Oil and Gas – Level 2

Developed by

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Handbook Overview

The Level 2 Oil & Gas Course Handbook will focus on developing your understanding of, and ability to, negotiate Production Sharing Agreements as well as other agreements relevant to oil and gas transactions. It will also further develop your knowledge in key related areas, such as corporate and social responsibility, resource management and the environment. The final course chapters will provide a detailed understanding of dispute resolution, with a focus on arbitration. In addition to this handbook, you will need to watch the video presentations on the material covered here, which are accompanied by short quizzes to assess your knowledge of the material presented to you. Lastly, be sure to look at the footnotes in each chapter. These footnotes will not only contain citations but are also helpful resources for you to use or refer to throughout your daily work.

Following the completion of this second level course, you as a company lawyer or government lawyer should be able to draft, mark-up and negotiate key oil and gas agreements (in particular the Production Sharing Agreement), have a clear understanding of how disputes are addressed and solved, along with today's major issues in oil and gas upstream and midstream across the globe. We attempt to ensure that public and private sector interests are represented and explained throughout the handbook so that you are equipped to represent and/or appreciate either side effectively.

The course book is divided into eight chapters, each covering a different set of essential material. We have given African perspectives, as well as those of other oil and gas regions to further build your knowledge and understanding of the global oil and gas industry, to equip you to effectively and efficiently develop your country's resources.

Chapter 1 focuses on providing an overview of the industries as a preamble to pre-contractual arrangements, such as international project development risks, stakeholders, legal frameworks, international granting instruments, granting processes and government participation.

Chapter 2 is a study of the Production Sharing Agreement ("PSA"). It gives an overview of PSAs used around the world and takes a close look at the common terms, including contract area, relinquishment, duration & termination, discovery, development, measurement & valuation, ownership of assets, allocation of production, and force majeure, among others.

Chapter 3 concentrates on ten key areas of Production Sharing Agreements that are required to be drafted and negotiated with particular care, safeguarding against costly and time-consuming disputes. These areas can seriously and negatively affect commercial investments and the monetisation of a state's resources. Some terms examined include compliance with the minimum work programme, local content, anti-corruption, transparency and accountability, use of infrastructure, decommissioning and export and sales of production, among others.

Chapter 4 looks at other common agreements in oil and gas transactions. These include the Non-Disclosure Agreement (NDA), Joint Study and Bid Agreements (JSBA), Joint Operating Agreements (JOAs),

Unitization and Unit Operating Agreements (UUOA), and Service contracts. This chapter also considers alternative forms of financing arrangements, such as Islamic finance and reserve-based lending.

Chapter 5 shifts attention from upstream issues to midstream and downstream issues. Topics covered include the transportation of oil and gas, oil and gas processing (refining oil and gas), storage of oil and gas, liquefied natural gas (LNG) vs. pipeline gas, and an overview of oil pipelines and relevant agreements and their constituent provisions (e.g., transportation agreements, storage agreements, etc.).

Chapter 6 looks at broader environmental and social risks related to oil and gas operations. This topic has become increasingly important as local, national, and international laws continue to evolve to manage these risks. Consequently, this chapter will discuss environmental baseline assessments, mitigation measures, management plans, monitoring, emergencies, releases, and national and international liabilities.

Chapter 7 explores some of the main options available in relation to disputes that arise and further provides general guidance on how disputes are handled in oil and gas projects. This includes, highlighting key dispute resolution tools (e.g., mediation, independent experts, arbitration, litigation) and key provisions such as governing law and arbitration agreements.

Chapter 8 focuses solely on arbitration given its importance in the sectors. This includes discussions regarding the use of commercial arbitration, and the differentiated processes also involved in investment disputes. The also chapter examines the significance and development of African arbitration law, relevant regional and international institutions, arbitral rules, processes and procedures and enforcement of awards.

We hope you enjoy using this course handbook and we wish you the very best of luck in your career whether you are just starting or are an experienced professional looking to build upon your knowledge base of the petroleum industry.

In 1859 the human race discovered a huge treasure chest in its basement. This was oil and gas, a fantastically cheap and easily available source of energy.

- Kenneth E. Boulding

CHAPTER 1: Dynamics of the Oil and Gas Industry

This chapter outlines the key issues related to bid rounds procedures. These procedures and the signature of the relevant Host Granting Instrument (HGI) will precede the exploration and production stage of oil and gas resources. The procedures are established through a legal framework that is designed to protect national interests and attract domestic and foreign investments. Finally, this chapter considers petroleum legal regimes available today as an HGI and some other common issues arising out of the relation-

1. Understanding Risks & Rewards: Negotiations & Bid Process[1]

1.1. International Project Development Risks

In petroleum activities, all stakeholders will in some way bear risks as there is no certainty about the existence nor commerciality of oil and gas resources. However, exploration risks are typically borne by investors. Nevertheless, before both the allocation of rights to a party and the extensive investments by that party, the relevant stakeholders should consider a number of issues.

In a simple form, these issues fall into two categories: (1) below the ground risks and (2) above the ground risks. Below the ground risks include geological and technical matters. We will not explore the details of these risks as they fall beyond the scope of this Handbook. In summary, however, above the ground risks require a more thorough examination and include the following: (a) Stakeholder issues; (b) Political risks; (c) Security risks; (d) Socio-economic risks; (e) Environmental risks; (f) Commercial risks; (g) Legal risks; and (h) Financial risks.

[1] For further information about host granting instruments see: Eduardo G. Pereira (ed.), *The Encyclopedia of Upstream Oil and Gas Law* (2nd edn Globe Law and Business 2019), Eduardo G. Pereira, Kim Talus (eds.), *Upstream Law and Regulation: A Global Guide Volume 1 – Africa and the Americas* (2nd edn Globe Law and Business 2017), Eduardo G. Pereira, Kim Talus (eds.), *Upstream Law and Regulation: A Global Guide Volume 2 – Europe, Middle East, Asia and Australia* (2nd edn. Globe Law and Business 2017), G Gordon, J Paterson & E Üşenmez (eds), *UK Oil and Gas Law: Current Practice and Emerging Trends: Volume 1: Resource Management and Regulatory Law* (3rd edn, Edinburgh University Press, Edinburgh 2018), G Gordon, J Paterson & E Üşenmez (eds), *UK Oil and Gas Law: Current Practice and Emerging Trends: Volume 2: Commercial and Contract Law Issues* (3rd edn, Edinburgh University Press, Edinburgh 2018), Smith, Ernest, et al, *International Petroleum Transactions* (4th edition Rocky Mountain Mineral Law Foundation, Colorado 2010), Eduardo G. Pereira, Henrik Bjornebye (eds), *Regulating Offshore Petroleum Resources: The British and Norwegian Models* (Edward Elgar 2019), Bernard G. Taverne, *An Introduction to the Regulation of the Petroleum Industry: Law, Contracts and Conventions* (Graham & Trotman, London 1994), Bernard. G. Taverne, *Co-Operative Agreements in the Extractive Petroleum Industry* (Kluwer Law International, Hague 1996), Bernard. G. Taverne, *Petroleum, Industry and Governments: A study of the Involvement of Industry and Governments in the Production and Use of Petroleum* (2nd edn Kluwer Law International, Alphen aan den Rijn 2008), Chris Thorpe, *Fundamentals of Upstream Petroleum Agreements* (CP Thorpe, UK 2008), Erik Jarlsby, Eduardo G. Pereira, *International Petroleum Fiscal Regimes* (Pennwell 2019), Daniel Jonhston, *International Exploration Economics, Risk, and Contract Analysis* (Penwell, Tulsa 2003), Daniel Johnston, *International Petroleum Fiscal Systems and production sharing contracts* (Penwell, Oklahoma 1994), Ernest E. Smith and others, *International Petroleum Transactions* (3rd edn RMMLF, Westminster 2010), Henry Cattan, *The Evolution of Oil Concessions in the Middle East and North Africa* (Oceana, New York 1967), Khong Cho Oon, *The Politics of Oil in Indonesia: Foreign Company-Host Governments Relations* (CUP, Cambridge 2009), Martyn R. David, *Upstream Oil and Gas Agreements* (Sweet and Maxwell, London 1996), Muhammed Mazeel, *Petroleum Fiscal Systems and Contracts* (Diplomica Verlag, 2010 Hamburg), P.H. Frankel, *Essentials of Petroleum: A key to Oil Economics* (2nd Frank Cass, London 1976), Raymond F. Mikesell, *Petroleum Company Operations & Agreements in the Developing Countries* (Resources for the Future, Washington 1984), Terence Daintith, Geoffrey Willoughby (eds), Adrian Hill, *United Kingdom Oil & Gas Law* (3rd edn Sweet & Maxwell, London 2009), Thomas E. Ward, *Negotiations for Oil Concessions in Bahrain, El Hasa (Saudi Arabia), The Neutral Zone, Qatar and Kuwait* (Ardles, New York 1965), Thomas W. Walde (ed.) & George K. Ndi (ed.), *International Oil and Gas Investments, Moving Eastward?* (Graham & Trotman/Martinus Nijhoff, London 1994.

(a) Stakeholder Issues

Stakeholders are persons or groups who are directly or indirectly affected by a project, as well as those who may have interest in the project and/or the ability to influence its outcome, either positively or negatively. Stakeholders can include the following persons or groups:

- ***Host Government or the State Party***. The State Party in the HGI relationship can be represented by: The Host Government (HG) itself; the National Oil Companies (NOC); or governmental bodies that govern petroleum, energy and/or natural resources affairs (e.g., Ministry of Energy and Natural Resources or a National Petroleum Agency). HG's considerations will be examined further in this chapter.

- ***Oil & Gas Companies*** are the investors who will generally bear all or most of the financial risks related to the development of such oil and gas resources (if applicable).

- ***Local Communities*** are those communities whose area of residence or livelihood is one where a petroleum resource is situated and is inside the area of exploration and production or nearby. Local communities are most commonly affected by issues, such as environmental impacts resulting from Exploration and Production (E&P) activities, increased demand for goods and/or services, disruption of local economic activities, as well as developmental issues brought about by increased activities within the area. In the course of petroleum activities, working within local communities may require consultations and compensation for the affected groups or individuals. These types of issues constantly arise but also evolve in the context of the developments our modern societies.

- ***Indigenous People*** are ethnic groups that are the original historical inhabitants of the area or have been living in the particular area for several generations (for the purpose of this chapter – the area of petroleum exploration and production). There are overlapping issues and outcomes such as the need for consultations and compensation that arise when working within local communities and with Indigenous people.

- ***Landowners*** are persons who own the superficies/area above the sub-soil that is thought to or is known to contain the resources. In circumstances where the area for exploration and production falls within privately owned land it may be necessary to obtain permission from the private landowner in order to conduct the relevant activity; however, the requirement to seek permission will depend on the property laws and other related laws of the country in question. In any event, compensation for such access is routinely provided in some form.

- ***Other stakeholder issues*** may include commercial and subsistence fishing being affected by upstream activities carried out offshore; environmental issues due to air pollution and spills; and pipeline construction disturbing settlements and environments. For instance, oil and gas companies may face challenges and liabilities for environmental damage occurring in the course of operations. A good example of this is the well-known case concerning the Ogoniland in the

Niger Delta region of Nigeria,[2] In that case, liability was imposed on the international oil company (IOC) for the environmental damage caused to the community.

Stakeholder issues need careful and thoughtful handling and their management and involves two key stages: 1) assessment of social impacts, and 2) the engagement of stakeholders. A Social Impact Assessment is the process of identifying and managing and/or mitigating the social impacts of industrial projects. Simply defined, social impacts are the effects of developmental interventions on the human environment – both positive and negative.[3] The main idea of an effective social impact assessment is not only the identification of effects, but also the maximisation of the positive effects and mitigation of the negative effects. Examples of the social impacts being assessed include, but are not limited to, means to enhance equity and transparency of all parties; mechanisms to identify the social risks associated with the project; a framework for dialogue on development priorities among different levels of stakeholders; approaches to minimisation and mitigation of potential social risks, including adverse social impacts, of the development projects.

Stakeholder engagement is an essential part of risk management and allows for a more effective and comprehensive social impact assessment. The goal should be to identify relevant stakeholders who are directly or indirectly affected by the operation (including those who can influence the development projects) and planning of how to engage these parties. For IOCs, it is good practice to provide a stakeholder engagement plan that reflects, as a minimum, a commitment to corporate social responsibility, which, in turn, helps to establish a "social license to operate". Good corporate citizenship may reduce conflicts and negative reputational impacts, as well as reduce the time for obtaining approvals and negotiating agreements. Avoidance of conflicts logically leads to the reduction of costs associated with the resolution of these conflicts.

(b) Political Risks

Political stability is a factor of high importance in corporate decision-making for investments in petroleum projects. Both international and internal disputes can cause delay and losses in the development of projects. Taking land matters as a case example, an international oil company could consider: Which part of the land is in dispute? Is it community-owned or private? Is the whole part of the area in dispute? Could the disputed portion be separated without affecting the commerciality of the other area?[4] All these issues can cost the investor significant resources and therefore, should be considered and sought to be resolved prior to the investment decision. Other concerns in a project risk assessment are external threats, including sanctions and war. This will be explored in the next section in further detail.

One of the main political risks relates to the sanctity of the HGI terms and conditions. The sanctity of the terms and conditions may be subject to challenge often during political regime changes in the HG. A new

[2] In 2011, the United Nations Environmental Programme (UNEP) published an Environmental Assessment of Ogoniland, making several recommendations to Shell. See the Guardian <https://www.unenvironment.org/explore-topics/disasters-conflicts/where-we-work/nigeria/environmental-assessment-ogoniland-report> accessed 29 August 2020.

[3] A Comprehensive Guide for Social Impact Assessment (Centre for Good Governance) <http://unpan1.un.org/intradoc/groups/public/documents/cgg/unpan026197.pdf> accessed 15 March 2020.

