

# Petroleum Exploration and Production Contracts as Regulatory Tools: The Kurdistan Region Production Sharing Contracts

Rdhwan Shareef Salih

Department of Law, Faculty of Law, Political Science and Management, Soran University, Kurdistan Region-Iraq.

Professor Dr. Akram Yamulki

Department of Law, Faculty of Law and International Relations, Cihan University-Erbil, Kurdistan Region-Iraq

## Abstract

*The operating activities of the petroleum sector require large amounts of money and high levels of experience and technology that cannot be provided exclusively by most oil-producing countries or their public companies. Therefore, concluding a petroleum exploration and production contract is necessary to address the rights and obligations of the host State and international oil companies; while, various types of petroleum contracts have been developed to address those rights and obligations. In the Kurdistan Region, as an oil-producing region, oil and gas resources are being explored and produced by international oil companies, under production sharing contracts. This study attempts to appraise traditional and modern types of petroleum exploration and production contracts in detail, to examine the fundamental differences and similarities between them; and also to analyse the Kurdistan Region's production sharing contracts. This research has clarified that the traditional contracts of different types of petroleum contracts are quite different, however, the modern contracts have many provisions in common. Therefore, currently, the choice of contract type might be less important than the content of particular contractual provisions. Finally, the research has clarified that the Kurdistan Region's production sharing contracts comprise several positive provisions that have attracted a wide range of international oil companies to invest in the Kurdistan Region.*

**Keywords:** The Kurdistan Region of Iraq, The Kurdistan Regional Government, Production Sharing Contract, Concession Contract, Service Contract, Joint Venture Contract, International Oil Company, Traditional and Modern Petroleum Contracts.

**DOI:** 10.7176/JLPG/101-17

**Publication date:** September 30<sup>th</sup> 2020

## 1. Introduction

Oil and gas are the most important sources of energy in the world and they are being used in almost all activities such as production and transportation. Activities of the oil and gas sector, which must take place to extract oil and gas resources from the ground and transform them into saleable oil and gas, have been internationalized and now involve many countries and international oil and gas companies. Generally, these activities can be divided into three main segments: upstream, midstream and downstream. Upstream activities entails exploration, development and production; Midstream activities comprise storing, trading and transporting oil and gas; and downstream activities include oil refining, marketing and petrochemical production.<sup>1</sup> Operating the mentioned activities or hydrocarbon business activities, which last many years, require large amounts of money and high levels of experience and technology that cannot be provided exclusively by most States or public companies. Therefore, a commercial relationship is necessary for the State or a public company with one or various foreign companies to make an investment in oil and gas activities. For regulating and managing this commercial relationship, a contractual framework is essential between the parties which called the 'Oil Contract' or 'Petroleum Contract'. Salih and Salih declares that one of the most important decisions that host States need to make is selecting the type of contract, to use with IOCs.<sup>2</sup> It should be pointed out that there are variety and different types of oil and gas contracts according to upstream, midstream and downstream segments' activities. However, this study mainly focuses and analyses types of oil and gas exploration and production contracts.

In terms of Kurdistan petroleum sector, oil and gas resources are being explored and produced by international oil companies (IOCs), mostly under one type of petroleum contract which is the production sharing contract (PSC).

<sup>1</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) p. 68.

<sup>2</sup> M S Salih and R S Salih, 'Strategy of Oil Contract Negotiation' (2015) 6(9) International Journal of Business and Social Science 168-175.

It is clear that one of the main aims of granting PSCs by host States, is to attract IOCs to invest in the sector of oil and gas. Hence, the KRG mostly relies on the PSC and attracts a wide range of IOCs to invest in the Kurdistan region. The KRG is continuously increasing total number of signed PSCs.

Generally, this study reviews and argues the main types of exploration and production contracts in oil and gas sector and then provides a clear understanding of these types of contracts. The study also examines PSCs signed by the KRG with IOCs and finally, highlights the most positive provisions of KRG's PSCs. Therefore, this study attempts to answer two significant questions, which are:

1. What are the fundamental differences and similarities between traditional and modern types of exploration and production contracts in the oil and gas sector?
2. What are the most positive provisions of the KRG's PSCs, which have attracted a wide range of international oil companies to invest in the Kurdistan Region?

To answer the questions of this study, it would be divided into four main sections. The study is introduced in the first section. The second section will appraise main types of exploration and production contracts in the oil and gas sector and the third section will examine the Kurdistan's PSCs and highlight the most positive provisions of KRG's PSCs. The fourth section will conclude the study by highlighting the main findings.

## 2. Typologies of Exploration and Production Contracts in the Oil and Gas Industry

Throughout the literature and universe of oil contracts, there are variety of classifications for the main exploration and production oil and gas contracts through which the rights and obligations of parties have been determined. For example, the contracts or arrangements for exploration and production of petroleum have been classified into two main categories: (1) concessionary systems (also called licenses or lease and sometimes referred to as tax/royalty systems); and (2) contractual-based systems: as production sharing contracts and service contracts. In addition, a simple categorization for the upstream oil and gas contracts is offered, which divide the contracts into three main types, which are (1) concessions or licenses; (2) production sharing contracts (or agreements); and (3) service contracts. Types of oil and gas contracts also are divided into concession or license, service contract, joint venture contract (the participation agreements), and production sharing contract. Furthermore, there are more classifications for exploration and production oil and gas contracts. For example, they are divided into service contracts, profit sharing contracts, production sharing contracts, license contracts and any combination thereof; also divided into the licence, the concession, the production sharing agreement (PSA) and the service contract. It is therefore clear that there are many classifications for types of exploration and production contracts in the oil and gas industry. However, for the purposes of this study, concession contract, service contract, production sharing contract and joint venture contract are regarded as the main types of petroleum exploration and production contracts; and in order to answer the first question, all the four mentioned types of contracts will be appraised, as follows:

### 2.1 Concession Contracts

Concession contracts, sometimes called licenses or tax/royalty systems, are the oldest form of petroleum contracts. The concession contract which originated at the very beginning of the petroleum industry in the mid-1800s, was the first system of petroleum development arrangement adopted to regulate the petroleum industry and is still the most widely practised contract system throughout the world. Concessions contract first developed in the United States of America (the USA) in the 1800s, especially in 1859<sup>1</sup>, then IOCs exported the idea of the contract to oil producing countries. The basic principle of concession contracts is derived from the concept of 'land ownership' based on the American system of land ownership. In the country, a landowner has absolute legal right over his land, beneath (sub-surface) and the sky above the surface of it. Therefore, this would include petroleum below the land that can be granted to a company. Accordingly, this contracts seen more or less as granting a land ownership to a private company over a period of time for a fee.<sup>2</sup>

This type of contract has evolved significantly since its introduction and is used in many countries, for example,

---

<sup>1</sup> S Saidu and H A Sadiq, 'Production Sharing or Joint Venturing: What Is the Optimum Petroleum Contractual Arrangement for the Exploitation of Nigeria Oil and Gas?' (2014) 2 (2) *Journal of Business and Management Sciences* 35-44. DOI: [10.12691/jbms-2-2-2](https://doi.org/10.12691/jbms-2-2-2).

<sup>2</sup> K K A Abraham, 'Contractual Agreements in Ghana's Oil and Gas Industry: In Whose Interest?' (2017) 8 (2) *Journal of Sustainable Development Law and Policy* 186-208; T Boykett and others, *Oil Contracts: How to Read and Understand a Petroleum Contract* (OpenOil/Times Up Press, Linz 2012) p. 26.

Kuwait, Sudan, Angola, Ecuador,<sup>1</sup> Australia, Canada, Norway, UK, USA,<sup>2</sup> Thailand, and some Middle East States.<sup>3</sup> Additionally, Damilola S. Olawuyi clarifies that “Algeria, Cameroon, Egypt, Ghana, Mozambique, Namibia, Nigeria, South Africa, as well as several other frontier extractives jurisdictions in Africa, all adopt the concessionary system.”<sup>4</sup> There are mainly two types of concession contracts: traditional concession and modern concession.

### 2.1.1 Traditional Concession

Traditional concession refers to the earliest forms of licensing granted by governments to IOCs. Cotula defines concessions traditionally as “contracts whereby the government grants the investor the exclusive right to exploit natural resources or run utilities or other public services in a given area for a specified period of time, in exchange for payment of royalties, taxation and fees.”<sup>5</sup> Also, Comeaux and Kinsella state that “[a] typical concession agreement grants the exclusive right to explore, search, and drill for, produce, store, transport, and sell petroleum within the designated concession acreage for a specified number of years.”<sup>6</sup> Besides, Okoli defines a licence as “a permit granted by the state to an investor to explore, develop and produce oil and gas at its own risk and cost for a specified period of time. In return, the investor pays taxes or royalties to the state.”<sup>7</sup>

Therefore, through this type of contract, the host State grants exclusive rights to the contract holder to explore for, develop, sell and export petroleum resources<sup>8</sup> for a specific long period of time in a specific broad territory<sup>9</sup> (sometimes over the whole country) which is known as the license area, tract or block. As mentioned, traditional concession’s contractual period given the company is normally a long lease such as 60-90 years. For example, according to the Kuwait oil concession of 1934, Kuwait government granted a concession right to run for a period of 75 years,<sup>10</sup> and in the 1920s, the ruler of Iraq, King Faisal I\*, signed three concession contracts with a consortium of oil companies for approximately 75 years.<sup>11</sup>

Moreover, the host State generally owns the oil and gas before it is extracted from the subsoil. However, the ownership of petroleum transfers to the investor when it is produced and reaches the wellhead.<sup>12</sup> Mucci states that “[t]he wellhead is the component at the surface of an oil or gas well that provides the structural and pressure-controlling interface for the drilling and production equipment.”<sup>13</sup> The oil companies bear all risks and funds of

<sup>1</sup> J Radon, 'The ABCs of Petroleum Contracts: License-Concession Agreements, Joint Ventures, and Production-sharing Agreements' in S Tsalik and A Schiffrin (eds), *Covering Oil: A Reporter's Guide to Energy and Development* (Open Society Institute, New York 2005) p. 63.

<sup>2</sup> C Nakhle, 'Towards Good Governance of the Oil and Gas Sector in the MENA' Paper No. 18 (United Nations, Beirut, 2017) p. 26. <[https://www.unescwa.org/sites/www.unescwa.org/files/page\\_attachments/oilgasgovernance-arab-final-submitted.pdf](https://www.unescwa.org/sites/www.unescwa.org/files/page_attachments/oilgasgovernance-arab-final-submitted.pdf)> accessed 8 December 2019.

<sup>3</sup> C A Husna, L Hastuti and I Prihandono, 'Adaptation of Contract Models of Oil and Gas: A Comparative Study' (2017) 1 (1) *Hang Tuah Law Journal* 56-75. DOI: [10.30649/htlj.v1i1.9](https://doi.org/10.30649/htlj.v1i1.9).

<sup>4</sup> D S Olawuyi, *Extractives Industry Law in Africa* (Springer Nature Switzerland AG, Cham 2018) p. 200.

<sup>5</sup> L Cotula, *Investment Contracts and Sustainable Development: How to Make Contracts for Fairer and more Sustainable Natural Resource Investments* (International Institute for Environment and Development (IIED), London 2010) p. 24.

<sup>6</sup> P E Comeaux and N S Kinsella, *Protecting Foreign Investment Under International Law: Legal Aspects of Political Risk* (Oceana Publication, Inc., Dobbs Ferry, New York 1997) p. 127 and 128.

<sup>7</sup> C S A Okoli, 'Production Sharing Agreements and Licences: A Distinction Without a Difference?' (2012) 282 *International Energy Law Review* 1-5. DOI: [10.2139/ssrn.2171506](https://doi.org/10.2139/ssrn.2171506).

