completely protect contractual undertakings from any change of applicable law by a host government, KRG should reconsider the stabilisation clause. For its new oil and gas contracts, KRG should try to negotiate a limited stabilisation clause with IOCs by excluding some laws from stabilisation. Especially laws and international standards concerning the protection of the environment and the promotion of the health and safety of citizens during petroleum operations, need to be excluded from the stabilisation clause.

- 1- In PSCs, parties determine the obligation of the contractor regarding plans and programs for environmental protection during the time of contract. In KRI's PSC, it is noted that this obligation of the contractor is not written effectively. Determining such obligations to be more effective should be written as: The contractor shall provide the government in charge of the environment, within the two (2) months preceding the commencement of the minimum work program, an environmental protection plan.

The contractor commits, in particular, to submit in due course the environmental impact study in compliance with prudent international petroleum industry practice. The contractor shall take all necessary measures to secure the health and safety of individuals consistent with prudent international petroleum industry practice and any applicable Kurdistan Region Law.

Prior to the commencement of Petroleum operations in the contract area, the contractor shall establish, submit to the government and publish, implement and enforce a health and safety plan throughout all petroleum operations.

- 2- In KRI's PSC, whole provisions of environmental management are not in the assigned Article (environmental provisions), some provisions are within the Article (Liability and Insurance). The contractor's obligations after pollution and proceedings for an emergency are not stated in the article of environmental provisions, such obligations are mentioned in the

- article of Liability and Insurance. In KRI's PSC, these provisions to be more effective should be collected, organised and drafted in the Article of environmental provisions.
- 3- Since there is always the possibility of eruption of oil wells, explosions, oil spills and similar accidents in oil projects, one of the important aspects of the environmental management plan is how to deal with such accidents and should be specified in the contract. In many PSCs, the relevant provisions of the contractor's obligation after the pollution of the environment and dealing with emergency situations are located in the environmental Article, and this is recommended for KRI' PSC.
  - 4- In connection with reasonable expenditure incurred by the contractor in protecting the environment is deemed petroleum costs and shall be recovered by the contractor. This provision is criticised, because it states any 'reasonable expenditure' which is not quite clear and can have different interpretations. Such provisions will be more effective if states 'except in case of gross negligence or wilful misconduct on the part of the contractor' any expenditure incurred by the contractor in protecting the environment is deemed petroleum costs and shall be recovered by the contractor.
  - 5- In the case of failure or violation of the contractor that results in pollution or damage to the environment, the contractor shall take all necessary measures to remedy noncompliance or such violation and effects thereof. Moreover, it is important to mention if such pollution or damage is the result of the contractor's negligence or willful misconduct, the cost of remedy shall not be a recoverable expenditure.

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