[4] Marianthi Pappa and Eduardo G. Pereira, 'International Energy Investments and Unrecognized States: Opportunities and Risks for Private Actors' (2019) Colo. Nat. Resources, Energy & Envtl. L. Rev. 67, 114.

regime may introduce new applicable legislation or warrant renegotiation of HGIs. These are the types of risk scenarios that often influence investors to place significant weight on negotiating for the inclusion of stabilization clauses in the HGIs. Although there are variants of the stabilization clause (traditional and modern), the general purpose is to put in place an enforceable legal mechanism as a term of the contract or a HGI that protects the parties' positions as at the time of entering into the HGI or award of the concession. From an investor's standpoint, the aim of stabilization clauses is to safeguard the sanctity of the contract and stability of the HGI; *inter alia*, attempting to ensure that fiscal commitments under the investment agreements outlive the government that welcomed the venture and endures for the duration of the project.[5] For host governments, such stabilization mechanisms are usually regarded as highly problematic for several reasons, chief of which is the notion that the State is stripped of sovereignty, in particular permanent sovereignty over natural resources.[6] Despite this, some governments will usually accept some form of stabilization mechanism as a way of demonstrating that the state is an attractive investment destination. Nevertheless, it must be noted that broad disputes on the validity and effectiveness of stabilization clauses may surface; therefore their inclusion should not be taken to guarantee the stability of the HGI.[7]

Expropriation is another major concern for investors. There are two forms of expropriation: direct and indirect. Direct expropriation involves the outright taking of an investment or obligatory transfer of title in favour of the Host State.[8] Indirect expropriation has been described as "…measures … taken by a state the effect of which is to deprive the investor of the use and benefit of his investment even though he may retain nominal ownership of the respective rights…".[9] Thus, the state may not appropriate the investment outright, but its action would have the effect of taking the investment. More generally, expropriation is the act of a government annexing privately held property or contract against the will of the owners/contractors, ostensibly for the property/contract to be used for the benefit of the overall public. International law recognises and accepts that a State has the right to expropriate an investment.[10] However, a lawful expropriation must follow the principles of due process, be non-discriminatory, carried out for a public purpose,[11] and be followed by compensation to the investor.[12] Historically, there has

[5] Dennis Kakembo, 'Stabilisation Clauses in International Petroleum Contracts, Illusion or safeguard?', (Deloitte, 2014) <https://www2.deloitte.com/content/dam/Deloitte/ug/Documents/tax/tax_StabilisationClauses_2014.pdf> accessed 29 August 2020

[6] See Angelo P. Sereni, International Economic Institutions and the Municipal Law of States' (1959) 96 Collected Courses of the Hague Academy of International Law 210, 210; F.V. Garcia-Amador, 'The Proposed New International Economic Order: A New Approach to the Law Governing Nationalization and Compensation' (1980) 12 U. Miami Journal of International Law 1, 17-24; Rosalyn Higgins, 'The Taking of Property by the State: Recent Developments in International Law'176 Collected Courses of the Hague Academy of International Law (1982) 233, 235; Muthucumaraswamy Sornarajah, *The Pursuit of Nationalized Property* (Martinus Nijhoff, The Hague 1986) 126; Ian Brownlie, *Principles of Public International Law* (6th edn, Oxford University Press 2003) 526.

[7] ibid.

[8] *Metalclad* v *Mexico*, Award, 30 August 2000, 5 ICSID Reports 212; 16 ICSID Review-FILJ (2001) 168, para 103.

[9] *Middle East Cement Shipping and Handling Co.* v *Egypt* Award, 12 April 2002 7 ICSID Reports 178, para 107.

[10] See United Nations Charter of Economic Rights and Duties of States Resolution 3281 (1975); A.F.M Maniruzzaman, 'Expropriation of Alien Property and the Principle of Non-Discrimination in International Law of Foreign Investment: An Overview' (1998) 8 Journal of Transnational Law and Policy 57-77; Smith (n 1) 286-296; Muthucumaraswamy Sornarajah, *The International Law on Foreign Investment* (3rd edn, Cambridge University Press 2010) 375; Rudolph Dolzer and Christopher Schreuer, *Principles of International Investment Law* (2nd edn, Oxford University Press 2012) 98-129.

[11] 'Nationalization, expropriation or requisitioning shall be based on grounds or reasons of public utility, security or the national interest which are recognized as overriding purely individual or private interests, both domestic and foreign. In such cases the owner shall be paid appropriate compensation, in accordance with the rules in force in the State taking such measures in the exercise of its sovereignty and in accordance with international law…' General Assembly Resolution 1803 (XVII) of 14 December 1962, 'Permanent sovereignty over natural resources Article 4 <http://legal.un.org/avl/ha/ga_1803/ga_1803.html> accessed 05 June 2018. See also R. Doak Bishop, James Crawford and W. Michael Reisman, *Foreign Investment Disputes: Cases, Materials and Commentary* (2nd edn, Kluwer Law International 2014) 14-15.

[12] ibid; Dolzer and Schreuer (n 10) 100.

been a string of high-profile unlawful expropriations in the natural resources sector, which often did not result in tangible compensation. Faced with the risk of unlawful expropriation, investors will often seek safeguards in investment treaties and other international political and economic instruments. The existence or non-existence of such safeguards will often be reflected in the value of the project to reflect the risks.

(c) Security Risks

Security risks are determined by considering the likelihood that known threats will exploit vulnerabilities and the impact these threats will have on valuable assets. Security risk management is a process of identifying these risks and implementing plans to address them. A security risk assessment model includes four elements: identification[13], assessment[14], mitigation[15] and prevention[16].

A security risk assessment raises a number of challenges related to its compliance. For instance, the assessment process requires the collection of a wide variety of valuable data which needs to be checked for accuracy. Furthermore, security risk assessment needs to be conducted frequently in order to help ensure the safety of the business's activities. The information that should be collected varies widely based on the project itself, but may include:

- Potential human casualties, killed & injured
- Economic loss of infrastructure destruction and trade disruption
- Business impact
- Civilian inconvenience due to loss of energy supply
- Environmental degradation due to hydrocarbon release
- Time loss in repair
- Potential for interdependency effects[17]

A narrower, but increasingly necessary part of the security risk assessment is a cybersecurity risk assessment. Cybersecurity issues may be caused by a variety of motives, including corporate espionage, environmental activism and terrorism. Risks arising from cyber insecurity can include plant shutdowns, equipment damage, utilities interruption, compromise of product quality, undetected spills, etc. These types of risks are more latent and require more attention as a result of digitalisation of modern society, where deployment of cybersecurity apparatus is the only protection for the vast majority of valuable data.

[13] Identification refers to determination of all critical assets of the infrastructure. After that, sensitive data that is created, stored, or transmitted by this data is diagnosed and each type acquires its risk profile.

[14] Assessment process means administration of an approach to determine time and resources necessary to mitigate these risks.

[15] Mitigation stage is about defining and enforcing security controls for each risk.

[16] Prevention means implementing tools and processes to minimise threats and vulnerabilities identified in the previous stages from occurring.

[17] 'Oil and Gas Industry | A Comprehensive Security Risk Management Approach', Risk Watch International <https://riskwatch.com/wp-content/uploads/2014/03/Download-Petrochemical-White-Paper.pdf> accessed 17 September 2020.

Security issues may also arise out of political stability risks. For instance, where corruption is prevalent, local communities in the area where the project is operating may receive little or no financial or non-financial benefits from the national government. This creates tensions between investors and local communities where the latter feel their land is being exploited and they have no benefit from the natural resources in the area. This may lead to civil and/or labour unrest, which may take a violent or non-violent form, but in any case, such outcomes detract from the attractiveness of the investments and further, normally indicate that civilians are rather unhappy with the political state of the country. In the event that an investment area is subject to such incidents, there is a possibility that later it can lead to a bigger conflict that can cause significant investment losses.

Another main cause of security risk stem from local communities in the region where the project is operating. Environmental concerns of local communities can quickly escalate into a security risk if left unmitigated by the investor. Stakeholder engagement plays a critical role in mitigating this area of security risk. The relationship between natural resources and internal violent conflicts has been studied by a number of researchers. There are two competing views. Some researchers find that natural resources instigate and prolong internal violent conflict, whereas other researchers find that natural resources reduce the likelihood of the conflict.[18] Regardless of whether resources make violence more or less likely to occur, one would be hard pressed to find positive effects of internal violence in the development area of the oil and gas exploration and production projects. Hence, taking into account the above-mentioned factors, security risk is a key consideration in evaluating the profitability of investments.

(d) Socio-economic risks

The existence of commercial discoveries is an essential milestone for any oil and gas development as will be analysed in this handbook. However, socio-economic risks involve various aspects that may cause social un-acceptance of a prospective upstream project development. Some of the main reasons are examined here.

Environmental activism is an important aspect of the social order in the management of natural resources. Such activism may lay ground for necessary corrective measures by the HG and investors for the sake of environmental protection. However, environmental activism, (be it lawful or unlawful) that deploys a destructive approach can be a significant risk for oil and gas investments. As referred to earlier, unlawful and destructive environmental activism may take the form of cyberattacks, physical destruction of equipment etc, which if executed effectively, can lead to substantial losses being incurred, increased negative attitudes toward the industry within the general public (lower chances of achieving the "social license to operate"), and reduced numbers of investments generally and in a certain regions. 'Lawful' environmental activism can also create risks for the investor, especially where such activism may be harmful to the reputation of the investor. Take for example Greenpeace's environmental activism in the widely acclaimed case of the Brent Spar or its lobbying of the Save the Arctic movement, which

[18] Matthew Costello, 'Oil and Gas Rents and Civilian Violence in the Middle East and North Africa, 1990–2004: A Resource Curse, or Rentier Peace?' Soc. Sci. (2018) 7, 39.

exacted a huge reputational price from large international oil companies for their Arctic drilling programme.[19] Hence, companies are now being urged to treat environmental social and governance matters as Boardroom and CEO level issues and not as merely departmental issues. Environmental protection plans that seek to minimise negative environmental impacts from their activities is now widely seen as a minimum standard imperative and an example of best practice.

Divisions within society caused by factors such as language, ethnicity, national origin and socio-economic status, can lead to occurrences of conflict between social groups. Conflict between smaller social groups from within a larger group is known as factionalism. Risk of ethno-linguistic factionalism affect "state capacity" and, therefore, income per capita. Understanding these societal divisions of the region is critical to ensuring smoother operations and overall success.

The lack of the institutions within the State or the region is not always obvious because various governmental bodies usually exist and operate with one or another on some level. However, oil and gas resources have a tendency to be found in remote areas often neglected by the national governments, so it is not uncommon for these regions to have inadequate government institutions to handle the complexities of petroleum E&P. Therefore, investors should identify these deficiencies and work with all levels of government to remedy these issues. Although the HG signs the granting instrument, the real stakeholders are often the government institutions at ground level where the E&P is operating. The proper involvement of these institutions at some level can aid in the mitigation of risks.

Other issues to be considered include the existence of a functioning National Oil Company (NOC) (or potential thereto), its level of competency and funding, and the suitability of the NOC as a partner. The NOC's involvement can vary widely depending on the specifics of the petroleum legislation, the E&P activity, whether it is onshore or offshore, and the nature of the country involved and its role (i.e., commercial and/or regulatory). The suitability of small or large companies plays a role in the determination of potential partners and is dependent upon the particular conditions for conducting business activities in the industry and those companies' experiences in the country.

(e) Environmental Risks

The protection of the environment is a major issue in the oil and gas industry because of the effects of drilling, flaring, oil spillage and release of chemicals associated with oil and gas activities. The high number of potential environmental impacts of oil and gas exploration and production activities warrants significant consideration of environmental issues for stakeholders. To begin with, national (federal, state and local), as well as international laws, seek to balance the need for economic development with environmental protections. Environmental protection law has long been an international issue involving the influence of multiple organisations. Therefore, environmental protection groups can make a significant contribution to how an investor is perceived by the public, within and outside the Host State. Further, regulatory provisions flowing from international law can limit the amount of emissions from

[19] Ian Griggs, 'Greenpeace claims 'unmitigated defeat' of big oil as Shell halts Arctic drilling' (PR Week, September 2015) <http://www.prweek.com/article/1365988/greenpeace-claims-unmitigated-defeat-big-oil-shell-halts-arctic-drilling> accessed 10 September 2020.

flare gas and thus, affect the amount of production possible with respect to these limitations. Changes in such regulatory provisions can also dramatically impact the existing exploration and production projects.

Furthermore, the internationally considered issue of climate change is another relevant concern for stakeholders in oil and gas operations. The issue of how best to balance the interests between the petroleum industry and environmental interests on climate change is ongoing and will clearly continue for as long as the industry exists. The topic of sustainable development in both developed and developing parts of the world, and the various programmes on national and international levels are increasingly important. Up until now, the issue has been that the initiatives for tackling climate change are not sufficient, and the oil and gas industry is one of the main culprits for the inaction. Conversely, in recent years, there have been some tangible initiatives from the oil and gas industry itself, albeit with a push from environmentalists and regulators, for proactive measures to mitigate climate change. To this end, some of the larger and smaller players within the industry are at the forefront of developing mitigating initiatives such as carbon capture technology, electrification of operations, investing in cleaner fuels and energy as well as cleansing processes for climate gases such as NOx.

(f) Commercial Petroleum Risks

Commercial risks in the petroleum industry refer to the factors that undermine the viability of making oil and gas exploration and production a profitable enterprise. Contrary to popular belief, most investments in oil and gas explorations do not turn into successful ventures. Commercial risk is not a purely independent group of risks - they are treated and analysed in a composite way inclusive of the other risk factors discussed earlier in this chapter.