<sup>8</sup> J Radon and S Logan, 'National Oil Companies in the Middle East and North African: Remaining Relevant in a Changing World' Working Paper No. 1072 (The Economic Research Forum, Giza 2016) p. 5.

<sup>9</sup> R S Salih and M S Salih, 'Compare and Contrast Offtake Agreements and Concession Agreements' (2017) 57 *Journal of Law, Policy and Globalization* 11-21.

<sup>10</sup> J Easo and Ashurst LLP, 'Licences, Concessions, Production Sharing Agreement and Service Contracts' in G Picton-Turbervill (ed), *Oil and Gas: A Practical Handbook* (Sian O'Neill/Global Business Publishing Ltd, London 2009) p.27-41.

\*Faisal bin Hussein bin Ali al-Hashimi, was born on May 20, 1885 in Mecca and died on September 8, 1933 in Bern, Switzerland. He was King of Iraq from 1921 to 1933. Source: IMDB, 'King Faisal I: Biography' <[https://www.imdb.com/name/nm0454372/bio?mode=desktop&ref\\_=m\\_ft\\_dsk](https://www.imdb.com/name/nm0454372/bio?mode=desktop&ref_=m_ft_dsk)> accessed 15 December 2019.

<sup>11</sup> *ibid.*

<sup>12</sup> S Tordo, D Johnston and D Johnston, *Petroleum Exploration and Production Rights: Allocation Strategies and Design Issues: World Bank Working Paper No. 179* (The World bank, Washington D.C. 2010) p. 9.

<sup>13</sup> S A Mucci, 'Managing Political and Investment Risk in the International Oil and Gas Industry' PhD Thesis

all operations<sup>1</sup> and the host State receives revenues from the investor who pays royalties (either in kind with oil and gas or in cash) and taxes on income earned from its petroleum operations,<sup>2</sup> when hydrocarbons are produced.

### 2.1.2 Modern Concession

The modern concessions also known as the Royalty/Tax Systems because they include various combinations of a royalty, an income tax and a resource rent tax. Concessions are now sometimes called permits, licence or lease. In many countries, the transmutation of traditional concessions to modern concessions is happened, especially in Latin America and North Africa. The foundations of the new generation of concession contract is essentially based on the same principle of exclusive rights and ownership of product in return for royalties in kind or cash and tax on the profits derived from production. However, the main concerns of the traditional concessions were related to degree of international oil companies' control, geographical scope, long period and also financial compensation, which have been rebalanced in the modern concessions.<sup>3</sup> The scope of grant is narrowly defined, the geographical area has reduced and local content obligations have added and increased.<sup>4</sup> The modern concessions are for a shorter period of time than traditional concession contracts<sup>5</sup> (maximum 30-40 years), share for the government both from royalty and taxes have increased, for example, Kazakhstan's new model concession contracts royalties increased and various levels of taxation have been added. Kazakhstan's new model contracts employ numerous fiscal devices and sophisticated formulas to capture rent.<sup>6</sup> Also, modern concessions may include a signing bonus, exploration fee, operation profit percentage, corporate income taxes<sup>7</sup> and some control by the host State, through a NOC, over the management and exploration of its petroleum reserves.<sup>8</sup>

### 2.2 Service Contracts

Service contracts (SCs) are also called service agreements (SAs). Ghandi and Lin argue that service contract is a long-term period contract that some host States use it to gain IOCs' capacity, expertise and capital by granting exploration and production of its oil for a pre-determined fee, without handing over the ownership rights of field and production to them. This type of contract has developed in many countries, such as Venezuela, Kuwait, Iraq, Bolivia, Ecuador, Turkmenistan, Iran and Mexico.<sup>9</sup> Likewise, Elshazly states that "[u]nder a service contract, ownership of petroleum and of plant, equipment and other assets acquired for petroleum operations are retained by the government. An appointed IOC works as a contractor under the direct supervision of the host government."<sup>10</sup> As argued by Easo and Ashurst LLP, SCs usually adopted in countries whereby they have strong elements of nationalism and foreign control or ownership of natural resources have been prohibited by their constitution, such as Saudi Arabia, Kuwait and Iran.<sup>11</sup>

Accordingly, in a SC, the host State pays IOCs/the contractor or shares the oil produced, for its services or information in exploring for and developing petroleum.<sup>12</sup> In other words, IOCs receive payments for their services and the host State seeks to greater control over exploration and development of its resources. Tordo, Johnston and Johnston state "under a SA, the state hires the contractor to perform exploration and/or production services within

---

(University of Missouri-St. Louis, 2015) p.101.

<sup>1</sup> P D Cameron and M C Stanley, *Oil, Gas, and Mining: A Sourcebook for Understanding the Extractive Industries* (World Bank Group, Washington, Dc 2017) p. 76.

<sup>2</sup> P D Cameron, *International Energy Investment Law: The Pursuit of Stability* (Oxford University Press, New York 2010) p. 40.

<sup>3</sup> M Likosky, 'Contracting and Regulatory Issues in the Oil and Gas and Metallic Minerals Industries' (2009) 18 (1) *Transnational Corporations* 1-42. DOI: [10.18356/d3e73f33-en](https://doi.org/10.18356/d3e73f33-en).

<sup>4</sup> Olawuyi, op. cit., p. 202.

<sup>5</sup> Comeaux and Kinsella, op. cit., p. 128.

<sup>6</sup> M J Kaiser and A G Pulsiper, 'A Review of the Oil and Gas Sector in Kazakhstan' (2007) 35(2) *Energy Policy* 1300-1314. DOI: [10.1016/j.enpol.2006.03.020](https://doi.org/10.1016/j.enpol.2006.03.020).

<sup>7</sup> E Gonzalez-Canales, 'Mexican Energy Law: Industry Renaissance or Chronicle of a Death Foretold: Part 1: Upstream Ventures in Mexico' (2015) 8 (1) *The Journal of World Energy Law & Business* 45-75. DOI: [10.1093/jwelb/jwu038](https://doi.org/10.1093/jwelb/jwu038).

<sup>8</sup> M Efstathios, 'Types of Contracts Used in the Upstream Oil Industry and Related Issues' Master Thesis (International Hellenic University, 2018) p.13.

<sup>9</sup> A Ghandi and C Y Cynthia Lin, 'Is Resource Nationalism on the Rise? Evidence from Service Contracts in Eight Countries' (2015) First Quarter, *International Association for Energy Economics* 35-37.

<sup>10</sup> M I Elshazly, 'The Legal and Contractual Framework Pertaining to the Exploration and Production of Shale Gas in Egypt' (2015) 8 (4) *Journal of World Energy Law & Business* 385-390. DOI: [10.1093/jwelb/jvw016](https://doi.org/10.1093/jwelb/jvw016).

<sup>11</sup> Easo and Ashurst LLP, loc. cit.

<sup>12</sup> *ibid*.

a specified area, for a specific time period. Contractor services are compensated by a fixed or variable fee.”<sup>1</sup> It is noticeable that this type of contract does not give the IOC ownership rights to the oil in the ground and the ownership remains with the host country. It means, the international company never obtains ownership of or ‘title’ to the oil produced and the company is simply paid a fee for its services in extracting the States’ oil.<sup>2</sup> In this type of contract there is not any profit sharing, therefore it may have a lower return for IOCs than other types of contracts, especially when prices are high.<sup>3</sup>

According to Yúnez and Chapa, in terms of risk assignation between host State and IOCs, there are two types of service contracts: pure service contract and risk service contract. Also, there is buy-back contract which is a type of risk service contract.<sup>4</sup> However, Michael Likosky<sup>5</sup> and Olawuyi<sup>6</sup> state that service contracts have three main types: pure service contract, risk service contract, and the technical assistance contract. Aghion and Quesada explain that “in a pure service contract, the IOC is paid a flat fee, and hence bears no exploration cost. In risk service contracts, however, the IOC bears all the exploration costs.”<sup>7</sup> Moreover, Salih mention that “[i]n the technical service contract, unlike the other service contracts, the company has no right to obtain an interest in the resource and the host Government is the strongest party.”<sup>8</sup> The mentioned types of service contracts are discussed below:

### 2.2.1 Pure Service Contract

Pure service contract is the most straightforward type of service contracts. In this contract the IOC is brought in to carry out a defined and specific service (for example, consulting, construction, engineering, operational and managerial services) under the supervision of the host State and compensated accordingly. Generally, the pure service contract concerned with oil fields development and occasionally with both oil fields exploration and development. It requires a fixed payment or flat fee for services rendered and the IOC bears no risks other than ability and willingness of the country to pay, but all exploration and production risks and rewards are of the host State and it shoulders all risks. Also, the company accrues no extra returns, for example, if large oil reserves are found.<sup>9</sup> Pure service contracts have been mainly used in Middle East countries, for example in Saudi Arabia, Kuwait, Qatar, Bahrain, and United Arab Emirates. They are extremely rare in Africa.<sup>10</sup>

### 2.2.2 Risk Service Contract

In risk service contract, the host State assumes no risks and it is seeking to use IOCs to bear the risk of exploration and to provide all capital associated with exploration and development of oil and gas resources. So, there are two scenarios: either commercially oil and gas are discovered or they are not. If the oil and gas not found during the process of exploration, the contract would end by itself. However, if the oil and gas successfully produced, the IOCs will be reimbursed the cost of investment and received compensation or remuneration in cash (in some States the cash payment may be converted to an equivalent amount of petroleum by right) for the risk based on their agreed contract. The main risk here is exploration risk which distinguished risk service contract from pure service contract<sup>11</sup> because only if economical levels of reserves are discovered, the company’s costs and profit are

<sup>1</sup> Tordo, Johnston and Johnston, op. cit., p. 10.

<sup>2</sup> Openoil, ‘Iraq Oil Almanac: An OpenOil Reference Guide’ < <http://openoil.net/wp/wp-content/uploads/2012/08/Iraq-Oil-Almanac-English-PDF.pdf>> accessed 20 December 2019; M S Salih and R S Salih, ‘Legal Protection for Confidential Information in International Oil and Gas Contracts’ (2017) 6 (21/ part 1) Journal of College of Law for Legal and Political Sciences 382-419.

<sup>3</sup> Radon and Logan, op. cit., p. 8.

<sup>4</sup> A I Yúnez and F F Chapa, ‘Oil Risk Contracts, Business Conduct and Performance Patterns: Data Penal Analysis’ (2017) 62(5) Contaduría y Administración 1538-1552. DOI: [10.1016/j.cya.2017.10.003](https://doi.org/10.1016/j.cya.2017.10.003) .

<sup>5</sup> Likosky, loc. cit.

<sup>6</sup> Olawuyi, op. cit., p. 214.

<sup>7</sup> P Aghion and L Quesada, ‘Petroleum Contracts: What Does Contracts Theory Tell Us?’ in W Hogan and F Sturzenegger (eds), *The Natural Resources TRAP*, (MIT Press, Cambridge, Mass 2010) p. 49.

<sup>8</sup> M S Salih, ‘An Investigation into the Legality and Revenue Maximisation Potential of Iraqi Kurdistan’s Petroleum Contracts’ Master Thesis (University of Wolverhampton, 2013) p. 31.

<sup>9</sup> C R Blitzer, D R Lessard and JL Paddock, ‘Risk-Bearing and the Choice of Contract Forms for Oil Exploration and Development’ (1984) 5 (1) *The Energy Journal* 1-28. DOI: [10.5547/ISSN0195-6574-EJ-Vol5-No1-1](https://doi.org/10.5547/ISSN0195-6574-EJ-Vol5-No1-1) ; Likosky, loc. cit.; Easo and Ashurst LLP, loc. cit.

<sup>10</sup> Olawuyi, loc. cit.