Usually, there is a high demand for energy resources in the world economy. The emergence of big consumers on the energy markets and the prospective fear of natural resources and energy poverty by the next century, raises concerns among its suppliers of sustainable development and fair energy distribution. Prior to making an investment decision, whether in procuring exploration licenses or development of a field or purchasing of producing assets, a company's first concern is the commercial viability of the venture. Some of the classic commercial risks are discussed below:

- *Volatility in oil and gas commodity prices*

Oil and gas companies face the risk of financial volatility. This can arise from inflation within the host country, exchange rate volatility, most of all, however, due to unexpected reductions in the price of oil and gas. An example of the latter is the effects of the COVID-19 pandemic, which has negatively affected the demand for oil, resulting in excess supplies and thus the significant reduction to the price per barrel of oil globally. Although fluctuations in price, exchange rate and the like affect virtually all international contracts, the impact of these factors on E&P projects could be more significant, due to the amount of investment sunk into a project and the duration of the same. Additionally, and on the oil production side of things, a reduction in price can be the result of oversupply from the producing countries. Control of supply and therefore commodity prices, are the main reasons why the Organization of the Petroleum

Exporting Countries (OPEC) was established and why it remains an extremely influential body within the industry. The other aspect, demand, is highly influenced by the drivers of the world economy and their complexities. For example, when major economies, such as those in China and the U.S., are projected to experience down turns due to macroeconomic issues, oil prices tend to be highly sensitive to such events; this is due to the fear of a decline in demand. One of the first questions oil and gas company teams ask in their evaluation of the commerciality of a discovered oil or gas field, is whether the short- and long-term prices are reflective of the development investments and required return. It is this methodology of finding the project's break-even price, a price for the oil or the gas in place that can carry the development and production costs and provide an acceptable return on the investments, that heavily influences whether to go ahead with the investment or not. To this, there are important nuances between oil and gas markets and commerciality. On the one hand, oil prices are largely dependent on the day-to-day market dynamics, with a standard price per barrel that is largely applicable globally and fluctuates with the financial, political and economic events in the general world market. On the other hand, gas prices are historically, and still, largely influenced by events that are more static. Gas is usually sold on (1) spot-markets or (2) long-term offtake contracts. Normally, investors will not make an investment decision to develop a gas discovery if they cannot find an off-taker who can guarantee the purchasing of a major part of the gas for a long period (10-20 years depending on volume). This is because the seller would typically require a guarantee of realising its investments and to meet any repayment obligations to project financiers and it might require more complex infrastructure to monetise such development.[20]

- *Inadequate reserves*

When an oil and gas company or a group of oil and gas companies in a joint venture hits an oil and/or gas discovery, there is certainly great immediate excitement as to the prospects of a profitable venture. The next step after a discovery, i.e., mandatorily regulatory and rationally commercially, is to assess the extent of the reserves. A major criterion for reaching an investment decision or terminating further investments is the commercial adequacy of oil and/or gas reserves in-place. The technical aspects include an appraisal of the discovery, drilling the necessary (and costly) appraisal wells, simulations, crunching numbers and so forth, for estimating the oil or gas (i) resources in place (that are present in the ground reservoir) and (ii) the reserves (that can technically be recovered from the ground). The second one – the reserves – can be classified as proven or unproven, depending on the recovery factor that is underpinned by the availability of recovery and processing technology, as well as regulatory, political, market and contractual aspects. Estimation of reserves for assessment of the commercial risk is a continuous exercise, including after the discovery, the appraisal and the first commerciality and investment decisions. Estimate of reserves is crucial also in the subsequent milestones of a field's life. For example,

[20] Henning Matthiesen, 'To What Extent do Take-or-Pay Contracts facilitate the Development of Infant Gas Markets and What Challenges do they pose at a Time of Liberalisation?' (2003) 1(4) Oil, Gas & Energy Law Intelligence (OGEL) 1, 3-4 <www.ogel.org.uk> accessed 22 February 2017; Colin Lockhart, Upstream Oil & Gas Marketing Agreements: Trade Practices Issues (2004) 23(2) Journal of Energy & Natural Resources Law 185, 193; Daniel O'Neil, 'Gas sale and purchase agreements' in Picton-Tuberville G (ed), *Oil and Gas: A Practical Handbook* (Globe Law and Business 2009) 138.

commercial feasibility may be assessed for the purpose of tie-ins and third-party access, enhanced production and tail-end investments. Such assessments are also important in the transaction of licences and other assets, farm-ins by NOCs and other parties, and other similar transactions. An additional challenge for commerciality is the struggle to expand reserves in replacement of depleted reserves. Replacement is possible with investments in new discoveries, enhanced recovery of existing petroleum in-place and tie-ins.

A much-anticipated discovery may not necessarily lead to any production and profit-making due to inadequacy of the reserves. The adequacy of reserves is a relative term and could be affected by, for example, the size of the discovery, type of petroleum (oil, gas, heavy or light oil etc.), remoteness to markets, existence of infrastructure, political and contractual issues, and also production and recovery technology, which are discussed below.

- *Availability technology*

The oil and gas industries are technology intensive sectors. In the early days, oil could virtually be easily fetched with primitive pumping methods from a shallow well onshore – as was the case, for example in early US oil business. In some contemporary instances, oil and gas are recovered from offshore wells as deep as 4000 metres, in other instances, oil and gas is extracted from formerly inaccessible shale reservoirs, processed on massively scaled platforms, separated, cleaned for environmental harmful substances, and transported with massive cables deep on the seabed, etc. The availability of the appropriate technology is a key risk factor in assessing the commercial feasibility of a petroleum field. This risk is sought to be mitigated through substantial investments from oil and gas companies, as well as supply companies into the development of new technology. Research and Development (R&D) investments are encouraged from the commercial players and often also from the governmental regulators who provide incentives.

- *Access to capital and finances*

The decisive factor for commerciality is access to finance. In other words, in order to develop a discovery, there needs to be access to money for the capital expenditure (CAPEX) and the operational expenditure (OPEX). The most relevant players in the financing of projects are banks and other financial institutions, the companies themselves with their own capital (usually from shareholders), as well as offtakers and buyers. However, it is difficult to raise financing until a commercial discovery is made. The oil and gas industry has to compete for capital with other players in the energy market. Today the industry is facing a healthy challenge from the renewable energy sector with investments diverging into renewables. This divergence happens on the big world marketplaces, but also internally with oil companies themselves diversifying their portfolios with a keen interest in renewables. However, it is still believed that for the foreseeable future, oil and gas resources will remain the dominant energy resource; thus, feasible projects continue to attract adequate investment interests (especially gas).

- *Political risk*

This can affect the investor in an E&P contract in three main areas.[21] The first is through forced renegotiation. This is the risk that the Host State may demand a renegotiation of the contract despite guarantees and stipulations in the agreement to enforce the stability of the contract.[22] Although the investor would have no contractual obligation to renegotiate in the absence of a renegotiation clause, the refusal of the investor to do so could lead to obstruction tactics being deployed by the State or its entities, which could jeopardise operations, delaying tactics is a good example of this. Further, where the State requests or demands renegotiation at the operations stage and the investor has provided considerable funding for the related costs of the project due to strong financial prospects, and is yet to recuperate such costs, the bargaining power would be in favour of the State and the investor may feel compelled to renegotiate. This is known as the "obsolescing bargain".[23] Secondly, the State's unilateral change of contract terms is a feature of political risk that can affect an E&P project. This is the risk that the State as a sovereign authority may amend or affect the terms of the contract without the consent of the investor. The third area of political risk is expropriation. There is consensus amongst writers on stability in oil and gas agreements that the greatest risk to an oil and gas investment is expropriation,[24] particularly the indirect kind.

All three areas of political risk may be mitigated through a form of stabilization clause or renegotiation clause. Changes in contracts or fiscal terms may have a significant impact on the relationship and can adversely affect the desire of parties to continue relations. Stabilization clauses attempt to allow parties to agree on the use of the original contract provisions, notwithstanding possible legal regulatory changes. Parties can seek to adhere to the terms existing at the time of the conclusion of the contract, in case of possible aggravation of the parties' state, and sometimes in order to have the opportunity to change (unilaterally or jointly) the terms of the contract in order to improve the circumstances of the parties.

Another issue to be considered is the level of opposition to foreign energy sector investment by interest groups or public officials. A wide variety of factors affect the occurrence of this risk, including the political state, stability of the investments as a current situation within the country, level of the national economy and social factors. Legal regulations often pave the ground for foreign capital contributions, but sometimes they instead provide disincentives for such contributions. Repatriation of capital and revenues are sometimes subject to restrictions set forth by national regulations. Such restrictions, if they exist, are definitely discouraging for international investors. It is essential for the investors to consider the existence of these issues while considering the perspectives for the investment. Political risks

[21] Smith (n 1) 284-327; Peter D Cameron, *International Energy Investment Law: The Pursuit of Stability* (Oxford University Press 2010) 61; Arve Throvik, 'Political risk in large projects' in Thomas J Dimitroff (ed), *Risk and Energy Infrastructure: Cross-border dimensions* (Globe Law and Business 2011) 33-50; Mustapha Erkan, *International Energy Investment Law: Stability through Contractual Clauses* (Kluwer Law 2011) 5; Fabio Solimene, Political risk in the oil and gas industry and legal tools for mitigation (2014) 2 I.E.L.R 81, 82-85.

[22] Erkan (n 21) 181.

[23] This is the interaction between an IOC and a Host State, where the initial bargain favours the IOC but where, over time as the IOC's fixed assets in the country increase, the bargaining power shifts to the government. See Deardorffs' Glossary of International Economics, *Obsolescing bargain model*. <http://www-personal.umich.edu/~alandear/glossary/o.html> accessed 06 February 2016. However, the relevance of the obsolescing bargain in the relationship between IOC and host states has been disputed in recent times. See Ravi Ramamurti, 'The Obsolescing 'Bargaining Model'? MNC-Host Developing Country Relations Revisited' (2001) 32(1) Journal of International Business Studies 23-39.

[24] Erkan (n 21) 49. Erkan s survey on expropriation indicated that a majority of oil and gas practitioners were of the view that oil and gas investors faced a greater risk of expropriation today than in the past. See also Sornarajah, (n 10) 99, 207-208; Cameron (n 21) 61; Fabio Solimene (n 21) 82-85.

also affect the chances of a commercial risk arising. Issues arising from the contract that have a bearing on stability, such as legal regulations that call for the changing of the fiscal terms of an agreement, or the express right to use a stabilization clause should all be known to the investor.

- *Health, and safety and operational hazards*

During the course of oil and gas operations, a number of operational risks may arise. This can include equipment failure, accidents, serious staff sickness, death and unforeseen circumstances affecting production. The occurrence of any of these factors may lead to delay or complete shutdown of operations. One of the highest impact risks is identified as operational hazards that may negatively impact the health and safety of the working environment, including pollution. Such risks can make or break an oil operation venture, well-known examples being the Macondo accident with BP and Transocean in the Gulf of Mexico. Oil companies have a self-interest in mitigating these risks for commercial reasons. As was the case of Macondo, BP ended up paying out billions (USDs) in claims. Health and safety and environmental protection should be addressed as a key risk of contracts and regulations.

(g) Legal Risks

Legal regulations accompany all activities of petroleum operations on every stage of development and production. Hence, each change in regulations can cause a significant impact on the circumstances of the parties to a petroleum contract or operations. Parties prefer being protected from changes in legislation that may have adverse effects on their agreements and operations. This is normally mitigated against by guarantees being provided in national laws and by the executed contracts.

The specifics of legal regulations in each jurisdiction are considered in international project development. A State that is known for ease of doing business with its parties and within its territory will attract more investment. In determining whether a particular jurisdiction is conducive to project development, the following issues should be considered: bureaucratic issues and the availability of international treaties providing for beneficial conditions for conducting business activities between parties from more than one country.

Inefficiencies in bureaucracy can decrease the interest of foreign companies to do business within a country. Having to adhere to a multitude of requirements and 'red tape', whereas the government is afforded wide discretion, a lack of transparency and accountability, often raise suspicions, signaling that such opaque situations often bread corrupt practices. It is easy in such circumstances for mistrust between parties to develop, creating an unfavourable environment for oil and gas operations.

International treaties that encourage investment activity is a key objective of Bilateral Investment Treaties (BITs). BITs are agreements establishing the terms and conditions for private investment by nationals and companies of one State in another State party to the treaty. These usually grant foreign investors a number of guarantees in dealings within the member state or with its companies. Such guarantees typically include clauses on fair and equitable treatment, protection from expropriation, free transfer of

means and full protection and security. A list of available BITs can be accessed on the UNCTAD and/or ICSID website.[25]

1.2. Risks vs. Rewards

It is essential to understand the nature and variety of risks that stakeholders can reasonably expect in the course of E&P activities. Effective risk assessment and management basically corresponds to the possibility of acquiring rewards. Where risks are very high, the rewards should be equally attractive. The lower the risks, the rewards are likely to be less attractive.

These rewards should encourage the conclusion of HGI and exploration and production operations. At the same time, the efficiency of these rewards and management of the risks mentioned earlier require the presence of an adequate legal framework, including the special provisions within the HGI to confer parties with the sufficient scope of rights and guarantees, in order to satisfy the initial purpose and conduct of the contractual operations.

2. Legal Framework Issues

2.1. Aims

In the course of the realisation of its internal and external policies, each state defines their priority goals. These can vary significantly from one nation to the next. Proceeding with international project development, usually requires the State to take into account its national interest and the attraction of the investments.

(a) National Interest Protection

Governments tend to protect national interests as a matter of socio-economic policy and as a marker of sovereignty . “National interest” is a broad concept, the scope of which depends upon particular circumstances. Securing the national interest is a universally accepted right of every State. The State may usually justify any action, attributable to it, by referring to the protection of its national interest. There are several approaches to the definition of national interest. Typically, it is regarded as a general, long-term and continuing purpose, which the State, the government, and the nation all serve. In a narrower definition, protection of national interest is protection of the political, cultural or any other identity of the State against encroachments by other parties. In petroleum exploration and production relations, the State is seeking to protect its national interest. The protection of national interest in this context involves two crucial elements: protection of financial interest and protection of energy security interest. The overriding objective for the protection of national interest is to ensure that the Host State optimally benefits from the exploitation of its natural resource. Some of these benefits that the State enjoys can be said to include: meeting domestic energy needs, increasing revenue that underscores economic growth throughout the course of the oil and gas operations.

The protection of national financial interests in oil and gas upstream activities require a deeper look into some of its particular aspects, such as the growth of the national economy, the flow of royalties and

[25] See the following, <https://investmentpolicy.unctad.org/international-investment-agreements>; <https://icsid.worldbank.org/resources/databases/bilateral-investment-treaties> accessed 20 August 2020.

taxes, foreign investments increase, industrial development, and infrastructure. The growth of the national economy as a result of successful development projects can be reflected in the increase of local content, therefore, increase of education, employment and transfer of technology and know-how. Both national and international markets are affected by the success of oil and gas exploration and production projects. The government receives its profit under an HGI and commercializes (if applicable) it in order to achieve its financial and political goals.

Governments, like the international oil companies, begin making profits out of upstream projects during the production stage (taxes and/or profit share of production); however, this can happen earlier. For example, the fiscal terms may provide for rental fees and signature bonus payments. This allows governments to receive income before the beginning of the production phase. Hence, oil and gas upstream activities result in another positive consequence for the host government – an increased flow of income. Attracting foreign investments may be in the government's interest if it can stimulate economic growth, technological development, and increased employment. To this end foreign investment appears to be a top priority for many governments, which is reinforced by the continued rise of globalisation and the forging of the international economy.

The need for continued improvement in the performance of oil and gas exploration and production, underpins the expectations set for industrial development. Two aspects which can influence the development: 1) the increased need to involve modern technologies in order to accelerate processes and enhance the quality of the result, and 2) better opportunities to do so by means of attracting more developed techniques. Infrastructural development is another concern for each host government involved in oil and gas projects. The State's interest correlates with most of the others. It is reflected in the need to have such basic assets as roads and other transporting assets in order to facilitate production, or to create educational institutions and generally to reach the goals of local content provisions during the operations being undertaken. Some countries already have basic infrastructure, but use E&P operations to build a more developed infrastructure network. However, some do not have any relevant infrastructure at all. This case is typical for developing countries where there have been findings of natural resources for exploitation. The lack of relevant infrastructure leads to difficulties when it comes to carrying out exploration, production and related activities in an efficient manner. The Host State therefore faces an uphill task of ensuring fit for purpose infrastructural developments. In many instances, the related costs for such upgrading of infrastructure are passed onto the companies. This increases a company's anticipated returns, as such costs may be factored into its recovery for developmental costs. Therefore, the company, as well as the Host State, will be looking to secure the best possible market price for oil and gas.

The second element of national interest relevant to these discussions is the attainment of energy security. Although there are numerous aspects to be studied within this topic, the most pertinent are: *pipeline security; maritime security; political stability; and sustainable development*. To begin with, there are many factors that can adversely affect *pipeline security*. For instance, sabotage, illegal tapping, and terrorist action all of which are commonplace around the world. Protection against such threats is a high

priority worldwide. Security systems have been constructed for the protection of pipelines, transferring oil, gas and / or other essential liquid products. However, for stakeholders it is necessary to draw attention to the following points: 1) is it safe to do business in this area; and 2) does the State assist with the pipeline's protection. Pipeline security is an essential condition for today's transportation of the project production.

Maritime security, like the title suggests deals with maritime issues that are often related to national security, marine environment, economic development, and human safety. These same areas are relevant to oil and gas operations. Regulations in the area of maritime protection impact upstream operations (e.g., regulation of marine pollution). Additional risks in this area include, but are not limited to, piracy, a consequence of oil spills, maritime militarised disputes, etc. The result of risk realisation leads to significant losses and sometimes the impossibility to perform obligations under the HGI.

Political stability is a concern that was discussed above. In the case of energy security, political stability is an issue because it tends to track the amount of wealth that typically follows the amount of resources allocated in a particular territory. Beyond that concern, political instability attributed to the other factors, that result in larger internal conflicts can cause challenges such as destruction of infrastructure and other disruptive activity.

The issue of *sustainable development* is a hotly debated topic in the modern era, which revolves around the issues of how to strike the right balance between reducing / eradicating fossil fuel dependency and transitioning to cleaner / non harmful energy sources. The threat of natural resource extinction by the next century has become the subject of new environmental regulations at both national and international levels. Sustainable development plans have been implemented in two ways: managing oil and gas production and a progressive and realistic switch to alternative renewable energy sources. The second option is more expensive and currently not 100% reliable. The first option can seriously reduce the opportunities for governmental income flows if it results in production limitations. Therefore, each nation will have to determine the appropriate course of action with regard to its national interests and international commitments for the said energy transition.

Both host governments and international oil and gas companies need to consider the risks in pursuit of their interests. Host governments should consider the above-mentioned elements of national interests in the course of its protection mechanisms being deployed. To do so effectively, the objectives of HGs in allocating oil and gas rights could pursue the following type of course:

- Select the right investing company(ies);
- Secure the best terms for the State;
- Eliminate or at least significantly reduce corruption; and
- Reflect broader sector goals.

Protection of national interest goes hand in hand with the attraction of foreign investments as the latter assists with the acquiring of the former.

Attracting Investments

The ability to attract investments is a key consideration for the host government's goal in developing international oil and gas projects but also as a matter of its national interest. There are a number of factors that may justify and encourage host governments to seek international investors and oil companies to invest in the host government's projects. Oil and gas exploration and production activities bear high geologic and commercial risk; the processes required in the undertaking of such activities are expensive and require high capital investment; and in conducting operations it is necessary to take into consideration the significant expertise and technological abilities needed to successfully execute projects. As for the particular needs of the HGs, the trends indicate that most HGs do not normally want to risk government funds by conducting projects independently, given the numerous risks involved. The inclusion of International oil companies, as investors in oil and gas projects, is likely to yield greater efficiencies, given that such risks and rewards will be shared. These are some of the main reasons for allowing private parties, for example, international oil companies – to invest into upstream projects.

A relevant question that arises is whether parties, especially governments, should take any risks before exploration of the new areas. The answer to this depends on a number of factors. Firstly, the relevant expertise and prospects of success should be taken into consideration. Secondly, the pre-estimated rewards and the amount of income accrued by each party in case of successful operations should be considered. Hence, all the risks should balance the rewards as a prerequisite to for approval by parties. However, often such estimation is imprecise or even impossible to achieve. This may explain why host governments usually do not take such risks. If at all, HGs tend to engage in less expensive activities in order to add more value to their areas prior to negotiating with international oil and gas companies. Governments have a duty to maximise their often limited funds in the best interests of their nationals; therefore, financial involvement in risky projects which are cash intensive ought to be thoroughly evaluated before participation.

(b) Effective Legal Framework

For the purpose of this chapter, 'legal framework' is a set of rules and regulations that govern the rights and responsibilities of the parties to a contractual relationship on a matter of oil and gas exploration and production project, contained in a system of legal documents or policies.[26] Such legal framework documents include constitutions (normally cover broader principles), laws (legislation), rules and regulations, model contract forms, and contracts. What constitutes a legal framework varies from country to country and is typically based on development, expertise and national interests. A well-designed legal framework should provide rules for how State institutions are structured; how companies acquire and manage licenses; the fiscal terms governing payments between companies and the State; environmental management; relationships between extractive projects and neighbouring communities; the behaviour of public officials active in the sector; public information disclosure and accountability; and how the

[26] 'Legal Framework: Navigating the Web of Laws and Contracts Governing Extractive Industries' (*NRGI Reader*, March 2015) <https://resource-governance.org/sites/default/files/nrgi_Legal-Framework.pdf> accessed 15 March 2020.

government will manage natural resource revenues. When companies begin to engage in a country, they have a duty to check that they are in compliance with all of the rules of the legal framework of a country.

In order to achieve all the participants' goals (especially, HGs'), the legal framework should be effective. Effective legal framework for governing oil and gas upstream activities consists of three elements: an effective allocation system, an effective fiscal system, and other policy tools. Each of the elements will be considered further in this chapter.

The adequacy of the legal framework is important because its applicability to the relevant transactional and ancillary matters provides legitimacy to the overall oil and gas enterprise. An adequate legal framework is one to which the following characteristics can be attributed:

- Sustainability and a long-term orientation;
- Receiving lasting commitment from State authorities;
- Providing mechanisms to ensure transparency and access to information;
- Attractive to domestic and foreign investments.

Therefore, setting up a legal framework generally requires a host government to provide the following minimum features to its regulatory environment:

i. To put in place a reliable and consistent mechanism for keeping track of who holds specific rights and interests in oil and gas projects, as well as who has access to land;

ii. To establish mechanisms of granting oil and gas rights with clear and transparent procedures, for each stage thereof;

iii. To establish mechanisms of making relevant information about right-holders publicly available to as much extent as possible;

iv. To provide reliable mechanisms for the support and benefit of other stakeholders such as landowners and local communities. These include dispute resolution, access to information and mechanisms that foster informed consent;

v. To consider relevant risks and mitigate them by means of the legal instruments and policies;

vi. To consider and set out measures to protect national interests;

vii. To provide regulations and guidelines on procedures as well as sustainable and effective methods of conducting oil and gas related activities, through best practices in industry;

viii. To create measures to successfully attract investments into the development projects;

ix. To provide clear guidance on the fiscal system, rights and duties and relevant policies;

x. To institute regulatory bodies to monitor and ensure compliance with rights and duties;

xi. To provide clarity on the relevant State agencies to be involved in oil and gas affairs.

An effective legal framework created by the host government, containing these minimum standards will assist the host government in achieving its primary oil and gas production objectives. Thus, key to this important outcome is the introduction of relevant provisions that satisfy the needs of all the participants, government included, which are then supported by the State authorities in terms of the implementation, and transparency of all the mechanisms involved.

(c) Host Granting Instruments

For investors to obtain a right to explore for and produce hydrocarbons, they must acquire special permission from the HG. It is done by means of an HGI, which is an agreement between the HG, as the State party, and one or more IOC, that sets out the allocation of rights to explore, extract and produce oil and gas. HGIs usually have a term for at least 20 - 35 years, which is the typical life cycle of an oil and gas project. The HGIs fall into 2 main categories – Tax-Royalty system (mainly consisting of licenses and leases) and Contractual System which include instruments such as Production Sharing Agreements (PSAs, also known as Production Sharing Contracts – PSCs) and Service Agreements (SAs). Although the concession tends to be a contractual system it is closely related to the Tax-Royalty system.

The following paragraphs provide a breakdown of these different arrangements:

As national governments have control over the oil and gas in their territories, they determine the areas where oil and gas companies can explore for and produce hydrocarbons. By means of licences and leases, HGs grant IOCs (and their joint ventures) authorisation to prospect or explore for or produce hydrocarbons in a specific delineated geographical area, and / or to produce these operations within that certain area. In the Tax-Royalty system, title or ownership of the hydrocarbons ideally passes onto the IOC upon extraction, The IOCs keep all of the production, but pay mostly royalties and/or taxes based on different laws and fiscal rules of the Host State.[27] Licences are typically distributed in 'licensing rounds', the process of which is established by national legislation.

Concessions or Concessionary Agreements were first widely used in the 1900s, before the PSC was introduced. Historically, a concession is the conferring by a State to an IOC the exclusive rights to explore and exploit oil and gas over a large acreage and for a period of between 60 to 75 years.[28] The concessionaire is given proprietary rights over resources, as well as absolute decision making powers.[29] In return the State would receive a nominal payment through a lump sum or instalments.[30] It may also receive royalty payments – agreed in absolute terms or based on the volume of oil or gas extracted.[31]

[27] 'Legal Framework: Navigating the Web of Laws and Contracts Governing Extractive Industries' (*NRGI Reader*, March 2015) <https://resourcegovernance.org/sites/default/files/nrgi_Legal-Framework.pdf> accessed 30 October 2019 and Erik Jarlsby, Eduardo G. Pereira, *International Petroleum Fiscal Regimes* (Pennwell 2019).

[28] Smith (n 1) 442. The first petroleum concession was granted by Persia in 1901 to a British entrepreneur William D'Arcy.

[29] ibid 31.

[30] Zhiguo Gao, *International Petroleum Contracts: Current Trends and New Directions* (Graham Trotman Ltd 1994) 13-15; Muthucumaraswamy Sornarajah, *The Settlement of Foreign Investment Disputes* (Kluwer Law International, 2000) 44; Smith (n 1) 31.

[31] ibid.

Additionally, a contract area can simply refer to 'the geographic area in which the government allows a company to operate'.[32] In practice these areas are called the 'block' or 'blocks' identifying where the company has been granted rights. Over time, particularly after decolonisation, governments of resource rich countries became discontented with the terms of the traditional concession arrangements and sought to regain sovereignty over natural resources, as well as to secure participation in operations and increased fiscal payments.[33] This gave way to the Production Sharing Agreement.

A Production Sharing Agreement (PSA) is an agreement between the HG and IOC(s), under which the IOC, also referred to as the "contractors", conduct their operations within a specific delineated geographic area, and the production is shared between all the parties to the PSA based on an agreed set of terms. The PSA is discussed in detail in the next Chapter.

Another form of agreement used instead of the PSA is the Service Contract. The Service Contract is used in two forms, risk and non-risk. In the latter, the State (not the investor) takes on the risks (financial and otherwise) of exploration and exploitation. The government retains control of and title/ownership over the resources and hires the contractor to carry out specific oil and gas operations. In return, the contractor receives an agreed fee, whether there is a discovery or not.[34] This payment may be in cash or in kind, the latter is typically preferred by IOCs as it gives them access to oil/gas. The Non-Risk Service Contract is typically used where the State requires a particular technical skill or specialism in oil and gas operations, one which cannot be performed by its national oil company.

In a Risk Service Contract (RSC), the IOC takes on all the risks of exploration in the hope that it will make a commercial discovery of oil or gas.[35] (This is the case in all previously discussed HGIs, apart from the Non-Risk Service Contract.) Where there is a commercial discovery, the IOC will continue to provide technical services in the capacity of a contractor, and receives remuneration in cash or in oil.[36] Iraq uses a risk service contract (known as a technical service contract) where the IOC is paid a fixed fee per barrel (remuneration fee), its operating costs are also recovered through the remuneration fee which may be taxed at 35%.[37] There may also be an agreement for a State entity to take over operations from the IOC at the production phase.[38] The RSC gives the Host State a great degree of control over its natural resources, but for IOCs, it is the least attractive form of HGI, particularly because there is no guaranteed access to oil or gas. Iran used some form of RSC for around 25 years, but in a bid to make its oil and gas

[32] Concession (*Schlumberger Oilfield Glossary*) <https://www.glossary.oilfield.slb.com/en/Terms/c/concession.aspx> accessed 15 March 2020.

[33] Gao (n 30) 14.

[34] Anthony Jennings, Oil and Gas Exploration Contracts (2nd edn, Sweet & Maxwell 2008) 20.

[35] Jennings (34) 20, 38.

[36] ibid 20.

[37] The 2006 Iraqi Constitution, Article 111 states that, 'Oil and gas are owned by all the people of Iraq in all the regions and governorates'. This has been interpreted as a constitutional restriction on the PSC since that allows IOCs to 'own' oil and gas. Therefore, the technical service contract remains the only alternative since the IOC does not own oil and gas resources. However, it must be noted that the semi-autonomous Kurdistan region of northern Iraq uses the PSC. See Reed Smith LLP, 'Iraq oil and gas regime - part II' (Lexology: Reed Smith LLP, 04 June 2013) <https://www.lexology.com/library/detail.aspx?g=6c78b845-a73f-4554-be26-6ce88d79cea3>; Luay J. Al-Khateen, 'Iraq's crazy goings on' (Petroleum Economist, 15 August 2020) <http://www.petroleum-economist.com/articles/upstream/exploration-production/2017/iraqs-crazy-goings-on> accessed 15 August 2020.