<sup>11</sup> Likosky, loc. cit.; U Ikwan And W Iledare, ‘Fiscal Policies in Oil and Gas Sector: Quantitative Assessment of impact of Royalty Terms on Proved reserves Estimation’ The Nigeria Annual International Conference and Exhibition, Lagos, Nigeria, 2-4 August 2016, p. 6; C V Da Silva and D D Bonolo, ‘Unitization Involving Non



recoverable.<sup>1</sup> Additionally, if there is commercial oil and gas discovery, the IOCs would provide the service needed for development and production. In this case, the operation could be shifted into the host State corporation; or the IOCs would remain to be the operator and all the expenses would be reimbursed and added with a service fee for the risk. A number of countries use this type of contract, for instance, Brazil, Peru, India, Argentina,<sup>2</sup> Ecuador, Mexico, and Bolivarian Republic of Venezuela.<sup>3</sup> In legal prospective, according to this contract, the IOC does not have the ownership of the oil and gas and production but it belongs to the host State directly or to the host State owned company.<sup>4</sup>

### 2.2.3 Technical Service Contract

The technical service contract or technical assistance contract, as the narrowest type of service contract, whereby it can be used to take advantage of the multinationals' technological and managerial expertise and capital resources, is currently used in Iraq. In this contract, as the other service contracts, IOCs are brought in to carry out a well-defined task or service, for a regulated period of time. In return they receive a fixed compensation for the service and they have no possibility of obtaining any interest in the petroleum explored or extracted at any times because the company is only engaged to provide technical services. Moreover, the host State makes all of the decisions and takes all the revenue.<sup>5</sup> When a State has oil and gas stock and needs operational management of marketing or foreign technical skills to continue or develop production, technical service contract can be used and the IOC keeps the existing production run.

### 2.2.4 Buy-back Contract

Other type of service contract is buy-back contract which is Iran's favoured type of oil contract. A few authors<sup>6</sup> classify the buy-back contract as one variant on the risk service contract; also, Muttitt<sup>7</sup> classifies it as one variant on the technical service. However, several Iranian authors, for example, Shiravi,<sup>8</sup> Ghorbanyan and Shafei Khah,<sup>9</sup> Kakhki,<sup>10</sup> Nejad, Manzoor and Amani,<sup>11</sup> Rahimi,<sup>12</sup> and Adyani<sup>13</sup> order it as a main type of service contract. The buy-back is a short term contract that has been used in Iran, in which an IOC provides all necessary capital for exploration or/and development of field; and is repaid capital expenditure, interest charges and a fixed agreed rate of return through the sale of the produced oil or gas, mostly from the invested field (a share of the profit from the host State after production starts), also the IOC has a right to buy the oil or gas.<sup>14</sup> In this contract, the host State controls over the exploration and development management of its resources; it has ownership rights to the petroleum and the international company never obtains ownership of it. The IOC funds and provides all plant, equipment and other assets for petroleum operations.<sup>15</sup> Additionally, when the contract is over, the IOC must transfer all land and facilities to host State or its national oil company. Generally, this contract concerned with

---

Contracted Area: Comparison Between Contractual Models' (2017) The Offshore Technology Conference Brasil, Barazil, Rio de Janeiro 24-26 October 2017, P.2.

<sup>1</sup> Blitzer, Lessard and Paddock, loc. cit.

<sup>2</sup> Husna, Hastuti and Prihandono, loc. cit.

<sup>3</sup> Cameron and Stanley, op. cit., p. 77.

<sup>4</sup> Da Silva and Bonolo, op. cit., P.4.

<sup>5</sup> G Muttitt, 'Production Sharing Agreements – Mortgaging Iraq's Oil Wealth' (2006) 28 (3/4) Arab Studies Quarterly 1-17; Likosky, loc. cit.; Olawuyi, loc. cit.

<sup>6</sup> F Sarir, *Development of Upstream Petroleum Contracts of Iran from the Beginning until Now: A Legal and Contractual Perspective* (in Persian) (Majd, Tehran 2015) p.111; Yúnez and Chapa, loc. cit.

<sup>7</sup> Muttitt, loc. cit.

<sup>8</sup> A Shiravi, *Oil and Gas Law* (in Persian) (3<sup>rd</sup> edn Mizan Legal Foundation, Tehran 2016) p. 368.

<sup>9</sup> H Ghorbanyan and M Shafei Khah, *The Legal System Ruling on Oil Contracts* (in Persian) (Majd, Tehran 2016) p.108.

<sup>10</sup> M M H Kakhki, 'A Critical Analysis of Iranian Buy-Back Transactions in the Context of International Petroleum Contractual Systems' PhD Thesis (University of Durham, 2008) p.137.

<sup>11</sup> R H Nejad, D Manzoor and M Amani, 'Economic Evaluation of Fiscal Regime of Buy-Back Contracts in Comparison with Production Sharing Contracts (Case Study: Azadegan Oil Field)' (2018) 22(2) Iranian Economic Review 579-598. DOI: [10.22059/IER.2018.66167](https://doi.org/10.22059/IER.2018.66167).

<sup>12</sup> F Rahimi, *The Law of Oil & Gas Contracts: The Development of Iran's International Oil Contracts* (in Persian) (Ganje Danesh Publication, Tehran 2016) p. 48.

<sup>13</sup> S A Adyani, *Legal and Contracts of Oil and Gas* (in Persian) (Majd, Tehran 2015) p.118.

<sup>14</sup> Muttitt, loc. cit.; Ghorbanyan and Shafei Khah, op. cit., p. 109; Kakhki, op. cit., p.163.

<sup>15</sup> Adyani, op. cit., p. 119.

both oil fields exploration and development or with only development of discovered oil fields. For example, majority of Iranian buy-back contracts signed and executed up are concerned with oil field development.<sup>1</sup>

### 2.3 Production Sharing Contracts

In the international petroleum industry, production sharing agreements (PSAs) or production sharing contracts (PSCs) are the most common type of oil and gas contract.<sup>2</sup> The PSC could be for exploration, development and production (EPSC) of a certain field, or it could be for no exploration, but only for the development, which is known as development and production sharing contract (DPSC).<sup>3</sup>

Chandler argues that at first, Bolivia used PSCs and then adopted by Indonesia in the 1960s.<sup>4</sup> Besides, Paliashvili at a seminar on the PSCs in 1998 stated that the first concept for production sharing was used in the beginning of the 1950s in Bolivia, however, PSCs in their current form were successfully applied in 1960s in Indonesia.<sup>5</sup> Artono argues that the first PSC was signed in September 1961 between Pertamina and Asamera Oil (ind) Ltd., in North Sumatra, Indonesia.<sup>6</sup> However, Johnston states that "[t]he first modern PSC was signed in 1966 [on 18 August in respect of the Offshore Northwest Java Block that called the ONWJ PSC<sup>7</sup>] between the Independent Indonesia American Petroleum Company (IIAPCO) and Pertamina, Indonesia's National Oil Company at the time."<sup>8</sup> Moreover, Roach and Dunstan,<sup>9</sup> Abraham,<sup>10</sup> Ikwan and Iledare<sup>11</sup> declare that PSC was first introduced in Indonesia in 1966. Hence, in the mid 1960, it became the blue print of Indonesia's Model PSC and standard petroleum fiscal regime in what is now regarded as the modern form and many other countries\* then followed this form.<sup>12</sup>

PSCs may be the best approach to enhance developmental interests whereby a large exploration risk exists. This type of contract recognizes that the ownership of the natural resources rests with the host State but it permits a contractor to manage and operate the development of the oil field at the same time.<sup>13</sup> Sidney Moran states that "the contractor explores for, develops, and produces hydrocarbons. An agreed upon share of gross hydrocarbons revenues, often referred to as cost oil, is made available to the contractor for recovery of exploration, development, and operating costs."<sup>14</sup> One of the best definitions of a PSC is Okoli's definition who defines it as:

A contract between a state and an investor, in which the investor at his own cost and risk agrees to explore, develop and produce petroleum resources for the state for a specified period of time. In return, the state rewards the investor with a share of the petroleum resources. The investor is usually first given "cost oil" to cater for the cost of the petroleum exploration; and later, "compensation oil" (or "production or profit oil") to cater for petroleum production, which the investor sells at the international market.<sup>15</sup>

<sup>1</sup> Nejad, Manzoor and Amani, loc. cit.

<sup>2</sup> Cameron, *International Energy Investment Law: The Pursuit of Stability*, op. cit., p. 37.

<sup>3</sup> Nejad, Manzoor and Amani, loc. cit.

<sup>4</sup> J A P Chandler, *Petroleum Resource Management: How Governments Manage Their Offshore Petroleum Resources* (Edward Elgar Pub, Cheltenham 2018) p.227.

<sup>5</sup> I Paliashvili, 'The Concept of Production Sharing' <  
[http://www.rulg.com/documents/The\\_Concept\\_of\\_Production\\_Sharing.htm](http://www.rulg.com/documents/The_Concept_of_Production_Sharing.htm) > accessed 25 December 2019.

<sup>6</sup> H B Artono, 'Dispute Resolution in the Case of Production Sharing Contracts vs Tax Treaty: Case Study of Government of Indonesia vs Oil and Gas Contractors in Branch Profit Tax Issue' (2018) 59 *Advance in Economics, Business and Management Research* 108-113.

<sup>7</sup> B Roach and A Dunstan, 'The Indonesian PSC: The End of an Era' (2018) 11(2) *The Journal of World Energy Law & Business* 116-135. DOI: [10.1093/jwelb/jwy001](https://doi.org/10.1093/jwelb/jwy001) .

<sup>8</sup> D Johnston, *International Petroleum Fiscal Systems and Production Sharing Contracts* (PennWell Books, Tulsa, 1994) p.60.

<sup>9</sup> Roach and Dunstan, loc. cit.

<sup>10</sup> Abraham, loc. cit.

<sup>11</sup> Ikwan And Iledare, op. cit., p. 5.

\* For instance, Angola, Trinidad and Tobago, Timor-Leste, Nigeria, Sudan, Mongolia, Mozambique, Sao Tome' and Principe, Cambodia, Myanmar, China, Tunisia, Egypt, Equatorial Guinea, Ethiopia, India, Tanzania, Liberia, Libya, Malaysia, Mauritania, Gabon, Syria, Vietnam and Yemen.

<sup>12</sup> Artono, loc. cit.

<sup>13</sup> Radon, loc. cit.

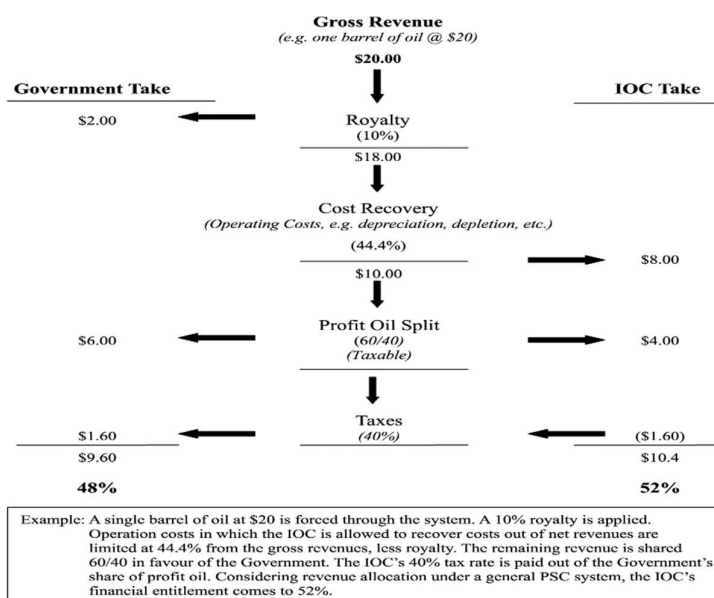
<sup>14</sup> S Moran, 'Analysis of International Oil and Gas Contracts' in R Steinmetz (eds) *The Business of Petroleum Exploration* (The American Association of Petroleum Geologists, Tulsa, Oklahoma 1992) p. 308.