[38] Jennings (34) 20.

sector more attractive to foreign investors, a new model called the Iranian Petroleum Contract (IPC) was announced in November 2015.[39]

The principal negotiation of this type of HGI is typically around costs, how they are calculated, and 'authorisation for expenditure'[40] of the producer.[41] Some countries choose to use a combination of these systems, whereas other countries have chosen a specific system. However, an effective petroleum rights allocation system in any case shall take into account the main following points:

- The characteristics of the area to be licensed (such as geology, exploration risk, location, and distance to market);
- The structure of the market (such as level of competition, market segmentation, size and strength of the players, access to information, and domestic market);
- Issues related to the ownership and access to the resource;
- Regulatory and institutional frameworks.

In addition to the allocation systems, there are fiscal systems. Fiscal systems are various combinations of fiscal instruments that together set out the way HGs collect all the fiscal payments from IOCs during different phases of the project that amount to the government's take.

Despite the fact that these systems are different and perhaps seemingly incompatible, elements of different systems can be combined into a hybrid system which better corresponds to all the requirements and needs of the participants in a particular area. Essentially, the State can conduct a holistic evaluation and create a bespoke fiscal system that suits its needs. Nevertheless, all of these HGIs can turn out to be effective and fit for their designed purposes established by the HG. However, their terms and conditions will determine how attractive and effective they might be.

(d) Oil and Gas Rights Acquisition Process

As seen above, there are numerous methods and instruments that confirm contracts with rights to explore for and produce hydrocarbons. Similarly, there are various processes upon which such rights are conferred, as shall be discussed below. The mechanisms for each of the processes are established by the host government in an effort to achieve its objectives to the fullest extent possible. Mechanisms, or approaches, to awarding HGIs include licensing rounds and open-door systems, a hybrid form (consisting of both licensing and open-door systems) and a farm-out option. The main points of each mechanism are discussed below.

[39] Michael Lawson and Ben Bradstreet, 'The Iranian Petroleum Contract: Foreign investment reforms in Iran's oil and gas sector' (King & Wood Mallesons, 23 August 2016s) <https://www.kwm.com/en/knowledge/insights/the-iranian-petroleum-contract-20160823> accessed 06 September 2020.

[40] The principal document producers use to obtain internal permission and the permission of its joint working interest owners to undertake the operation.

[41] Andrew R. Thomas, 'Service Contracts in the Oil and Gas Industry' (2013) Energy Policy Center, Levin College of Urban Affairs Cleveland State University.

Licensing rounds are a procedure of granting licenses for the extraction of petroleum to a company or a joint venture. The procedure varies widely in each country, but it is typically completed via auctions. Using auctions is a market-based system, where the HG awards oil and gas rights to the bidder who proposed the highest bid. The meaning of "highest bid" depends upon the auction form and criteria. The criteria upon which the bids are made are called bidding parameters. Bidding parameters are set by the HG and can be single or multiple. The auction system of awarding oil and gas rights is widespread, and some consider it to have the lowest possibility of corruption since it is a question of selecting the highest bid based on the stated criteria. However, it should be noted that this reduced corruption risk is not automatic under a competitive process. To minimise the possibility for corruption, HGs are encouraged to demonstrate to investors and the public that there is fairness and transparency in the process. There are a number of transparency practices that should be put in place, some of which are now Extractive Industry Transparency Initiative (EITI) requirements.[42] Some of these include publication of pre-qualification invitations and lists of prequalified companies (including beneficial ownership), publication of bid protocols (including bid criteria), publication of lists of bidders (including beneficial ownership), public opening of bids, publication of some kind of evaluation or rationale as to how the winning bid was chosen, publication of the identity of the winning bidder (including beneficial ownership and publication of the eventually signed contract, if there is one.[43]

Open-door system, also known as direct negotiations, is a method of awarding oil and gas rights, where HGs set criteria for the relevant applicants, who request a negotiation. Otherwise, the negotiation can be requested by the HG. Criteria are usually not known to the public. Submission of the request is made to the authorised executive authority. Also, HGs can hold negotiations with more than one company simultaneously. This system of granting oil and gas rights raises concerns regarding the transparency of the procedure. Nevertheless, this system may be useful where the State is seeking a particular set of expertise and wishes to evaluate the most ideal company through a combination of objective and subjective criteria. These elements can be more easily deduced during negotiation, rather than auction-styled rounds which are largely objective.

Another form of acquisition of oil and gas rights is a *farm-out option*. A farm-out is the assignment by an owner (Farmor) of part of its participating interest in an oil and gas agreement (i.e., licence or contract) to a new or existing party (Farmee).[44] This is used where the Farmor seeks to reduce its financial liability under the agreement. The assignee would take on the rights and liabilities arising from the interest assigned. The benefit of a farm-out option is that it gives the relevant parties the ability to acquire and/or diversify their portfolio without direct governmental interference.

In analysing countries' experience with the allocation of petroleum rights, S. Tordo highlighted some of the lessons:

[42] Natural Resource Governance Institute, 'Open Contracting for Oil, Gas and Mineral Rights: Shining a Light on Good Practice', (June 2018) <https://resourcegovernance.org/sites/default/files/documents/open-contracting-for-oil-and-gas-mineral-rights.pdf > accessed 15 March 2020.

[43] See EITI Requirements 2.2, 2.3, 2.4, 2.5.

[44] Norman Wisely, 'Acquisitions and Disposals of Upstream Oil and Gas Interests' in Gordon G and others (eds), *Oil and Gas Law- Current Practice and Emerging Trend*s (2nd edn, Dundee University Press 2011) 523-549.

- *"The relative maturity of a geological basin affects the level of competition and the size of the winning bid;*
- *Expected future oil and gas prices are a significant factor in explaining the variability over time in the number of bids and bid size for the same geological basin, particularly in frontier and immature areas;*
- *The number of bidding parameters should be limited and should clearly reflect the objectives that the government wishes to pursue through allocation;*
- *Transparent awards improve the efficiency of the allocation system and make it less vulnerable to political and lobbying pressure;*
- *Work program bidding is often used to directly affect the quality and level of exploration investment in an area;*
- *Cash bonus bidding is generally less efficient in frontier and under-explored areas, especially when the number of bidders is limited and the players are risk averse;*
- *Joint bidding does not imply anti-competitive behaviour;*
- *The use of area-wide licensing or nomination affects bidders' strategies and outcomes as well as the pace of development of the resource base;*
- *Market segmentation – that is, the extent to which different companies specialise in different types of exploration activities and tolerate different risks – is of great relevance to the design of efficient allocation systems*".[45]

One cannot but agree with the observations above. There are a wide range of factors affecting both the criteria set by the HGs for choosing investors and the criteria that increase the level of competition between the investors. The best-case scenario is when these criteria correlate in a manner that satisfies HGs' interests and still attracts investments with the higher level of competition between them. One such factor could be the availability of high-quality seismic data needed to attract companies in a competitive bid round. Companies have cited the lack of data as a reason for declining to participate in a recent bid round. In response to such concerns some countries, such as Norway, have made this type of data publicly available and have introduced disclosure mechanisms for companies to provide this data at certain points to preserve it for future use.[46] As earlier stated, oil and gas contracts are highly capital intensive. Therefore, any investor would require a certain degree of confidence through data that the licence/contract area has good prospects. More importantly, where the seismic data is promising, HGs

[45] Silvana Tordo & David Johnston, Daniel Johnston, 'Countries' Experience with the Allocation of Petroleum Exploration and Production Rights: Strategies and Design Issues' (*The World Bank Group*, June 2009).

[46] See: Norwegian Petroleum Department, License Round (September 2020), https://www.npd.no/en/facts/production-licences/licensing-rounds/ accessed 21st September 2020.

can use this as a form of leverage (this confers some bargaining power) when auctioning or negotiating over the said area.

(e) Governmental Participation

Under HGIs, host governments normally participate in controlling the allocation of oil and gas rights since it is typically within its authority to do so. Furthermore, in countries with highly decentralised or federal governments, States and provinces may also allocate oil and gas rights. Licensing authority varies from one country to another. As for the forms of host government participation, it can be represented as the State Party in one of the following ways: host government itself; its authorised executive authority; or NOC. In any of these forms, a HG seeks to attract capital and technologies, exploration of its resource areas, industrial development, increased revenue, national economic growth, and economic diversification. Some countries might prefer to develop their own national competencies with or through a NOC. Indeed, this has its apparent benefits and should be encouraged, so far as it is effectively carried out. However, the NOC's participation might be compulsory or voluntary. This may depend on the provisions of the constitution, the Petroleum legislation, and/or the aspirations of the government for its NOC.

Considerations that governments typically take into account and expect from the applicant's investors include signature bonuses offered by the companies; their technical competence and financial capacity; and the work programme proposals (area and term of exploration). Besides these items it is prudent for the investor to consider proposing plausible new and innovative ideas that demonstrate unique selling points. These factors taken together allow the HG as a party to decide if the company has the ability to succeed with the project.

The terms of an HGI to a large degree determines the level of HG participation in the operations thereunder. That is why, during the HGI negotiation, all the parties should consider certain matters of HG participation, including:

- Ownership
- Control of Operations;
- Human Resource Development;
- Right to Terminate;
- Transfer Rights;
- Dispute Resolution.[47]

In cases when the HG's counter-party is a joint venture (JV) of investors, concerns may arise around the topic of a HG's intervention into the JVs' business activities; one of the reasons being that both parties

[47] F.C. Alexander Jr., 'Production Sharing Contracts and Other Host Government Contracts' (2005) OGEL 3.

would likely have varying agendas and priorities throughout the life of the licence or contract.[48] Generally, the Host State would be concerned with meeting its energy needs, increasing revenue and securing economic growth throughout the course of oil and gas operations.[49] For JV investors, the primary business interest is to maximise profitability, reduce operating costs, and most importantly, reduce risks and uncertainties that could affect the profitability of operations.[50] As such, the order of priority for different aspects of operation may differ for both parties, leading to a conflict of interest. Hence, it is necessary to agree upon the terms and to what extent such intervention is allowed and upon what basis. For example, the government may require supervision and approval of the JV agreement and/or issuing the model form for such agreement.

All these factors should be taken into account by both the host governments and international oil companies in the course of oil and gas rights acquisition and further host granting instrument negotiation.

Key Chapter Points

After reading this chapter, you should be aware of the following: First, understanding that risk in this area is crucial for HGs, oil and gas companies and other stakeholders. Effective risk management should balance its undertakings with the potential rewards for all parties. Further, an adequate legal framework should be set up in order to achieve two main aims of the host government in the course of upstream activities: to protect national interest and to attract domestic and foreign investors. As for how Host Granting instruments are awarded, there are various procedures set up by the host government and the legal framework of each country generally establishes these. The basic forms of oil and gas rights acquisition is either competitive or non-competitive, their hybrid form, or a farm-out option. The criteria (or bidding parameters) for awarding granting instruments are determined by the host government and may be single or multiple. The availability of these bidding parameters publicly can help reduce the suspicion of corruption. Furthermore, a Host government's participation in granting these instruments may be in different forms. The licensing authority depends upon each country's legislation. Lastly, the success of Host Granting instruments depends on a number of aspects for consideration for all the parties (or potential parties) and the terms and conditions attached to the said host granting instrument.

[48] Judith H Kim and Geoffrey Picton-Turbervill, A host state perspective on risk in Dimitroff T.J (ed), *Risk and Energy Infrastructure: Cross-border dimensions* (Globe Law and Business 2011) 173-175.

[49] Smith (n 1) 40.

[50] Muthucumaraswamy Sornarajah, (n 10) 61-65, 71.

CHAPTER 2: Production Sharing Agreement – Key Provisions– Post Award Part 1

After the acquisition of petroleum exploration and production rights, parties enter into a binding relationship that is governed by the Host Granting Instrument in one of the applicable forms. The Production Sharing Agreement (PSA), also known as the Production Sharing Contract, is one of those forms. As it is a specific system of allocating oil and gas rights, it requires a thorough understanding of its key issues in order to include the best provisions possible for each party. The goal of this chapter is to give the reader a working knowledge of PSAs. First, this chapter will cover some background information about the PSA, including how it originated and developed, why it occurred to be applicable in many countries, and in which countries it is currently used. Furthermore, the basic definitions

1. Background of Production Sharing Agreements[51]

The concept of production sharing was first used in Bolivia in the beginning of the 1950s. However, the modern production-sharing model was developed in Indonesia later in the 1960s. This concept has become widely accepted and applied worldwide by leading international oil and gas companies.[52] Before the implementation of the PSA, the main granting instruments in use were concession and licensing systems. As the name implies, production, not profit, is shared under a PSA, though some PSAs have evolved and include a share gross split. The main features of the PSA are that the State retains sovereignty over resources and hires the IOC as a Contractor to carry out oil and gas activities.[53] The IOC bears all the risks of exploration. Where there is a commercial discovery, the IOC is allowed to recover its costs from a specified percentage (generally around 50%) of monthly production, known as 'cost oil'.[54] The remaining production is split in predetermined percentages between the State and IOC as 'profit oil'. In terms of the fiscal package, there was no royalty payment since the State remained the owner of the resources on its origin, but it became more common later on. However, it is usual for the IOC to pay the State a signature bonus and production bonuses where production reaches certain levels over a period of time.[55] At the beginning, major oil companies were not keen on the PSA. They were reluctant to invest capital into a venture that they were not allowed to own or even to fully manage. There was also concern

[51] For further information about host granting instruments see: Kirsten Bindemann, *Production Sharing Agreements: An Economic Analysis* (Oxford Institute for Energy Studies, Oxford 1999), Tengku Nathan Machand, *The Indonesian Production Sharing Contract: An Investor Perspective* (Kluwer Law International, Hague 2000), *International Oil and Gas Investments, Moving Eastward?* (Graham & Trotman/Martinus Nijhoff, London 1994), Andrei Konoplianik, 'PSA Debate: Getting rid of rival' (2003) OGEL, Andrei Konoplianik, 'The fight against PSA in Russia, Who is to Benefit and why not the State?' (2003) 3 OGEL 1, Aida Avanessian 'Buy-back - the main mode of contracting in petroleum projects in Iran' (2009) 5 I.E.L.R. 167-170, Ian Rutledge, 'The Sakhalin II PSA – a Production 'Non-Sharing' Agreement, Analysis of Revenue Distribution' (2004) SERIS.