<sup>15</sup> Okoli, loc. cit.

PSCs come in a variety of styles. Commonly it can be illustrated that they are often confidential to the parties. However, currently, these contracts are more open disclosure and supported by the World Bank. Moreover, in countries where PSC contracts are used, there are frequently national oil companies (NOCs) that act as oil companies in their own right and also as regulators.<sup>1</sup> Consequently, the host country remains the custodian of its resource and a NOC represents it. Additionally, under PSCs, NOC or government agency is directly involved in operational decisions either as concessionaire or as a member of a management committee. The committee is common in PSC but rare in concession.<sup>2</sup>

Accordingly, as shown in Figure 1, in the first stage, after exploration of oil and gas, IOCs have to pay a royalty to the host State, like with royalty contract. After that, according to the contract, the IOC can recover its costs with what is called cost oil. Cost oil includes production costs as well as the cost of exploration and drilling. The unrecovered cost beyond the limit can be carried forward. After recovering cost oil, the rest of the production is called profit oil, which will be shared between the contractual parties according to a predetermined scheme. Finally, in respect of its share of profit oil, the IOC has to pay taxes on its oil profits according to the provisions of the host States' legislations.<sup>3</sup>

Figure 1: The PSC Fiscal Arrangement



Source: Adopted from Johnston (1994a)

Source: Johnston cited in N Pongsiri, 'Partnerships in oil and gas production-sharing contracts' (2004)17 International Journal of Public Sector Management 431-442.

Ernest E. Smith<sup>4</sup> argues that the treatment of production is the most significant distinction between concessions and PSCs, not duration or operational control. In a typical PSC, production divides between cost oil and profit oil as previously mentioned. Additionally, service contracts and PSCs are different in the method of compensation; in a service contract the IOCs agree to a pre-determined return in lieu for sharing profit oil in comparison with PSCs. Also service contracts and PSCs may also differ in field and produced crude ownership rights, field's operatorship, and the degree of bearing risks by each side.<sup>5</sup>

<sup>1</sup> Chandler, loc. cit.

<sup>2</sup> Cameron and Stanley, op. cit., p. 76.

<sup>3</sup> Aghion and Quesada, op. cit., p. 48; Kaiser and Pulsiper, loc. cit.

<sup>4</sup> E E Smith, 'International Petroleum Development Agreements' (1993) 8 (2) Natural Resources & Environment 37-39, 61-63.

<sup>5</sup> Ghandi and Cynthia Lin, loc. cit.



## 2.4 Joint Ventures Contracts

When a company obtains the rights by the host State for execution of exploration and production operations, it faces with a new challenge that how to operate and is nervous about operations risks. As a result, with the host State entity (or a NOC) or/and a number of companies participate and enter into joint venture (JV).<sup>1</sup> Iledare and Fubara state that “[t]he formation of a joint venture for the sole purpose of jointly applying or acquiring petroleum rights and conducting petroleum operations has been a standard practice among commercial oil enterprises. This financial option for developing petroleum assets helps mitigate corporate risks and reduce heavy frontloading cost in project development.”<sup>2</sup> There is disagreement in the literature as to whether JVs should be regarded as a type of contract.

JVs are generally divided into two categories: incorporated joint ventures and unincorporated joint ventures. JV contracts may involve creation of a jointly owned company incorporated in the host State, with a separate legal entity which governed by a board of parties representors and called incorporated joint ventures. In this type of JV, there is legal identity. Henceforward, the parties shall be liable only for responsibilities up to the value of their contributions in the company. In contrast, the contracts may also be executed on the basis of contracts alone, without the establishment of a separate legal entity owned by the parties and this called unincorporated joint ventures or contractual joint ventures. This type of JV, is commonly practiced in the petroleum industry and contrary to the incorporated joint ventures, it lacks legal identity and consequently limited liability.<sup>3</sup>

Generally, JV contracts involve a combination of two or more parties, private or/and public, usually one of whom is the State entity or a NOC as a part of the consortium\*, to engage in oil and gas exploration, development and production activities.<sup>4</sup> In other words, under JV contracts, a combination is established between the IOC(s) or investor(s) and the host State in order to explore for and develop oil and gas. In a JV, either the host State does not share in the cost and risk until a commercial field has been discovered, or it shares in costs and risks during exploration, development and exploitation operations and obtains larger share of net revenues.<sup>5</sup> Hence, the IOC and the host State jointly operate the petroleum exploration and development activities. Therefore, the host State is a party of the contract; ownership of the production (profits) is shared between the IOC and the host State according to their participation in the venture.<sup>6</sup> The host State would also expect to receive profit oil, royalties, taxes (but shared by the involved parties<sup>7</sup>). In return, it contributes to the operations costs and bears a share of operations costs, unless it takes a ‘carried’ interest which means that the IOC bears all of the exploration costs and the host State enters the venture only after commercial discovery, then the host State can convert its carried interest into a full working interest.<sup>8</sup> A management team that involves representatives of both the IOC and the host State operates the company.<sup>9</sup> Italian State Oil Company (ENI) pioneered the JV as a petroleum arrangement and the first JV was signed between Agip Mineraria (subsidiary of ENI) and the National Iranian Oil Company (NIOC) in 1957.<sup>10</sup>

In the light of above explanation, it can be said that in the JVs, there are more than one parties. Generally, the host State is one party of the JV, either directly or indirectly through a NOC, as working interest owners. Hence, the

<sup>1</sup> A R Thomas, ‘Overview of Oil and Gas Contract’ <[http://levin.urban.csuohio.edu/epc/docs/Oil\\_and\\_Gas\\_Contracts.pdf](http://levin.urban.csuohio.edu/epc/docs/Oil_and_Gas_Contracts.pdf)> accessed 29 December 2019.

<sup>2</sup> O Iledare and S A Fubara, ‘Pragmatic Joint Venture Financing Options in Nigeria: Implications on Economic Metrics and Government Take Statistics’ The Nigeria Annual International Conference and Exhibition, Lagos, Nigeria, 31 July – 2 August 2017.

<sup>3</sup> International Institute for Environment and Development (IIED), *How to Scrutinise a Production Sharing Agreement* (IIED, London 2012) p. 23.

\*A consortium is a combination of companies (two or more) that work together for carrying into effect some financial operation requiring large resources of capital and achieving a common objective.

<sup>4</sup> I S Adam, ‘An Empirical Investigation of the Efficiency, Effectiveness and Economy of the Nigerian National Petroleum Corporation’s Management of Nigeria’s Upstream Petroleum Sector’ PhD Thesis (Gordon University, 2015) p.51.

<sup>5</sup> R F Mikesell, *Petroleum Company Operations and Agreements* (Routledge Revivals, New York 2015) p. 27 and 28.

<sup>6</sup> Aghion and Quesada, op. cit., p. 49.

<sup>7</sup> Olawuyi, op. cit., p. 211.

<sup>8</sup> E Nyika, ‘Stabilization of Petroleum Fiscal Regime in Relation to Production Sharing Agreement in Tanzania: Challenges and Prospects’ PhD Thesis (University of Aberdeen, 2017) p.6.

<sup>9</sup> Comeaux and Kinsella, loc. cit.; Aghion and Quesada, loc. cit.

<sup>10</sup> M Naseem and S Naseem, ‘World Petroleum Regimes’ in K Talus (ed) *Research Handbook on International Energy Law* (Edward Elgar, Cheltenham 2014) p. 149-181; Mikesell, op. cit., p. 27.

State can obtain participatory interests in its territory's exploration and production operations. The form of JV may be considered as an agreement which is conjunction with a concession, a service contract or a PSC or even a risk-service agreement, not as a separate form of contract. Otherwise, it is considered as separate form of contract.

In JVs, the parties set out the terms of their joint participation and detail<sup>1</sup> by drawing a joint operating agreement (JOA).<sup>2</sup> Therefore, the details of the JV are drawn from a legal framework called the joint operating agreement (JOA). The JOA in petroleum industry is an underlying contractual framework of a JV which is an agreement between two or more parties establishing and setting out the terms between parties for execution of exploration and production operations.<sup>3</sup> In any JOA, there are two types of parties: an operator and non-operator(s). The operator is the party with the highest level of participation and interest in the enterprise and the leader of the consortium which is responsible for conducting the consortium's daily operations on behalf of the consortium/JV, including duties for dealing with the administration of the day-to-day activities of the JV.<sup>4</sup> In this agreement companies share risks, receive benefit from each other's expertise as well as technology and avoid spending additional costs by the duplication of personnel, facilities and equipment. Moreover, in the agreement rights and obligations of the parties are absolutely defined; their sharing of costs and liabilities are allocated. Also, a JOA provides a number of important points, for instance, the methods of conducting and financing operations by the operator and the parties; making decisions; managing equipment and materials; ability and ways of transferring interests; legal consequences of defaults and withdrawals by a contracting party.<sup>5</sup>

Finally, after appraising and analysing the main types of petroleum exploration and production contracts, it can be said that the choice of contract type might be less important than the content of particular contract clauses and provisions because modern contracts of different types of petroleum contracts have many provisions in common.

### 3. The Kurdistan Region Production Sharing Contracts

The KRG extremely has relied on PSC and its petroleum exploration and production activities have been organised under this type of contract, as a quick method to attract investment for its oil and gas sector. The KRG published the draft of Kurdistan Oil and Gas Law and the entire Model PSC in August 2006. After receiving several comments from petroleum companies, NGOs, and citizens for the draft law as well as significant input from many legal experts, leading industry insiders, NGO's and individuals for Model PSC, to make sure that it meets international standards and being consistent with the Kurdistan oil and gas draft law, the KRG published its final draft of the Kurdistan Oil and Gas Law as well as the final Kurdistan Region Model PSC on 29<sup>th</sup> June 2007.<sup>6</sup> Finally, in August 2007, PSCs, as the official regime for Kurdistan petroleum sector's exploration and development, were established by passing the Kurdistan Oil and Gas Law. Also, the last text of the Model PSC was submitted to the Kurdistan Parliament for approval. After more discussion and numerous amendments, it was unanimously approved by the 111 Members of Parliament (MPs).<sup>7</sup>

Article 24 (2) of the Kurdistan Oil and Gas law states that “[a] petroleum Contract may be based on a Production Sharing Contract, ...”<sup>8</sup> Moreover, the Oil and Gas Law set out the terms of the PSC in chapter ten, Articles 37 to 43. Dr. Ashti Hawrami, the former KRG's Minister of Natural Resources with more than three decades experience in the petroleum industry who has been instrumental in making of Kurdistan the hottest exploration and production destination of the day; also is particular responsible for choosing the PSC, prefers this type of contract for Kurdistan and explains the reasons, as follows:

<sup>1</sup> Thomas, loc. cit.

<sup>2</sup> Saidu and Sadiq, loc. cit.

<sup>3</sup> R Idubor, D Asada and O M Adefi, ‘Appraising Taxation and the Nigerian Oil Industry’ (2015) 37 Journal of Law, Policy and Globalization 188-197.

<sup>4</sup> E G Pereira and K Hall, *Joint Operating Agreement: Operatorship Role, Options and Concerns/MarIus nr. 486* (Sjørettsfondet/Univrsity of Oslo, Norway 2017) p.11.

<sup>5</sup> D Saidov, ‘The Standardisation of Oil and Gas Law: Transnational Layers of Governance’ CML Working Paper Series, Paper No. 17/10 (2017) p. 9 & 10 <<https://law.nus.edu.sg/cml/pdfs/wps/CML-WPS-1710.pdf>> accessed 1 January 2020.

<sup>6</sup> Ministry of Natural Resources, ‘KRG Publishes Final Kurdistan Region Draft Oil Law, Model Contract, Exploration Blocks’ <<http://mnr.krg.org/index.php/en/press-releases/114-krp-publishes-final-kurdistan-region-draft-oil-law-model-contract-exploration-blocks>> accessed 3 January 2020.

<sup>7</sup> The Oil and Gas Year, *The Oil and Gas Year: Kurdistan Region of Iraq 2009* (Wildcat Publishing Inc., Neuilly Seine 2009) p.79.

<sup>8</sup> Oil and Gas Law of the Kurdistan Region – Iraq No. (22) of 2007, Article 24 (2). Available at<[http://mnr.krg.org/images/pdfs/Kurdistan\\_Oil\\_and\\_Gas\\_Law\\_English\\_2007.pdf](http://mnr.krg.org/images/pdfs/Kurdistan_Oil_and_Gas_Law_English_2007.pdf)> accessed 3 January 2020.

In my experience, around 90 per cent of the world's producing countries use PSCs. This model has variations around the world, but in essence it is a risk-reward type contract. ... With this kind of contract the interests of the state and the contractor are always aligned. Both sides are motivated to improve and maximise production and reserves. ... I have been working internationally in this industry for over 30 years and I haven't seen a successful system that isn't production sharing or a similar type of contract.<sup>1</sup>

Ashti Hawrami also declares that “[t]his model contract will form the basis for all our future negotiations and contract awards in Kurdistan and some of the existing contracts have also been adjusted using this Model Contract.”<sup>2</sup> George Yacu, a key advisor at the Ministry of Natural Resources of KRG since 2003, affirms that the KRG has chosen the right type of contract to encourage the development of Kurdistan's oil and gas and Baghdad soon realise that the PSC, which is used by the KRG, is a better strategy for oil and gas exploration and development because the KRG's PSC has become a main reason for Kurdistan rapid and faster development.<sup>3</sup> Yacoub also illustrates that the KRG has chosen PSC type because of: (1) almost all of Kurdistan oil and gas fields are undeveloped; (2) lack of financial resources to take the unsuccessful risk of field development; (3) in PSC, IOCs recover their costs of profit oil, therefore if there is no profits oil, they do not recover the costs.<sup>4</sup>

The Kurdistan clear, fair and flexible PSC attracts a convincing number of IOCs to upstream investment in Kurdistan. For instance, according to the KRG Ministry of Natural Resources, from 2006 to 2013, the KRG had granted most of its blocks\* by concluding 57 PSCs with IOCs, as follows: 2 contracts in 2006, 12 in 2007, 11 in 2008, 7 in 2009, 4 in 2010, 13 in 2011, 6 in 2012 and 2 PSCs up to April in 2013,<sup>5</sup> which mostly have been made available on the Ministry of Natural Resources' official website since 25<sup>th</sup> August 2013.<sup>6</sup> However, Carlo Frappi in his chapter under the title 'The Energy Factor: Oil and State-Building in Iraqi-Kurdistan' which is published in 2016, states that the KRG has increased total number of signed PSCs to 60 contracts<sup>7</sup> and it is noteworthy that the KRG signed PSCs for five blocks with Rosneft company in 2017.<sup>8</sup> Hence, the total KRG's concluded PSCs are more than 60 contracts. The contracts were assigned by individual, bilateral negotiations, not formal bid rounds, common tenders or auctions. Hence, there are slightly different between almost all concluded PSCs (however, some differences exist between them but the basic provisions are the same) and they have undergone subsequent modification. Also subsequently, 'capability-building payments' has been introduced or increased by the KRG's modifying which can be direct cash payments or reductions in the IOCs' share of profit oil as a method to increase the KRG's take of profits.<sup>9</sup> It should be said that as exceptions, the KRG has signed two service contracts, with a fixed rate of return, for Khor Mor and Chemchemal Blocks with Dana Gas and Crescent petroleum (later the Pearl Petroleum consortium).<sup>10</sup>

<sup>1</sup> A Hawrami interviewed by The Oil and Gas Year in The Oil and Gas Year, *The Oil & Gas Year: Kurdistan Region of Iraq 2009*, op. cit., p. 22.

<sup>2</sup> A Hawrami cited in Ministry of Natural Resources, loc. cit.

<sup>3</sup> G Yacu cited in The Oil and Gas Year, *The Oil and Gas Year: Kurdistan Region of Iraq 2013* (Wildcat International FZ-LLC, Neuilly Seine 2013) p.73.

<sup>4</sup> L A Yacoub, 'Reconstructing the Governance of Iraqi Oil (2003-2013): Distribution of Oil Revenues Among Kurdistan and Iraq's Provinces' PhD Thesis (The University of Sheffield, 2015) p.177.

\* Find information about all the KRG's exploration and production blocks in: R S Salih and A Yamulki, 'Reforms Feasibility in Kurdistan Region Petroleum Contracts, Triggered by the New Regional Blocks Divisions' (2020) 11(5) International Journal of Business and Social Science 35-56. DOI: [10.30845/ijbss.v11n5a5](https://doi.org/10.30845/ijbss.v11n5a5).

<sup>5</sup> The Oil and Gas Year, *The Oil and Gas Year: Kurdistan Region of Iraq 2013*, op. cit., p.77.

<sup>6</sup> Ministry of Natural Resources, 'Doing Business Upstream' <<http://mnr.krg.org/index.php/en/doing-business-kurdistan/upstream>> accessed 5 January 2020; Ministry of Natural Resources, 'PSCs Signed' <<http://mnr.krg.org/index.php/en/the-ministry/contracts/pscs-signed>> accessed 5 January 2020.

<sup>7</sup> C Frappi, 'The Energy Factor: Oil and State-Building in Iraqi-Kurdistan' in S M Torelli (ed) *Kurdistan an Invisible Nation* (ISPI, Milano 2016) p. 91-122.

<sup>8</sup> Rosneft, 'Operating Results for Q3 and 9M 2017' <<https://www.rosneft.com/press/releases/item/188603/>> accessed 6 January 2020.

<sup>9</sup> R Mills, *A Rocky Road: Kurdish Oil & Independence*, Paper Number: IEI190218 (Iraqi Energy Institute, Baghdad 2018) p.32. <<https://iraqenergy.org/product/a-rocky-road-kurdish-oil-and-independence-report/>> accessed 6 January 2020.

<sup>10</sup> The Oil and Gas Year, *The Oil and Gas Year: Kurdistan Region of Iraq 2011* (Wildcat International FZ-LLC, Neuilly Seine 2011) p. 59; Mills, *A Rocky Road: Kurdish Oil & Independence*, loc. cit.

It terms of contents of the KRG’s PSCs, as shown in Figure 2, they include and emerge a large number of common articles/clauses, which contain several provisions. The provisions have intended to determine the rights and obligations of both sides of the contract, and minimise conflicts between the contractor and the KRG. Zadalis states “the major provisions of the KRG’s model PSC can be regarded as either principal or adjectival.”<sup>1</sup> Article 1 of the KRG’s Model PSC provides definition for 98 terms and expressions in the contract. For example, Abroad, Access Authorisation, Accounts, Agreed Terms, Appraisal Area, Assets, Commercial Discovery, Crude Oil, Decommissioning Costs, Development Plan, Dispute, Environment Fund, and other related terms. The Model also stipulates the terms and expressions shall have the described meaning, unless otherwise specified.<sup>2</sup>

Figure 2: Contents of the Kurdistan’s Model PSC

<u>TABLE OF CONTENTS</u>			
PREAMBLE		Article 24	ROYALTY
Article 1	DEFINITIONS	Article 25	RECOVERY OF PETROLEUM COSTS
Article 2	SCOPE OF THE CONTRACT	Article 26	SHARING OF PROFIT PETROLEUM
Article 3	CONTRACT AREA	Article 27	VALUATION AND METERING OF CRUDE OIL AND NATURAL GAS
Article 4	OPTIONS OF GOVERNMENT PARTICIPATION AND THIRD PARTY PARTICIPATION	Article 28	DOMESTIC MARKET - SALE OF GOVERNMENT SHARE
Article 5	OPERATOR	Article 29	FINANCIAL PROVISIONS
Article 6	TERM OF THE CONTRACT	Article 30	CUSTOMS PROVISIONS
Article 7	RELINQUISHMENTS	Article 31	TAX PROVISIONS
Article 8	MANAGEMENT COMMITTEE	Article 32	BONUSES
Article 9	GUARANTEES	Article 33	PIPELINES
Article 10	MINIMUM EXPLORATION WORK OBLIGATIONS	Article 34	UNITISATION
Article 11	EXPLORATION WORK PROGRAMS AND BUDGETS	Article 35	LIABILITY AND INSURANCE
Article 12	DISCOVERY AND DEVELOPMENT	Article 36	INFORMATION AND CONFIDENTIALITY
Article 13	DEVELOPMENT AND PRODUCTION WORK PROGRAMS AND BUDGETS	Article 37	ENVIRONMENTAL PROVISIONS
Article 14	NATURAL GAS	Article 38	DECOMMISSIONING
Article 15	ACCOUNTING AND AUDITS	Article 39	ASSIGNMENT AND CHANGE OF CONTROL
Article 16	CONTRACTOR'S RIGHTS AND OBLIGATIONS	Article 40	FORCE MAJEURE
Article 17	USE OF LAND AND EXISTING INFRASTRUCTURE	Article 41	WAIVER OF SOVEREIGN IMMUNITY
Article 18	ASSISTANCE FROM THE GOVERNMENT	Article 42	ARBITRATION AND EXPERT DETERMINATION
Article 19	EQUIPMENT AND MATERIALS	Article 43	GOVERNING LAW, FISCAL STABILITY, AMENDMENTS AND VALIDITY
Article 20	TITLE TO THE ASSETS	Article 44	NOTICES
Article 21	USE OF THE ASSETS	Article 45	TERMINATION
Article 22	SUBCONTRACTING	Article 46	APPLICATION OF CORRUPTION LAWS
Article 23	PERSONNEL TRAINING AND TECHNOLOGICAL ASSISTANCE	Article 47	EFFECTIVE DATE
		Annex A	CONTRACT AREA MAP AND LIST OF COORDINATES
		Annex B	ACCOUNTING PROCEDURE

2/115

3/115

Source: Ministry of Natural Resources, ‘KRG Model PSC’ <

[http://mnr.krg.org/images/pdfs/KRG\\_Model\\_PSC\\_production\\_sharing\\_contract\\_20071112.pdf](http://mnr.krg.org/images/pdfs/KRG_Model_PSC_production_sharing_contract_20071112.pdf)

> accessed 8 January 2020.

With respect to ‘Exploration and Development Period’ provisions, under the KRG’s PSC, as delineated in chapter ten of the Kurdistan Oil and Gas Law, exploration period is usually five years, extendable to total seven years. After petroleum discovery, there is development period which is 20 years with an automatic extension of 5 years, with possible further extensions to be negotiated. For example, the Kurdistan PSC for the Taq Taq and Kewa Chirmila Areas stipulates the exploration period for Kewa Chirmila is as follows: “the Initial term of five (5) years shall be subdivided in two (2) sub-periods as follows: (a) an initial sub-period of three (3) Contract Years (“First sub-Period”); and (b) a second sub-period of two (2) Contract Years (“Second sub-Period”).”<sup>3</sup> It should be mentioned that according to the contract, the right of the contractor to reach the next Sub-Period is subject to execution of the minimum exploration obligations applicable to the previous sub period<sup>4</sup> and the contractor pays ‘Exploration Rental’ which is ten (10) US dollars per square kilometre per contract year as an annual surface rental for the contract area which is subject to reduce by relinquishment and it is recoverable.<sup>5</sup> The contract terminates, if there is no commercial discovery at the end of the exploration period.<sup>6</sup> If a discovery is made within the

<sup>1</sup> R J Zadalis, *The Legal Dimensions of Oil and Gas in Iraq: Current Reality and future Prospects* (Cambridge University Press, New York 2009) p. 114.