[52] Irina Paliashvili, 'The Concept of Production Sharing' (RULG, 1998) <http://www.rulg.com/documents/The_Concept_of_Production_Sharing.htm> accessed 15 March 2020.

[53] ibid 144.

[54] Gao (n 30) 66; Jennings (n 34) 16.

[55] Gao (n 30) 76.

about setting a precedent that might affect their operations elsewhere. Thus, the first foreign firms to enter into PSAs were independent oil companies, which have often been willing to compromise on the PSA terms which were unacceptable to the majors. Later, the major companies accepted PSA terms, as concerns grew about losing too much territory to the independents.[56] More importantly, despite the IOC's position as Contractor, rather than owner, the PSA still allows the IOC to have control over operations and access to production. Such access is one of the fundamental benefits of any HGI. The PSA is also attractive to HGs in developing countries because it allows such governments to retain ownership of resources, rather than conceding it would be the case the concession; it is also a form of agreement that encourages foreign investment (other issues in the State) aside.[57]

Today, the PSA regime is applicable in approximately 50 countries according to the EY 2019 Global Oil and Gas Tax Guide.[58] The main regions to implement the PSA are Africa, Central Asia and South-East Asia. In some of these countries, the PSA is one of several applicable regimes that may be chosen, while in others it is the only available form of HGI. Host governments, set up the PSA regime peculiar to their jurisdictional circumstances. The PSA has made its way to many different regions of the world, which indicates its flexibility in being able to handle diverse challenges that governments and petroleum companies face in developing petroleum resources.

2. Key Provisions of Production Sharing Agreement

The legal framework for the exploration and production of oil and gas resources in each country highlights the prospects for all the participants. One of the most important part of the legal framework is the contractual framework for E&P activities, particularly, PSAs. Sophisticated parties quite often negotiate these provisions in order to achieve the most favourable terms.

Examples of key provisions in executed PSAs may be searched and viewed on ResourceContracts.org[59], a repository of thousands of publicly available oil, gas and mining contracts and associated documents. Several of these contracts have been tagged and annotated, allowing for filtered searches for key provisions of interest across many contracts. Such a resource can assist with drafting and negotiation of PSA clauses. For example, an investor or host government can view previous contracts signed by their counter-party and evaluate how to draft or restructure such clauses in its new agreement/s. Drafting lawyers can also carry out targeted searches of specific key provisions to ascertain what is "market"/ industry norm (most common) in contracts signed over a specified period of time or in countries considered peer countries with respect to the oil and gas industry.

[56] Bindemann, (n 51).

[57] Nevertheless, the particulars of a State's Constitution may prohibit the use of the PSA. For instance, The 2006 Iraqi Constitution, Article 111 states that, 'Oil and gas are owned by all the people of Iraq in all the regions and governorates'. This may be interpreted as a constitutional restriction on the PSC since that allows IOCs to 'own' oil and gas when it receives cost and profit oil. Therefore, the technical service contract might be the only alternative since the IOC does not own oil and gas resources. However, it must be noted that the semi-autonomous Kurdistan region of northern Iraq uses the PSC. See Reed Smith LLP, 'Iraq oil and gas regime - part II' (Lexology, 04 June 2013) <https://www.lexology.com/library/detail.aspx?g=6c78b845-a73f-4554-be26-6ce88d79cea3>; Al-Khateen (n 37).

[58] *Global Oil and Gas Tax Guide* (EY Global 2019) <https://www.ey.com/en_gl/tax-guides/global-oil-and-gas-tax-guide-2019> accessed 15 March 2020.

[59] <www.resourcecontracts.org> accessed 15 March 2020.

The following table contains key PSA provisions followed by explanations of those provisions that are, from the writer's point of view, necessary to be included into a satisfactory and balanced PSA.[60]

A List of Key PSA Provisions

1. **Contract Area Relinquish-ment**	2. **Duration & Termination**	3. **Force Majeure**	4. **Minimum Work Pro-gramme and Budgets**	5. **Allocation of Production**
6. **Ownership of Assets**	7. **Measurement & Valuation**	8. **Use of Infra-structure**	9. **Export & Sale of Production**	10. **Exchange & Repatriation**
11. **Environmental Protections**	12. **Local Content**	13. **Natural Gas**	14. **Decommis-sioning**	15. **Reports & Studies**
16. **Discovery & Development Plan**	17. **Stability**	18. **Fiscal Sys-tems**	19. **Unitization**	20. **Confidential-ity**
21. **Anti-Corrup-tion**	22. **Communica-tion & Lan-guage**	23. **Governing Law**	24. **Dispute Reso-lution**	25. **Assignment**

2.1. Contract Area & Relinquishment

Contract Area means the area described in the PSA for the purposes of exploration, appraisal, development and production in the course of performing contractual obligations. The exclusive right to explore the Contract Area is given by the State party to the contractors.

While considering this provision, it is important to take into account the existence of any boundary disputes within the potential Contract Area. Such disputes may threaten the security of the infrastructure for exploration and production and also lead to subsequent disputes over the ownership of the product produced.

In addition, the Contract Area is normally the criterion for **ringfencing**. Ringfencing is the process of isolating one investment from another for accounting purposes. Ringfencing typically applies to cost

[60] Other key provisions to consider are: Supply to the domestic market; Cost reimbursement and payment to Contractor; Lifting and Disposal; Liability and Insurance; Guarantees; Books, Accounts and Audits. It would be useful to peruse some of the PSAs available on <www.resourcecontracts.org > so as to have a better understanding of the standard provisions that apply.

recovery of upstream operations. Commonly IOCs are keen to remove ringfencing or to allow the Contract Area to be as wide as possible in order to increase its chances to offset costs and operate with a larger portfolio of assets. Conversely, HGs are keen to limit such area. Usually, contracts give exploratory rights covering a large area. After a determined period of time and/or non-fulfilment of certain conditions, a "relinquishment" provision requires the contractors to give back to the HG a certain percentage of the undeveloped Contract Area (this principle is sometimes called "use it or lose it"). The application of this principle allows HGs to "re-sell" the exploration rights by tagging the relinquished area to another nearby area up for bidding or negotiation. The relinquishment percentage may be determined by the initial Contract Area or by the remaining Contract Area. Regardless, the essence is that commercial discoveries might be kept for a longer period.

2.2. Duration & Termination

The life of a PSA can usually be divided into the following phases:

1) Exploratory period – the period that the contractor has to explore for commercial hydrocarbons – can be broken into sub-phases:
2) Initial Exploration phase (about 4 years);
3) Analysis phase (applicable, but not always);
4) Drilling Exploration phase (about 3 years);
5) Appraisal phase (applicable, but not always);
6) Production phase (20-40 years) is the period when the contractor produces hydrocarbons in the areas with a commercial discovery. It commonly begins from the date of the declaration of a "commercial discovery", as defined in the HGI;
7) Decommissioning (formerly abandonment) phase.

As for the termination of a PSA, the contract should provide for the grounds upon which both HGs and contractors have the right to terminate the PSA. The events leading to termination may include:

- Failure of the Contractor to discover any oil or gas within the contract area prior to expiration of the exploration phase;
- Breach of the Contractor in the performance of its obligations under the agreement (this may be restricted to material obligations);
- Failure to make any payment required under the contract;
- An insolvency event;
- Failure to fulfil minimum work obligations; or
- Unjustifiable interruption of production for a defined number of consecutive days. However, where the contract area does not have a sizeable discovery and/or where the conditions of the

area are not particularly favourable, the HG may find it more beneficial to impose a penalty/fine for delay, rather than allowing such interruption to suffice for termination. This is unless the HG is guaranteed to market the area to another investor quickly.

Furthermore, this provision should include the procedural standards for termination (e.g., notice period, compensation, etc.). These details might vary in accordance with the relevant governing law.

2.3. Force Majeure

The force majeure clause is a contractual defence which frees a party from performing a particular obligation of the contract due to circumstances beyond its control.[61] It also frees such a party from any liability in damages or under any contractual remedy for breach, for as long as the impeding event continues.[62] As defined by the UNIDROIT Principles, a force majeure event:

- Is beyond parties' control;
- Could not reasonably be expected at the time of conclusion; or
- Could not be avoided or overcome (or its circumstances).

When including a force majeure provision, parties should determine: 1) definition of force majeure, 2) give examples thereof or a specific list of events that are to be considered force majeure, and 3) the obligations surrounding such event. Generally, the party claiming an event of force majeure is required to give notice of a force majeure event to the other party and use reasonable efforts to remove the causes of non-performance and to complete performance as promptly as possible. An extended force majeure event might lead to the termination of the relevant contract.

2.4. Minimum Work Programme

The minimum work programme is a crucial provision in the PSA. A minimum work programme is a description of work that the contractor commits to do while bidding or negotiating the PSA. There are options for defining the minimum work programme: either as a list of specific works to be performed or in monetary amounts. Like the former, the latter can be designed as either minimum work programme commitments, or minimum expenditure commitments. Also, it can be reflected in both or in "work units". It is important to notice that financial security instruments are often required to guarantee the fulfilment of minimum work programme in the time stated in the PSA. In case of a party's failure to fulfil this provision, the contractor must pay the State the difference between the amount actually expended and the minimum expenditure commitment. This is a useful advantage for the HG as it ensures the investor keeps its financial commitment to the work programme or that the State receives the benefit of any shortfall. Furthermore, such failure may give rise to termination of rights.

[61] International Chamber of Commerce (ICC) Force Majeure Clause 2003, ICC Hardship Clause 2003 <http://store.iccwbo.org/t/ICC%20Force%20Majeure%20Hardship%20Clause> accessed 01 November 2017.

[62] International Chamber of Commerce (ICC) Force Majeure Clause 2003, 2003 <http://store.iccwbo.org/t/ICC%20Force%20Majeure%20Hardship%20Clause> accessed 01 November 2017, para 4, 5 and 6.

2.5. Allocation of Production

The main feature of the PSA, as was mentioned earlier, is production sharing. Under a PSA, after the deductions of royalty (if applicable) and cost recovery petroleum (with or without cap), the State party and the contractor acquire the remaining profit oil proportionate to the amount of their agreed percentages shares. The contractor's share of profit oil is usually subject to income taxes. There are also hybrid forms of the PSA, where cost recovery systems are removed; therefore, the parties have only a gross split of production. Indonesia follows a similar style following its recent decision to amend its PSAs through the removal of the cost recovery process. The main rational to remove costs from the equation is to avoid complexities that attend auditing such costs in a fair, efficient and transparent manner. However, a similar problem might exist if the given tax system allows tax deductions. Allocation of production is generally calculated quarterly based on the production of oil and gas (in barrels per day) and the average fair market price per barrel. Commonly, PSAs provide for increase in the State's allocation in cases of an increase in the amount of oil and gas produced, increases in oil price and/or increases in some measure of project profitability. It could essentially be on a sliding scale basis.

2.6. Ownership of Assets

The upstream assets belonging to oil and gas companies are usually the intellectual property in respect of the exploration for oil and gas, the infrastructure, the appraisal, and the development and production of any discovery. It is typical for the title to all movable and fixed assets (e.g., equipment and infrastructure) acquired by the contractor during the course of the operations to vest in the State (either at the cost recovery point or at the end of the PSA); with the contractor only retaining the right to use the assets in the course of operations. That said, the contractor may not be required to transfer its intellectual property to the HG, this will depend on the specifics of the HGI.

The following represent the main options for the ownership of assets to pass to the State:

- Automatically upon purchase in, or importation into, the country;
- By the contractor notifying the State that it no longer requires the assets, and the state electing to acquire the assets at no cost;
- When the contractor fully recovers the costs of acquiring such assets;
- Upon the State requesting the contractor to transfer the title; or
- Upon the termination of the agreement and the State requesting such transfer.

2.7. Measurement & Valuation

Oil measurement is the process of quantifying the oil transferred along the supply chain. The unit of sale of oil is calculated in barrels of crude (BBL). The procedures for conducting measurement can differ on the basis of volumes of oil produced per day. Natural gas measurement can be carried out using orifice meters. Orifice meters help to determine the volumetric flow of natural gas by finding the differential

pressure between the upstream and downstream sections of a pipe (orifice) that is partially impeded.[63] The unit of sale for natural gas is thousands of cubic feet (MCF) or British Thermal Units (MMBTU). The valuation process is a significant one in any E&P project, as value affects expected gains/profit for the contracting parties[64].

Valuation methods vary depending on whether the transaction is being conducted on arms' length commercial terms or not:

1) For transactions on arms' length commercial terms the market price of the produced oil can be:
   - The free on board (FOB) market price at the delivery point; or
   - The actual price received by each party during a particular quarter for sales of similar oil.
2) For non-arms' length commercial terms sales, the market price is generally:
   - The "fair and reasonable" market price;
   - The prevailing market price; or
   - The world market price.

The market price is normally calculated on a quarterly basis. However, under certain circumstances, parties can agree to negotiate a new market price.

2.8. Use of Infrastructure

Infrastructure is usually addressed in PSAs since it is required to produce the relevant field. Parties can agree upon creation and use of infrastructure in the PSA and/or to tie into an existing infrastructure. Key infrastructure basically includes the following:

- Gathering pipelines/systems;
- Processing facilities;
- Storage; and
- Intra/interstate pipelines.

These components are necessary for the successful production of oil and gas. That is why when infrastructure is inadequate or wholly absent, the PSA should include language about the building of such infrastructure. This will allow for a proper estimation of costs prior to commencement. Issues of ownership and future use of this infrastructure should also be taken into account, particularly when the private party builds it and is responsible for the safety of its operations.

[63] For a further discussion see, John L Kennedy, *Oil and Gas Pipeline Fundamentals* (2nd edn, PennWell 1993).

[64] ibid.