<sup>2</sup> See definitions of all terms and expressions in article 1 of the latest Kurdistan Regional Government Model PSC, available at <[http://mnr.krg.org/images/pdfs/KRG\\_Model\\_PSC\\_production\\_sharing\\_contract\\_20071112.pdf](http://mnr.krg.org/images/pdfs/KRG_Model_PSC_production_sharing_contract_20071112.pdf)> accessed 8 January 2020.

<sup>3</sup> The Kurdistan PSC for Taq Taq and Kewa Chirmila Areas between the Kurdistan Region of Iraq and Genel Energy International Limited and Addax Petroleum International Limited, 2008, Article 6 (2).

<sup>4</sup> The Kurdistan Regional Government Model PSC, Article 6 (2).

<sup>5</sup> The Kurdistan Regional Government Model PSC, Article 6 (3).

<sup>6</sup> The Kurdistan Regional Government Model PSC, Article 6 (8).

exploration period and the contractor considers that a discovery of petroleum is a commercial discovery, the contractor has the exclusive right to develop and produce such commercial discovery.<sup>1</sup> The development period is 20 years with an automatic extension of 5 years. The Taq Taq and Kewa Chirmila Areas PSC states that “[t]he Development Period for a Commercial Discovery of Crude Oil and any associated Natural Gas from the Kewa Chirmila Contract Sub-area shall be twenty (20) years commencing on the Commercial Discovery ... with an automatic right to a five (5) year[s] extension.”<sup>2</sup> The contractor only in the event of a commercial discovery can recover its initial investments and petroleum costs. So, if there is no commercial discovery, there shall not be recover cost.<sup>3</sup>

According to the KRG Model PSC, the contractor, during the period of the contract, shall be responsible to the KRG for executing petroleum operations. Only petroleum shall be included from the scope of the contract; on the contrary, other natural resources shall be excluded, even if the contractor discover any such resources when performing its obligations.<sup>4</sup> Furthermore, the ‘Minimum Exploration Work Obligation’ provisions of the KRG’s Model PSC, oblige the contractor to start exploration activities in 30 days of approval of the exploration work program and budget; also, during the first sub-period, carry out geological and geophysical studies, data search, acquire seismic data within agreed contract area and drill the first exploration well by specified minimum financial amount of US\$. If the results from the first exploration well requests further seismic data and drilling more wells, the contractor shall acquire further seismic data and drill the second exploration well by specified minimum financial amount of US\$, during the second sub-period.<sup>5</sup>

By including relinquishment (also called surrender) provisions, the IOC will be obligated to release portions of the contractual area in phases, if they do not find commercial petroleum successfully. However, if they discover commercial petroleum in areas, then they keep those areas for the rest of petroleum development activities and relinquish the undiscovered area. Article 7 of the Kurdistan PSC for the Chia Surkh Block states that:

[T]he Contractor shall surrender portions of the Contract Area as follows:

- (a) at the end of the initial term of the Exploration Period referred to in Article 6.2, twenty five per cent (25%) of the net area ...
- (b) at the end of the first extension period entered into under this Contract after the end of the initial term of the Exploration Period referred to in Article 6.2, an additional twenty five per cent (25%) ...
- (c) at the end of the Exploration Period (including all extensions thereof), all of the remaining area that is not in a Production Area.<sup>6</sup>

More importantly, in terms of payment structure, as depicted in Figure 3, the Kurdistan Model PSC adopts a risk-reward type of method, containing a 10% of the total oil produced as royalty. A 40% of the net available oil (total oil produced minus royalty) is allocated to the contractor costs recovery and to offset their costs.<sup>7</sup> However, the arrangement of royalty and cost recovery percentages are more flexible when fields are estimated to hold a unique risk profile. The remaining 60% of the net available oil, called profit oil which is allocated between the KRG and the contractors, based on R-factor (cumulative revenue divided by cumulative cost). Profit oil share starts at 70% / 30% in favour of the KRG. When R-factor reaches 2, the profit split will be 85% / 15% in favour of the KRG.<sup>8</sup> Moreover, in most cases, direct cash bonuses are paid to the KRG.<sup>9</sup>

<sup>1</sup> The Kurdistan Regional Government Model PSC, Article 6 (10).

<sup>2</sup> The Kurdistan PSC for Taq Taq and Kewa Chirmila Areas, 2008, Article 6 (10).

<sup>3</sup> The Kurdistan Regional Government Model PSC, Article 2 (6).

<sup>4</sup> The Kurdistan Regional Government Model PSC, Article 2 (4 and 5).

<sup>5</sup> The Kurdistan Regional Government Model PSC, Article 10 (1-3).

<sup>6</sup> The Kurdistan PSC for Chia Surkh Block between the Kurdistan Region of Iraq and Forbes & Manhattan (Kurdistan) Inc. and PetOil Petroleum and Petroleum Products International Exploration and Production Inc. and Genel Energy International Limited, 2009, Article 7(1).

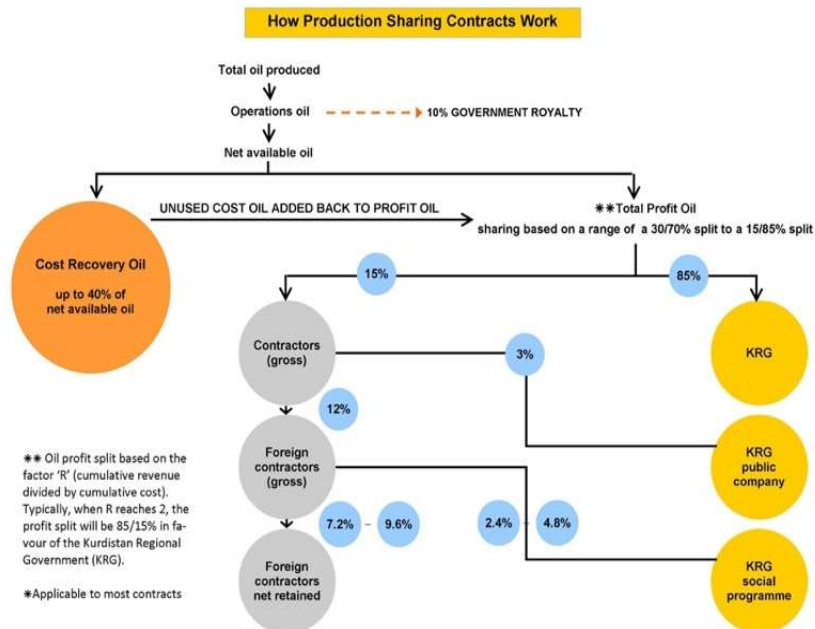
<sup>7</sup> Ministry of Natural Resources, ‘A New PSC’ <<http://mnr.krg.org/index.php/en/the-ministry/contracts/new-psc>> accessed 12 January 2020.

<sup>8</sup> The Oil and Gas Year, *The Oil and Gas Year: Kurdistan Region of Iraq 2011*, op. cit., p. 73.

<sup>9</sup> Mills, *A Rocky Road: Kurdish Oil & Independence*, loc. cit.



Figure 3: How the Typical KRG's Production Sharing Contracts Work



Source: Ministry of Natural Resources, 'A New PSC' <<http://mnr.krg.org/index.php/en/the-ministry/contracts/new-psc>> accessed 12 January 2020.

Pursuant to the Model PSC, the KRG shall through a public company duly authorised by the Government have the option of participating in the contracts as a contractor entity, in respect of the entire contract area of up to [ ]\* per cent (usually 20% to 25%) and not less than five per cent which called government interest. Such option being referred to herein as the 'Option of Government Participate'.<sup>1</sup> A public company can assign a part of government interest or all of it to a third party or parties which are not being a public company.<sup>2</sup> In the KRG Model PSC, there is also the 'Option of Third Party Participation' provisions; under which the KRG has the option of nominating a third party, as a contractor entity, of up to [ ] per cent (usually 25% or more) and not less than five per cent.<sup>3</sup> According to 'Option of Third Party Participation' provisions of Kurdistan PSC for the Dohuk Block signed in 2008, the government has the option of assigning an interest in the contract to a third party or third parties called 'Third Party Interest' by 40%.<sup>4</sup> Thereby, in 2009, the KRG amended the mentioned contract, used the third party participation option, assigned a 40% of the contract working interest to Genel Energy International Limited.<sup>5</sup>

The Kurdistan PSCs also contain several provisions that demand accountability by the contractors to the KRG. According to the KRG Model PSC, all contractor must keep copies of accounts\* in its offices in the Kurdistan Region. However, during the exploration period, the contractor shall keep the accounts at its headquarters abroad. The accounts shall be saved for a period of five years and prepared in the English language as well as kept in dollars. The contractor shall submit a summary statement of all petroleum costs incurred to the government, within 90 days following the end of each calendar year. The government has the right to request an audit of the accounts

\* It can be notified that in most cases, model contracts contain a number of blank square brackets, like this[ ]. The square brackets usually indicate a variable per cent of working interest, amount of money or any other variations; whereby contractual parties can have agreement on any per cent or amount, depending on negotiations.

<sup>1</sup> The Kurdistan Regional Government Model PSC, Article 4 (1).

<sup>2</sup> The Kurdistan Regional Government Model PSC, Article 4 (6).

<sup>3</sup> The Kurdistan Regional Government Model PSC, Article 4 (8).

<sup>4</sup> The Kurdistan PSC for Dohuk Block between the Kurdistan Regional Government of Iraq and DNO Iraq AS, 2008, Article 4(6).

<sup>5</sup> Assignment, Novation and Amendment Agreement relating to the Assignment of the Third Party Interest under the Production Sharing Contract relating to the Dohuk Block between the Kurdistan Regional Government of Iraq and DNO Iraq AS and Genel Energy International Limited, 2009, Article 3(4) b.

\* Accounts usually refer to all books and accounts of all revenues regarding the petroleum operations and all petroleum costs.

in audit request period which is two calendar years following the end of such calendar year or at any time in the case of manifest error or fraud.<sup>1</sup> The contractor also provide production statements and reports to the government as required.<sup>2</sup>

#### 4. Conclusion

The operating activities of the petroleum sector, which must take place to extract oil and gas resources from the ground and transform them into saleable oil and gas, need a large amounts of money and high levels of experience and technology that cannot be provided exclusively by most States or public companies. Therefore, concluding a the petroleum contract, with one or various foreign companies is necessary, through which the rights and obligations of parties shall be determined. This study has demonstrated that there are various classifications for the main exploration and production oil and gas contracts, in order to regulate the relations between the host State and the IOCs. However, this Study divided petroleum exploration and production contracts into four main types, which are concession contract, service contract, production sharing contract and joint venture agreement.

The oldest form of petroleum contracts is concession contract, which sometimes called license or tax/royalty system. Concession contract first developed in the USA in the 1800s and is still the most widely practised contract system throughout the world. There are mainly two types of concession contracts: traditional concession and modern concession. Through traditional concessions, the host State grants exclusive rights to the contract holder to explore, search, and drill for, develop, produce, store, sell and export petroleum resources for a specific long period of time, normally 60-90 years, in a specific broad territory (sometimes over the whole country) which were the main concerns of the traditional concessions. In this type of contract, the oil companies bear all risks and funds of all operations; when hydrocarbons are produced, the host State receives royalties and taxes on income earned from petroleum operations. Besides, modern concession, due to including various combinations of a royalty, an income tax and a resource rent tax, is also known as Royalty/Tax Systems. In the modern concessions, the main concerns of the traditional concessions have been rebalanced; the scope of grant in narrowly defined, they have granted for a shorter period of time, the geographical area has reduced, royalty and taxes have increased, local content obligations have added. In several circumstances, they may include a signing bonus, exploration fee, operation profit percentage, and some control by the host Sate, through a NOC, over the management and exploration of its petroleum reserves.

Service contract which also called service agreement, has developed and adopted in many countries, such as Saudi Arabia, Kuwait, Iran, Venezuela, Iraq, Bolivia, Ecuador, Turkmenistan and Mexico. The host States use this type of contract to gain IOCs' capacity, expertise and capital by granting exploration and production of their petroleum within a specified area for a pre-determined fee or shares the oil produced, without handing over the ownership rights of field and production to IOCs. The IOC works as a contractor under the direct supervision of the host State. As adopted in this study, there are four types of service contracts: pure service contract, risk service contract, technical service contract and buy-back contract.

In a pure service contract, the IOC is brought in to carry out a defined and specific service under the supervision of the host State, paid a flat fee and bears no exploration cost as well as no risks other than ability and willingness of the country to pay; the host State shoulders all risks. In risk service contracts, however, the host State assumes no risks, the IOC bears all the exploration and development oil and gas resources' costs and risks. Therefore, if the oil and gas not found, the contract would end by itself. Nevertheless, if the oil and gas successfully produced, the IOCs will be reimbursed the cost of investment and received compensation or remuneration based on their agreed contract. In this type of contract, the main risk is exploration risk which distinguished risk service contract from pure service contract. The technical service contract is currently used in Iraq. According to this contract, the IOC is only engaged to provide a well-defined technical services and in return it receives a fixed compensation. In the technical service contract, unlike the other service contracts, the company has no right to obtain a share of the resource and the host State is the strongest party. Additionally the Iran's favoured type of oil contract, the buy-back contract, is the last type of service contract. In buy-back contract, an IOC funds and provides all necessary plant, equipment and other assets for exploration or/and development of field; and is repaid capital expenditure, interest charges and a fixed agreed rate of return through the sale of the produced oil or gas, also the IOC has a right to buy the oil or gas. When the contract is over, the IOC must transfer all land and facilities to host State or its national oil company.

<sup>1</sup> The Kurdistan Regional Government Model PSC, Article 15 (1-3).

<sup>2</sup> The Kurdistan Regional Government Model PSC, Article 15 (8).

Furthermore, PSCs are the most common type of oil and gas contract and in their current form, they were successfully applied in 1960s in Indonesia. The PSCs could be either for exploration, development and production or only for development and production of a certain field. In this type of contract, commonly the ownership of the natural resources rests with the host State, however, it permits the IOCs (typically involve NOC or government agency of the host State) to manage and operate the development of the oil field at the same time. Hence, the IOC at his own cost and risk, explores, develops and produces petroleum resources for a specified period of time. In return, the State rewards the IOCs with a share of the petroleum resources. Accordingly, after success exploration of oil and gas, IOCs pay an agreed amount of royalty to the host State, and then, they can recover their cost oil. After recovering cost oil, the profit oil will be shared between parties according to a predetermined scheme. Also, the IOCs has to pay taxes on their oil profits in respect of its share of profit oil, according to the provisions of the host States' legislations. It is clear that the most significant distinction between concessions contracts and PSCs is the treatment of production. However, the method of compensation is the most significant distinction between service contracts and PSCs and also they differ in field and produced crude ownership rights, field's operatorship, and the degree of bearing risks by each side

In terms of joint venture agreements, there are disagreements in the literature as to whether it should be regarded as a type of contract. Several authors state that joint venture is not a type of fiscal/contractual system, it is arrangement whereby national companies enter in partnership with contractors rather than types of contracts. However, according to many authors and as it has adopted in this study, the joint venture is commonly a type of petroleum contracts. Under joint venture contract, a combination of two or more parties is established between the IOC(s) or investor(s) and the host State, in order to jointly engage in oil and gas exploration, development and production activities. There are two categories of the joint venture agreement: incorporated joint ventures and unincorporated joint ventures. Incorporated joint venture is creation of a jointly owned company incorporated in the host State, with a separate legal entity. However, unincorporated joint venture is executed on the basis of contract alone, without the establishment of a separate legal entity and it is commonly practiced in the petroleum industry. In a joint venture, the host State would expect to receive profit oil, royalties, taxes which shared by the involved parties. However, it contributes to the operations costs and bears a share of operations costs, unless it takes a 'carried' interest. Additionally, the parties of the joint venture set out the terms of their joint participation and detail by drawing a joint operating agreement.

The analysis in this study has shown that the KRG extremely has relied on fair and flexible PSCs to attract international companies and to encourage the development of Kurdistan's oil and gas sector. The KRG Model PSC was published on 29<sup>th</sup> June 2007. This study has also successfully shown that the KRG has signed about 60 PSCs with IOCs by individual, bilateral negotiations, not formal bid rounds, common tenders or auctions. The KRG, as exceptions, has also signed two service contracts, with a fixed rate of return, for Khor Mor and Chemchemal blocks with Dana Gas and Crescent petroleum (the Pearl Petroleum consortium).

The Kurdistan's PSCs, include several common articles/clauses, which contain a number of provisions that intend to regulate relations between the KRG and IOCs. Pursuant to provisions of the KRG's Model PSC, exploration period is five years and it can be extended to two more years. Also, development period is 20 years with an automatic extension of 5 years, and there is possibility of further extensions to be negotiated. During the period of the contract, the contractor shall conduct all petroleum (only petroleum, no other natural resources) operations within the contract area; and if there is no commercial discovery, there shall not be recover cost. Also, under 'Minimum Exploration Work Obligation' provisions, the IOCs shall start exploration activities in 30 days of approval of the exploration work program and budget; to carry out geological and geophysical studies, data search, acquire seismic data; and to drill several wells during exploration and development period. According to 'Relinquishment' provisions of the Kurdistan PSCs, the IOCs are obligated to release portions of the contractual area in phases.

The Model PSC contains a 10 percent of the total oil produced as the royalty. After paying royalty, a 40 percent of the net available oil is allocated to the contractor costs recovery. The remaining 60% of the net available oil is shared between the KRG and the operators (stakeholders) based on 'R' factor. Moreover, according to KRG's Model PSC, direct cash bonuses shall be paid to the KRG. Additionally, in most Kurdistan signed PSCs, there are 'Option of Government Participate' provisions whereby the KRG through a public company has the option of participating in the contracts as a contractor entity, usually by 20% to 25% interest. However, the KRG does not pay exploration costs but has the right to take a share in a commercial discovery. The most Kurdistan PSCs include the 'Option of Third Party Participation' provisions, under which the KRG has the option of assigning an interest in the contract to a third party or third parties. Finally, the Kurdistan PSCs demand that all contractors must keep

copies of accounts (all books and accounts of all revenues regarding the petroleum operations and all petroleum costs) in its offices in the Kurdistan Region and save for a period of five years.

## References:

### Books and Chapters from Edited Books:

- Adyani, S A, *Legal and Contracts of Oil and Gas* (in Persian) (Majd, Tehran 2015).
- Aghion, P and Quesada, L, 'Petroleum Contracts: What Does Contracts Theory Tell Us?' in W Hagan and F Sturzenegger (eds), *The Natural Resources TRAP*, (MIT Press, Cambridge, Mass 2010).
- Boykett, T and others, *Oil Contracts: How to Read and Understand a Petroleum Contract* (OpenOil/Times Up Press, Linz 2012).
- C Frappi, 'The Energy Factor: Oil and State-Building in Iraqi-Kurdistan' in S M Torelli (ed) *Kurdistan an Invisible Nation* ( ISPI, Milano 2016) p. 91-122.
- Cameron, P D and Stanley, M C, *Oil, Gas, and Mining: A Sourcebook for Understanding the Extractive Industries* (World Bank Group, Washington, Dc 2017).
- Cameron, P D, *International Energy Investment Law: The Pursuit of Stability* (Oxford University Press, New York 2010) .
- Chandler, J A P, *Petroleum Resource Management: How Governments Manage Their Offshore Petroleum Resources* (Edward Elgar Pub, Cheltenham 2018).
- Comeaux, P E and Kinsella, N S, *Protecting Foreign Investment Under International Law: Legal Aspects of Political Risk* (Oceana Publication, Inc., Dobbs Ferry, New York 1997).
- Cotula, L, *Investment Contracts and Sustainable Development: How to Make Contracts for Fairer and more Sustainable Natural Resource Investments* (International Institute for Environment and Development (IIED), London 2010).
- Easo, J and Ashurst LLP, 'Licences, Concessions, Production Sharing Agreement and Service Contracts' in G Picton-Turbervill (ed), *Oil and Gas: A Practical Handbook* (Sian O'Neill/Global Business Publishing Ltd, London 2009) p.27-41.
- Ghorbanyan, H and Shafei Khah, M, *The Legal System Ruling on Oil Contracts* (in Persian) (Majd, Tehran 2016) .
- International Institute for Environment and Development (IIED), *How to Scrutinise a Production Sharing Agreement* (IIED, London 2012).
- Johnston, D, *International Petroleum Fiscal Systems and Production Sharing Contracts* (PennWell Books, Tulsa, 1994).
- Mikesell, R F, *Petroleum Company Operations and Agreements* (Routledge Revivals, New York 2015).
- Moran, S, 'Analysis of International Oil and Gas Contracts' in R Steinmetz (eds) *The Business of Petroleum Exploration* (The American Association of Petroleum Geologists, Tulsa, Oklahoma 1992).
- Naseem, M, and Naseem, S, 'World Petroleum Regimes' in K Talus (ed) *Research Handbook on International Energy Law* (Edward Elgar, Cheltenham 2014) p. 149-181.
- Olawuyi, D S, *Extractives Industry Law in Africa* (Springer Nature Switzerland AG, Cham 2018).
- Pereira, E G and Hall, K, *Joint Operating Agreement: Operatorship Role, Options and Concerns/MarLus nr. 486* (Sjørettsfondet/Univrity of Oslo, Norway 2017).
- Radon, J and Logan, S, 'National Oil Companies in the Middle East and North African: Remaining Relevant in a Changing World' Working Paper No. 1072 (The Economic Research Forum, Giza 2016) .
- Radon, J, 'The ABCs of Petroleum Contracts: License-Concession Agreements, Joint Ventures, and Production-sharing Agreements' in S Tsalik and A Schiffrin (eds), *Covering Oil: A Reporter's Guide to Energy and Development* (Open Society Institute, New York 2005) .
- Rahimi, F, *The Law of Oil & Gas Contracts: The Development of Iran's International Oil Contracts* (in Persian) (Ganje Danesh Publication, Tehran 2016) .
- Sarir, F, *Development of Upstream Petroleum Contracts of Iran from the Beginning until Now: A Legal and Contractual Perspective* (in Persian) (Majd, Tehran 2015).
- Shiravi, A, *Oil and Gas Law* (in Persian) (3<sup>rd</sup> edn Mizan Legal Foundation, Tehran 2016).
- The Oil and Gas Year, *The Oil and Gas Year: Kurdistan Region of Iraq 2009* (Wildcat Publishing Inc., Neuilly Seine 2009) .
- The Oil and Gas Year, *The Oil and Gas Year: Kurdistan Region of Iraq 2013* (Wildcat International FZ-LLC, Neuilly Seine 2013) .
- The Oil and Gas Year, *The Oil and Gas Year: Kurdistan Region of Iraq 2011* (Wildcat International FZ-LLC, Neuilly Seine 2011).
- Tordo, S Johnston, D and Johnston, D, *Petroleum Exploration and Production Rights: Allocation Strategies and Design Issues: World Bank Working Paper No. 179* (The World bank, Washington D.C. 2010).