2.9. Export & Sale of Production

This provision is quite challenging in terms of both negotiation and enforcement. There are a number of issues that should be taken into account when negotiating a PSA. In so as far as the production sharing involves the acquisition of a share in profit petroleum (or gross petroleum) by the contractor (oil and gas company), the goal of the company is to monetise and commercialise its petroleum. However, there may exist a number of restrictions that are imposed by particular HGs. Thus, in order to advocate for and / or create an effective regulatory regime, contractors need to consider the following:

1) Is the IOC allowed to export the production under the HG national legislation?
2) If yes, are there any restrictions?
3) If not, then at what price can the contractors' share of production be sold in the HG's domestic market?

As for exporting production, oil and gas companies normally seek to freely export both its share of production, equipment and technologies (free of export restrictions, taxes and duties; instead of these being transferred to the HG). As a restriction, there may exist a domestic marketing obligation (obligation of a contractor to sell a part of its production share to the domestic market). Its main disadvantages are that 1) usually domestic market petroleum prices are lower than normal market prices and 2) payments for that oil is made in domestic currency that tends to be "soft" and not exchangeable for hard currency at market rates. While this is not attractive to investors and therefore not a good marketing aspect for HGs to have these restrictions, governments often need to reduce the HGs' need to import petroleum for social and political reasons. The same problems may arise if oil and gas companies are not allowed to export their share of production at all.

Rules and policies guiding the export and sale of the investor's produce ought not be too rigid as this discourages foreign investors. On the other hand, policies in this regard ought not be too 'soft' as this does not favour the national interest. Therefore, HGs are encouraged to reach a workable balance in terms of guaranteeing that a reasonable level of production may be used to supply the domestic market, as well as ensuring that the investor is able to market the remaining percentage of its produce at the best market price. Ultimately, it is better to have a reasonable and balanced policy on this matter, whereby compliance is more realistic and can be monitored effectively, rather than an over-ambitious and rigid set of rules that is difficult to enforce.

2.10. Exchange & Repatriation

This provision is inextricably linked to the export and sale of production provisions. First, currency exchange can become a serious challenge if part of a company's profit petroleum is sold on the domestic market using a "soft" currency. To avoid this, the company may demand the inclusion of a clause requiring making payments from domestic market in hard currency (e.g., US Dollars, British Sterling Pounds, or Euros), in order to freely convert funds, to pay foreign employees with foreign currency, or to use a foreign bank as a repository. Further, the PSA may require the HG to have a payment obligation guaran-

tee. Such provisions are called "currency exchange control provisions". Nevertheless, PSAs in some jurisdictions provide that foreign exchange costs are not recoverable under the contract; from the perspective of the HG such provisions are necessary given that to do otherwise would increase State costs and reduce its profits. Repatriation of capital is a concern in relation to both the return on investment and to the oil and gas companies' assets (for example, technologies, equipment, etc.). In the event of a country placing a total ban on repatriation, this is likely to be disincentive factor for oil and gas companies and may require the addition of special provisions to be included in the PSA for the project to be deemed attractive (e.g., HG's ownership acquisition over certain assets with compensation, etc.).

2.11. Environmental Protections

Environmental protection has become a much greater concern as a result of HGs' heightened public functions to address such issues. Further, domestic legislation (as well as international norms) contain numerous environmental regulations that each party must comply with. Consequently, the contracting parties need to find a balance between environmental safety and effective development by means of:

1) Implementing advanced techniques, practices and methods of operation for the prevention of environmental damage;

2) Taking all reasonably necessary steps for the prevention and minimisation of environmental damage.

More than the investor, the HG has a vested interest in ensuring that environmental protection is a priority in the course of operations. The investor's social, moral and indeed legal obligation to the nationals of the Host State is as effective as the level of importance the HG gives it in the agreement — investors may provide a higher protection to the environment if the HG enforces relevant legislation and regulations on this. At the end of the contract, the investor will move on, and the HG will have to bear the brunt of disgruntled local communities where environmental damage affects their lives and livelihood.

Therefore, in order to address such concerns, the parties may incorporate the following type of terms into the PSA obligations:[65]

- Parties will abide by all laws, regulations etc. to protect the environment;
- Parties will take reasonable measures to protect and minimise damage to the environment;
- Parties will produce an environmental impact assessment plan;
- Responsible parties will clean up following any damage caused (in general, costs associated with this are not recoverable); or

[65] For some resources and guidance on international good practice standards on environmental management that might be useful in drafting of PSA obligations include: The Organisation for Economic Cooperation and Development (OECD)'s Guidelines for Multinational Enterprises; The United Nations (UN) Global Compact; The World Bank Environmental and Social Framework; and The International Finance Corporation's Performance Standards.

- Responsible parties will take reasonable efforts to restore the area to its original condition, as far as is practical, upon relinquishment, decommissioning and/or abandonment.

2.12. Local Content

Local content is generally referred to as the development of local skills, technology (through transfer), manpower and manufacturing when operating in a given country. Local content policies are adopted by HGs as rules and measures aimed at capturing benefits for the local population and economy. Determination of this provision typically lies in setting up a minimum level of local content for petroleum activities to be carried out in the host country. In order to meet such obligations, oil and gas companies can be required to outsource some of their functions locally by means of employment of local citizens and contractors where possible. This also extends to sourcing goods and services from the local market; training of local citizens, either directly or by means of a financial contribution, as well as the transfer of foreign technologies to the Host State. The company will usually face a penalty if they do not meet local content requirements. However, some countries, such as Indonesia, actually incentivise companies to go beyond their requirement in its revamped PSA system — an approach that more countries should consider following.[66] Nonetheless, smart local content rules help to develop communities through economic growth.

Nevertheless, HGs are encouraged to set up regulatory bodies or State departments who are tasked with enforcing local content rules and ensuring oil and gas companies comply with the said rules. As a starting point, the focus should be on setting a reasonable standard based on the level of expertise and supply available in the domestic market and enforcing it. This standard can then increase commensurate with the realities on the ground, inclusive of the market situation and the skills and capacities being achieved at the local level.

2.13. Natural Gas

The inclusion of natural gas provisions is a concern for both parties to a PSA. For the State party, the main issue is securing its right to the natural gas explored and produced as a separate resource. The HG may require the oil and gas company to sell the natural gas produced at a specified price. This ties into the issues related to a company's ability to reduce or avoid flaring gas. As a general rule, flaring gas is prohibited because it is harmful to the environment and also wastes valuable resources, although it might be allowed for safety reasons. In such cases, governmental approval is required. The PSA should be explicit on this point. Further, natural gas provisions normally intersect with a number of other PSA provisions, for instance, the measurement and evaluation provision (different units and prices). It is also normal practice to include a provision for sharing the produced gas as "cost gas" and "profit gas", similarly to how oil production is shared between the parties.

[66] See: HFW, Indonesia – Whats new? Moving cost recovery to gross split system in the upstream oil and gas sector, March 2017, https://www.lexology.com/library/detail.aspx?g=8e027f03-170c-455e-ade9-88df1bce5c4a accessed on 24th of September 2020.

2.14. Decommissioning

When a field production cycle comes to an end, and all the usable oil and gas has been processed, the facilities must be dismantled, and the surrounding area returned to its natural condition. In older contracts, decommissioning provisions were sometimes ignored because the related issues did not feature prominently on the agenda of most HGs; and were routinely referred to as abandonment procedures. However, decommissioning in the contemporary context requires thorough consideration in terms of its incorporation into a PSA; this is due to several reasons. Firstly, there are international and most likely regional and/or domestic legislation about such matters, which must be observed. Secondly, failure to meet decommissioning obligations may lead to adverse consequences/impact on the environment and therefore can be disastrous for many stakeholders. Lastly, a decommissioning deals with the important issues of costs, liabilities and guarantees and ultimately identifies who is going to pay/secure them and when.

2.15. Report & Studies

A PSA might establish activities related to the efficient performance of the PSA. These are in the form of reports and studies, which the host government owns. Despite the fact that the contractors are in charge of operations (typically headed by the operator), under the PSA provisions normally identify the contractor as being obliged to inform the State party of the result of ongoing operations, successes, etc. It is important for HGs to set up a suitable management committee, which ensures that the relevant information from the operator is provided as and when necessary. This should not just be a 'tick-the-box' exercise: monitoring and enforcement can aid performance. Conducting studies provides for a more thorough risk assessment, from technological data to environmental prospective. Also, the reporting obligations of contractors should require consistent regular intervals and/or in accordance with the schedule provided for in the PSA. The PSA may also address the ownership of geological data to the extent not adequately covered by the law. The State has an interest in ensuring that it owns this data, but it may consider setting out provisions that give the entity who collected the data the exclusive right to use or market data collected for a defined limited period of time. This data will remain useful to the State as it can be used in future bidding rounds or negotiations. It also assists the State in understanding the nature and quality of reserves within a specified area.

2.16. Discovery and Development Plan

Under a PSA, the contractor is obliged to promptly inform the State following any discovery of oil and/or gas. If the contractor considers the discovery to be significant and worthy of appraisal, it will typically submit an appraisal work programme to the State. Following the completion of the appraisal programme, which typically has to be completed within a set time frame, the relevant Parties have to determine whether the discovery is commercial. It is important to make clear in the agreement whose decision on the issue of commerciality will be final, so as to avoid or at least reduce dispute. If a commercial discovery is declared, the contractor will prepare a development plan and, once the management committee and/or the State has approved the plan, commence work on the area in question. In some jurisdictions, if commerciality cannot be established by the given deadline, the contractor may be

able to extend this period, either for a distinct period of time or for such time as is sufficient for the contractor to carry out the necessary appraisal work. If following a discovery, the contractor decides that the discovery will not merit appraisal or, after appraisal, considers that the discovery is not commercially viable, it may be required to relinquish the area concerned.

2.17. Stability

Generally speaking, stabilization clauses seek to prevent changes to the contract or protect the investor from actions of the State that may have an adverse effect on the agreement, as the contractor is less likely to be able to make such changes unilaterally. In the strictest form, stabilization clauses attempt to ensure that after signing the PSA the State party, will not be allowed to unilaterally change its provisions nor its legal regime. Under such strict stabilization clauses, the parties agree to stand by the terms that were originally agreed upon. There are several forms of stabilization clauses, examples of which, in executed agreements, may be viewed on ResourceContracts.org.[67] Some common versions of stabilization clauses include a *freezing clause*. This is the strictest form of the stabilisation clause. It provides that laws applicable to operations specified in the PSA should be those laws and regulations that were in force at the time the contract was signed. Simply, it means that the contractors are guaranteed that they will not be subject to changes in governing legislation, and that future laws will not affect the PSA.

Such freezing clauses may cover all laws and regulations in place at the time the contract was signed or may be limited to tax policy changes and therefore profitability of the project for the parties, especially in relation to newly introduced tax instruments that may adversely affect the financial circumstances of the parties. Such clauses may also be time-bound.[68] For example:

> "*The Contractor shall be subject to the provisions of this Contract as well as to all laws and regulations duly enacted by the Granting Authority and which are not incompatible or conflicting with the Convention and/or this Agreement. It is also agreed that no new regulations, modifications or interpretation which could be conflicting or incompatible with the provisions of this Agreement and/or the Convention shall be applicable".* – 1989 Tunisian Model Production Sharing Contract, Article 24.1(2).[69]

A more recent example from a Suriname Production Sharing Contract 2011 provides:

> '*A Contractor, shall be subject to Income Tax pursuant to the rates applicable on the date that the petroleum agreement enters into force. In case the tax rates are adjusted, such adjustment shall not be applicable to the Contractor and shall have no influence on his liability to pay taxes pursuant to the Income Tax Law of 1922.'*[70]

[67] Resourcecontracts <https://resourcecontracts.org/search?q=&resource%5B%5D=Hydrocarbons&annotation_category%5B%5D=Stabilization> accessed 15 March 2020.

[68] For example, section 17 of Liberia's Revenue Code as amended 2011 allows the Government to accept stabilization clauses in petroleum, mining or renewable resource projects only for itemized fiscal terms and for a period not to exceed 15 years from the effective date of the agreement.

[69] Tunisian Model Production Sharing Contract, art 24.1, quoted in Cameron, (n 21), p. 71.

[70] Production Sharing Contract For Petroleum Exploration, Development and Production relating to Block 45 Offshore Suriname Between Staatsolie Maatschappij Suriname N.V. and Kosmos Energy Suriname 2011, art 18.4.1

The more modern forms of stabilization clauses are generally considered as equilibrium clauses. An *equilibrium* clause protects foreign investors from laws and regulations adopted after the execution of the HGI by requiring the host government to indemnify the investors from and against the costs of complying with the new laws and regulations or specifically new fiscal laws or regulations. Depending on the negotiating strength of the foreign investors and the host government's desire or need for the project and the investors' investment, these clauses may be full or limited.[71] For example, (covering changes in laws generally):

> "*Where present or future laws or regulations of Turkmenistan or any requirements imposed on Contractor or its subcontractors by any Turkmen authorities contain any provisions not expressly provided for under this Agreement and the implementation of which adversely affects Contractor's net economic benefits hereunder, the Parties shall introduce the necessary amendments to this Agreement to ensure that Contractor obtains the economic results anticipated under the terms and conditions of this Agreement*" – 1997 Model Production Sharing Agreement for Petroleum Exploration and Production in Turkmenistan.[72]

Another example (covering specified changes to only fiscal laws and explicitly providing for validity of other changes in law):

> *17.10 "If any change in or to any Indian law, rule or regulation dealing with income tax or other corporate tax, export/import tax, excise, customs duty or any other levies, duties or taxes imposed on Petroleum or dependent upon the value of Petroleum results in a material change to the expected economic benefits accruing to any of the Parties after the date of execution of the Contract, the Parties shall consult promptly in good faith to make necessary revisions and adjustments to the Contract in order to maintain such expected economic benefits to each of the Parties, provided, however, that the expected economic benefits to the Parties shall not be reduced as a result of the operation of this Article".* 2010 Model Petroleum Sharing Agreement, India.[73] Both examples are of economic rebalancing stabilization clauses.

An example of a risk allocation stabilization clause in favour of the investor is Article 31.1 of the Model PSA of Kurdistan which provides that:

> "*The GOVERNMENT shall indemnify each CONTRACTOR entity upon demand against any liability to pay any taxes, duties…or withholdings assessed or imposed upon such entity which relate to any of the exemptions granted by the GOVERNMENT".*[74]

Another type of stabilization clause is the *intangibility or inviolability clause***.** This type of clause prohibits any unilateral change to the contract without the consent of the contracting parties.[75] This provides that

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[71] Economic Equilibrium Clause (*Thomson Reuters Practical Law TM*) < https://is.gd/pH4mj4> accessed 15 March 2020.