Zedalis, R J, *The Legal Dimensions of Oil and Gas in Iraq: Current Reality and future Prospects* (Cambridge University Press, New York 2009).

#### Journal Articles:

- Abraham, K K A, 'Contractual Agreements in Ghana's Oil and Gas Industry: In Whose Interest?' (2017) 8 (2) Journal of Sustainable Development Law and Policy 186-208.
- Artono, H B, 'Dispute Resolution in the Case of Production Sharing Contracts vs Tax Treaty: Case Study of Government of Indonesia vs Oil and Gas Contractors in Branch Profit Tax Issue' (2018) 59 Advance in Economics, Business and Management Research 108-113.
- Blitzer, C R, Lessard, D R and Paddock, J L, 'Risk-Bearing and the Choice of Contract Forms for Oil Exploration and Development' (1984) 5 (1) The Energy Journal 1-28. DOI: [10.5547/ISSN0195-6574-EJ-Vol5-No1-1](https://doi.org/10.5547/ISSN0195-6574-EJ-Vol5-No1-1).
- Elshazly, M I, 'The Legal and Contractual Framework Pertaining to the Exploration and Production of Shale Gas in Egypt' (2015) 8 (4) Journal of World Energy Law & Business 385-390. DOI: [10.1093/jwelb/jwv016](https://doi.org/10.1093/jwelb/jwv016).
- Ghandi, A and Cynthia Lin, C Y, 'Is Resource Nationalism on the Rise? Evidence from Service Contracts in Eight Countries' (2015) First Quarter, International Association for Energy Economics 35-37.
- Gonzalez-Canales, E, 'Mexican Energy Law: Industry Renaissance or Chronicle of a Death Foretold: Part 1: Husna, C A, Hastuti, L and Prihandono, I, 'Adaptation of Contract Models of Oil and Gas: A Comparative Study' (2017) 1 (1) Hang Tuah Law Journal 56-75. DOI: [10.30649/htj.v1i1.9](https://doi.org/10.30649/htj.v1i1.9).
- Idubor, R, Asada, D and Adefi, O M, 'Appraising Taxation and the Nigerian Oil Industry' (2015) 37 Journal of Law, Policy and Globalization 188-197.
- Kaiser, M J and Pulsiper, A G, 'A Review of the Oil and Gas Sector in Kazakhstan' (2007) 35(2) Energy Policy 1300-1314. DOI: [10.1016/j.enpol.2006.03.020](https://doi.org/10.1016/j.enpol.2006.03.020).
- Likosky, M, 'Contracting and Regulatory Issues in the Oil and Gas and Metallic Minerals Industries' (2009) 18 (1) Transnational Corporations 1-42. DOI: [10.18356/d3e73f33-en](https://doi.org/10.18356/d3e73f33-en)
- Muttitt, G, 'Production Sharing Agreements – Mortgaging Iraq's Oil Wealth' (2006) 28 (3/4) Arab Studies Quarterly 1-17.
- Nejad, R H, Manzoor, D and Amani, M, 'Economic Evaluation of Fiscal Regime of Buy-Back Contracts in Comparison with Production Sharing Contracts (Case Study: Azadegan Oil Field)' (2018) 22(2) Iranian Economic Review 579-598. DOI: [10.22059/IER.2018.66167](https://doi.org/10.22059/IER.2018.66167).
- Okoli, C S A, 'Production Sharing Agreements and Licences: A Distinction Without a Difference?' (2012) 282 International Energy Law Review 1-5. DOI: [10.2139/ssrn.2171506](https://doi.org/10.2139/ssrn.2171506).
- Roach, B and Dunstan, A, 'The Indonesian PSC: The End of an Era' (2018) 11(2) The Journal of World Energy Law & Business 116-135. DOI: [10.1093/jwelb/jwy001](https://doi.org/10.1093/jwelb/jwy001).
- Saidu, S and Sadiq, H A, 'Production Sharing or Joint Venturing: What Is the Optimum Petroleum Contractual Arrangement for the Exploitation of Nigeria Oil and Gas?' (2014) 2 (2) Journal of Business and Management Sciences 35-44. DOI: [10.12691/jbms-2-2-2](https://doi.org/10.12691/jbms-2-2-2).
- Salih, M S and Salih, R S, 'Legal Protection for Confidential Information in International Oil and Gas Contracts' (2017) 6 (21/ part 1) Journal of College of Law for Legal and Political Sciences 382-419.
- Salih, M S and Salih, R S, 'Strategy of Oil Contract Negotiation' (2015) 6(9) International Journal of Business and Social Science 168-175.
- Salih, R S and Salih, M S, 'Compare and Contrast Offtake Agreements and Concession Agreements' (2017) 57 Journal of Law, Policy and Globalization 11-21.
- Salih, R S and Yamulki, A, 'Reforms Feasibility in Kurdistan Region Petroleum Contracts, Triggered by the New Regional Blocks Divisions' (2020) 11(5) International Journal of Business and Social Science 35-56. DOI: [10.30845/ijbss.v11n5a5](https://doi.org/10.30845/ijbss.v11n5a5).
- Smith, E E, 'International Petroleum Development Agreements' (1993) 8 (2) Natural Resources & Environment 37-39, 61-63.
- Upstream Ventures in Mexico' (2015) 8 (1) The Journal of World Energy Law & Business 45-75. DOI: [10.1093/jwelb/jwu038](https://doi.org/10.1093/jwelb/jwu038).
- Yúnez, A I and Chapa, F F, 'Oil Risk Contracts, Business Conduct and Performance Patterns: Data Penal Analysis' (2017) 62(5) Contaduría y Administración 1538-1552. DOI: [10.1016/j.cya.2017.10.003](https://doi.org/10.1016/j.cya.2017.10.003).

#### Conference Articles:

- Da Silva, C V and Bonolo, D D, 'Unitization Involving Non Contracted Area: Comparison Between Contractual Models' (2017) The Offshore Technology Conference Brasil, Barazil, Rio de Janeiro 24-26 October 2017.
- Ikwana, U And Iledare, W, 'Fiscal Policies in Oil and Gas Sector: Quantitative Assessment of impact of Royalty Terms on Proved reserves Estimation' The Nigeria Annual International Conference and Exhibition, Lagos, Nigeria, 2-4 August 2016.



Iledare, O and Fubara, S A, 'Pragmatic Joint Venture Financing Options in Nigeria: Implications on Economic Metrics and Government Take Statistics' The Nigeria Annual International Conference and Exhibition, Lagos, Nigeria, 31 July – 2 August 2017.

#### **PhD and Master Theses:**

- Adam, I S, 'An Empirical Investigation of the Efficiency, Effectiveness and Economy of the Nigerian National Petroleum Corporation's Management of Nigeria's Upstream Petroleum Sector' PhD Thesis (Gordon University, 2015).
- Efstathios, M, 'Types of Contracts Used in the Upstream Oil Industry and Related Issues' Master Thesis (International Hellenic University, 2018).
- Kakhki, M M H, 'A Critical Analysis of Iranian Buy-Buck Transactions in the Context of International Petroleum Contractual Systems' PhD Thesis (University of Durham, 2008) .
- Mucci, S A, 'Managing Political and Investment Risk in the International Oil and Gas Industry' PhD Thesis (University of Missouri-St. Louis, 2015) .
- Nyika, E, 'Stabilization of Petroleum Fiscal Regime in Relation to Production Sharing Agreement in Tanzania: Challenges and Prospects' PhD Thesis (University of Aberdeen, 2017) .
- Salih, M S, 'An Investigation into the Legality and Revenue Maximisation Potential of Iraqi Kurdistan's Petroleum Contracts' Master Thesis (University of Wolverhampton, 2013).
- Salih, R S, 'Legal Protection for International Contractual Investors Against Political Risk in the Iraqi Kurdistan Oil and Gas Industry' Master Thesis (University of Wolverhampton, 2013).
- Yacoub, L A, 'Reconstructing the Governance of Iraqi Oil (2003-2013): Distribution of Oil Revenues Among Kurdistan and Iraq's Provinces' PhD Thesis (The University of Sheffield, 2015).

#### **Papers:**

- Mills, R, *A Rocky Road: Kurdish Oil & Independence*, Paper Number: IEI190218 (Iraqi Energy Institute, Baghdad 2018).
- Nakhle, C, 'Towards Good Governance of the Oil and Gas Sector in the MENA' Paper No. 18 (United Nations, Beirut, 2017).
- Saidov, D, 'The Standardisation of Oil and Gas Law: Transnational Layers of Governance' CML Working Paper Series, Paper No. 17/10 (2017).

#### **Electronic Resources:**

- IMDB, 'King Faisal I: Biography' <[https://www.imdb.com/name/nm0454372/bio?mode=desktop&ref=m\\_ft\\_dsk](https://www.imdb.com/name/nm0454372/bio?mode=desktop&ref=m_ft_dsk)> accessed 15 December 2019.
- Ministry of Natural Resources, 'A New PSC' <<http://mnr.krg.org/index.php/en/the-ministry/contracts/new-psc>> accessed 12 January 2020.
- Ministry of Natural Resources, 'Doing Business Upstream' <<http://mnr.krg.org/index.php/en/doing-business-kurdistan/upstream>> accessed 5 January 2020.
- Ministry of Natural Resources, 'KRG Publishes Final Kurdistan Region Draft Oil Law, Model Contract, Exploration Blocks' <<http://mnr.krg.org/index.php/en/press-releases/114-krp-publishes-final-kurdistan-region-draft-oil-law-model-contract-exploration-blocks>> accessed 3 January 2020.
- Ministry of Natural Resources, 'PSCs Signed' <<http://mnr.krg.org/index.php/en/the-ministry/contracts/pssc-signed>> accessed 5 January 2020.
- Openoil, 'Iraq Oil Almanac: An OpenOil Reference Guide' <<http://openoil.net/wp/wp-content/uploads/2012/08/Iraq-Oil-Almanac-English-PDF.pdf>> accessed 20 December 2019.
- Paliashvili, I, 'The Concept of Production Sharing' <[http://www.rulg.com/documents/The\\_Concept\\_of\\_Production\\_Sharing.htm](http://www.rulg.com/documents/The_Concept_of_Production_Sharing.htm)> accessed 25 December 2019.
- Rosneft, 'Operating Results for Q3 and 9M 2017' <<https://www.rosneft.com/press/releases/item/188603/>> accessed 6 January 2020.
- Thomas, A R, 'Overview of Oil and Gas Contract' <[http://levin.urban.csuohio.edu/epc/docs/Oil\\_and\\_Gas\\_Contracts.pdf](http://levin.urban.csuohio.edu/epc/docs/Oil_and_Gas_Contracts.pdf)> accessed 29 December 2019.

#### **Table of Statutes:**

Oil and Gas Law of the Kurdistan Region – Iraq No. (22) of 2007.

---

**Table of Contracts:**

Assignment, Novation and Amendment Agreement relating to the Assignment of the Third Party Interest under the Production Sharing Contract relating to the Dohuk Block between the Kurdistan Regional Government of Iraq and DNO Iraq AS and Genel Energy International Limited, 2009.

The Kurdistan PSC for Chia Surkh Block between the Kurdistan Region of Iraq and Forbes & Manhattan (Kurdistan) Inc. and PetOil Petroleum and Petroleum Products International Exploration and Production Inc. and Genel Energy International Limited, 2009.

The Kurdistan PSC for Dohuk Block between the Kurdistan Regional Government of Iraq and DNO Iraq AS, 2008.

The Kurdistan PSC for Taq Taq and Kewa Chirmila Areas between the Kurdistan Region of Iraq and Genel Energy International Limited and Addax Petroleum International Limited, 2008.

The Kurdistan Regional Government Model PSC.