[72] Full contract available at: <https://resourcecontracts.org/contract/ocds-591adf-3137703237/view#/>accessed 15 March 2020.

[73] Full contract available at: https://resourcecontracts.org/contract/ocds-591adf-2126098674/view#/pdf accessed 15 March 2020.

[74] Model Production Sharing Agreement of the Kurdistan Regional Government of Iraq 2007 <http://www.krg.org/uploads/documents/KRG%20Model%20PSC_2007_09_06_h14m3s46.pdf>;<http://mnr.krg.org/images/pdfs/KRG_Model_PSC_production_sharing_contract_20071112.pdf> accessed 22 February 2020.

[75] Cameron (n 21) 74.

any party cannot unilaterally modify or terminate the PSA. A characteristic feature is that it provides that should there be any changes to the contract, they must be subject to the mutual consent of the contracting parties.[76] For example, the Mozambique Model PSC provides that

> "*the government will not without the agreement of the contractor exercise its legislative authority to amend or modify the provisions of this agreement…'".*[77]

Another example reads:

> *The Government of Libya will take all steps necessary to ensure that the Company enjoys all the rights conferred by this Concession. The contractual* rights expressly created by this concession shall not be altered except by mutual consent of the parties. [...]This Concession shall throughout the *period of its validity be construed in accordance with the Petroleum Law and the Regulations in force on the date of execution [...]. Any amendment to or repeal of such Regulations shall not affect the contractual rights of the Company without its consent*" – From Concession agreements Texaco signed with Libya Between 1955 and 1966.[78]

A *'Hybrid'* clause can include elements of two or more variants of the stabilization clause. Its aim is to protect parties against destabilization and unilateral actions.[79] For example, a recent Ecuadorean PSA contains a hybrid stabilization clause. The applicable law at the time the contract is made is frozen (freezing clause), any changes to the contract must have the consent of the contracting parties (intangibility clause) and where an amendment to the taxation regime occurs, there is an adjustment of production sharing percentages (economic rebalancing clause).[80] Nevertheless, it is more common to provide the intangibility clause along with the equilibrium clause.

Stabilization clauses fall into two variations: full and limited. Full stabilization provisions apply to all forms of changes in the law. These seek to insulate the agreement and consequently the investor, from a broad range of changes in the law. Limited provisions protect the agreement and investor, from a limited set of legislative changes, one of the most common is in the area of taxation.

Another aspect to be taken into consideration is the risk of nationalization and expropriation (i.e., government acquiring control over the foreign assets or nullifying foreign control over them, either directly or indirectly[81]). Hence, by incorporating stabilization provisions into the PSA, the IOC seeks to neutralise the State's power to make unilateral changes to the contract that would affect the IOC's investments.[82]

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[76] ibid.

[77] The Mozambique Model Production Sharing Contract 2001, art 30(7)(d) & (e).

[78] *Texaco Overseas Petroleum Company, et al. v. The Government of the Libyan Arab Republic*, Award on the Merits, 19 January 1977, 17 Int'l Legal Materials 1 (Texaco v. Libya).

[79] Mario Mansour & Dr Carole Nakhle. 'Fiscal Stabilization in Oil and Gas Contracts: Evidence and Implications' (2016) Oxford Institute for Energy Studies.

[80] Cameron (n 21) 79-81.

[81] George Joffé, Paul Stevens, Tony George, Jonathan Lux, and Carol Searle, 'Expropriation of oil and gas investments: Historical, legal and economic perspectives in a new age of resource nationalism' (2009) The Journal of World Energy Law & Business 2 1, 3, 23. There are nuanced differences between nationalization and expropriation. Nationalization typically involves the entire industry (e.g., oil industry), whereas expropriation is less sweeping and affects only some investors in said industry.

[82] Ronnah Tumusiime, 'Expropriation, Nationalization of Oil and Gas Assets, and the Relevance of Stabilization Clauses'<https://is.gd/kCn6MO> accessed 15 March 2020.

Admittedly, the investor would face an uphill battle in seeking specific performance of such 'neutralising power'. The investor's remedy would usually lie in compensation.

It should be noted that not all countries provide for stabilization, and some might even include clauses explicitly providing for the applicability of laws currently in force during the contract. The constitution of a State may also prevent its government from entering into stabilisation agreements. For example, under the English principle of parliamentary sovereignty,[83] '[t]he legislature is not bound by its own legislation',[84] neither can one parliament bind the next.[85] Therefore, a clause restricting the powers of the legislature would be invalid in the United Kingdom. Australia, Brazil, Canada, Norway, and Saudi Arabia are other examples of States which do not permit stabilisation guarantees.[86] Another example of relevant language is as follows:

> *No terms or provisions of this Contract, including the agreement of the Parties to submit to arbitration hereunder, shall prevent or limit the Government of the Republic of Indonesia from exercising its inalienable rights.* - Apex (Yapen) Ltd., Pertamina, Yapen Block, PSA, 1999[87]

The decision on use and scope of stabilization clauses will depend on what assurances the country believes it must provide to attract investment, based on a variety of factors, such as the investor's perceptions of fiscal instability, the HG's level of political risk and the country's geological attractiveness. For example, host governments will likely not offer and indeed should not offer or accept proposals to include fiscal stabilization clauses if they can still attract the required investment without it. HGs will negotiate to limit the scope and duration of fiscal stabilization and may propose that investors pay extra for fiscal stabilization and make explicit exclusions for changes to non-fiscal laws and regulations, particularly those that relate to environment, labour, health, safety, human rights.

Therefore, when drafting an economic equilibrium stabilization clause, parties should consider covering the following to avoid or at least mitigate against disputes later:

- Adding a renegotiation clause to restore the economic equilibrium in the event of changes to the fiscal framework that have a material adverse impact on the financial position of the company; if there is a profound change in circumstances that affects the economic expectations of either party.
- A provision for dispute resolution so as to determine whether a material adverse effect has occurred and as to the nature of the amendment or compensation required in the event of a material adverse effect.

[83] According to AV Dicey, 'The principle of parliamentary sovereignty means neither more nor less than this: namely, that Parliament thus defined has, under the English constitution, the right to make or unmake any law whatever; and, further, that no person or body is recognised by the law of England as having the right to overside or set aside the legislation of Parliament'. AV Dicey, *The Law of the Constitution* (Macmillan 1885) 39. See also Hilaire Barnett, *Constitutional & Administrative Law* (11th edn, Routledge 2016) 120.

[84] Sornarajah, (n 10) 282.

[85] Parliamentary sovereignty, <http://www.parliament.uk/about/how/sovereignty/> accessed 10 August 2018. See also AV Dicey, *The Law of the Constitution* (Macmillan 1885) 39.

[86] Peter Cameron, 'Stabilisation in Investment Contracts and Changes of Rules in Host Countries: Tools for Oil & Gas Investors' (2006) Association of International Petroleum Negotiators (AIPN) (Final Report) 1, 13,17 <http://www.rmmlf.org/Istanbul/4-Stabilisation-Paper.pdf> accessed 23 May 2018.

[87] Full contract available at: https://resourcecontracts.org/contract/ocds-591adf-2985497670/view#/pdf accessed 15 March 2020.

- Explicit exclusions for non-fiscal changes to the law such as environment, labour, health, human rights and changes in law. [88]

2.18. Fiscal System

A fiscal system is a combination of fiscal instruments that provide for the State's income flow. Basic fiscal instruments are:

(1) **Signature bonuses**. This is a onetime fee for the granting and securing of an exploration and production right, paid irrespective of the economic success of the contractor. Many countries require the payment of signature bonuses in order to ensure some income before the production phase. Signature bonuses may provide some compensation for government costs in conducting the bidding process and offering the opportunity to invest in the country's upstream sector.

(2) **Royalty**. Whenever a company begins oil and gas production, the law might entitle the owner of the mineral a portion of the total production. Therefore, a royalty is the portion of production the mineral owner receives. The resource owner can agree with the contractors to take it in kind or in cash. The royalty is normally based on production (not profit) and as such, is free from costs and charges. Oil and gas companies base the price of oil and gas royalties on a percentage of the gross production from the field. Resource owners might try to negotiate a higher royalty as possible when agreeing to enter a contract with an oil or gas company,[89] whilst IOCs are keen to negotiate for the removal or reduction of royalty rates. Under a PSA, the HG usually stands in for the resource owner and receives such royalty.

(3) **Taxation**. In historical PSAs, taxation was replaced with the production sharing. However, several modern national legislations may still require oil companies to pay taxes, including corporate taxes, income taxes, etc.

(4) **Production Sharing**. After applying the relevant cost recovery system, HGs begin acquiring their share of production, as stipulated by the PSA.

(5) **Others.** Some PSAs might include other type of payments such as production bonuses, rental fees, etc.

PSAs are normally considered a separate fiscal regime. Nonetheless, these still vary from country to country (e.g., PSAs with royalties or without royalties). In different jurisdictions, these fiscal instruments can be combined differently into a fiscal regime, which in one way or another can create favourable and attractive conditions for parties/potential parties to PSAs. In some cases, the oil and gas fiscal regime can prevail over other legislation in the said country, or it might work cumulatively with the general fiscal system of that country. Each State must consider the issues that attend it in terms of political stability, commercial attractiveness of fields, importance of foreign investment, legal and social risks, etc., and create its desired PSA, having considered these issues.

[88] 'Oil Contracts: How to Read and Understand Them' (*OpenOil*, 2013) <https://openoil.net/portfolio/oil-contracts/> accessed 15 March 2020, 182.

[89] 'How to Calculate an Oil and Gas Royalty' (*CourthouseDirect.com*, 28 February 2018) <https://info.courthousedirect.com/blog/calculate-an-oil-and-gas-royalty> accessed 15 March 2020.

2.19. Unitization

The concept of unitization is derived from the word "unit". It is a mechanism devised by the combination of numerous oil and gas wells to produce from a specified pool of reservoir. There are circumstances that arise where the contractors may discover that an oil and gas reservoir, which they intend to exploit, stretches into that of another adjoining land not covered by the PSA.[90] This may require the area to be unitized so that neither party suffers from a race to recover oil and gas before the other recovers it, which would not be the most efficient manner of production.

Unitisation is the joint development of an oil or gas field where the field has been broken down into several contract blocks/areas by the State. The State would not know whether or not a reservoir crosses several blocks until oil and gas operations begin in the area. A Unit Operating Agreement is the agreement to jointly operate on an entire producing reservoir or a prospectively productive area of oil and/or gas. The objective of unitization is to provide for the unified development and operation of an entire geologic prospect or producing reservoir, so that exploration, drilling, and production can proceed in the most efficient and economical manner by the relevant operator. In the absence of unitization, the various companies with rights to the different contract areas would effectively be in a race to exploit as many resources from the joint reservoir, as possible. This would lead to a duplication of efforts and aggressive drilling, which may reduce the volumes of oil/gas recoverable from the reservoir, as well as cause environmental damage.[91]

It is also possible that a reservoir crosses the boundary of two States. In such cases, cross-border unitisation would be necessary. Cross border unitization is not straightforward; it can only work if both nations expressly agree to co-operate in the development of the common pool within a crude oil reservoir.

2.20. Confidentiality

Dealing with oil and gas assets requires working with a lot of data, the majority of which is valuable and requires protection. Information can be owned by one party but needed by another in activities such as joint ventures. Therefore, if it is considered confidential, its disclosure requires special provisions to protect it.[92] The main purpose of the confidentiality provision is to ensure that the parties provide a legally binding undertaking not to disclose "confidential information" to a third party; in such circumstances the confidential information needs to be clearly established as being confidential (usually this includes all data, information and reports relating to petroleum operations). Also, for the sake of clarity and the avoidance of disputes, parties need to stipulate the information that is not confidential. Furthermore, these provisions should give a list of permitted disclosures (i.e., to whom a party can disclose confidential information to without the need to obtain prior consent). It usually includes affiliates, potential assignees, banks, consultants and employees, who generally must also undertake to maintain

[90] Kato Gogo Kingston, 'Lecture 7. Production Sharing Agreements and Risk Sharing Contracts' (Kato Law Centre) <http://www.katolawcentre.com/user/image/7.-joint-develepment-contracts.pdf> accessed 25 April 2020.

[91] Danielle Beggs and Justyna Bremen, 'Unitisation and unitisation agreements' in Geoffrey Picton-Tuberville (ed), *Oil and Gas: A Practical Handbook* (Globe Law and Business 2009) 57; Smith (n 1) 627.

[92] Examples of confidentiality clauses in hydrocarbons contracts can be found on ResourceContracts available at: <https://resourcecontracts.org/search?q=&resource%5B%5D=Hydrocarbons&annotation_category%5B%5D=Confidentiality> accessed 15 March 2020.

confidentiality of the information. Finally, the return or destruction of confidential information (terms, procedures, etc.) may be included in that provision. The provision will generally contain a long-stop date, after which the confidentiality obligations will cease. Nowadays, there is a tendency to disclose the signed PSAs. It is done to provide for transparency and some other control measures. Disclosure of PSAs is a requirement for member countries of the Extractive Industries Transparency Initiative, applicable to contracts granted, entered into or amended from 1 January 2021.[93] Parties should therefore avoid including clauses that make the contract itself confidential. However, it is obvious that the parties thereto prefer classifying technical information and alike as confidential. These provisions have to be negotiated in relation to both the HG and the contractor.

2.21. Anti-Corruption

It is not uncommon to include the anti-corruption provisions in the text of PSAs. Both domestic legislation and international treaties provide regulations concerning anti-corruption measures, including those carrying civil and criminal liabilities. However, it is possible to introduce some of these measures in the PSA. Such provisions can, for example, require the contractor to warrant that it has not made and will not make any gift or reward to any officials or employees of the State to induce or reward such persons for any acts taken in accordance with their duties. However, national legislation provisions make the biggest impact here as they set out more serious negative consequences for the wrongdoing party (e.g., criminal liability). The HG must pursue anti-corruption seriously and actively include this in its mandate for the petroleum and other industries. Corruption has far-reaching consequences, for the State, its nationals, the IOC and future investors.

2.22. Communication & Language

Communication between parties is an essential concern. All the means of communication must be included into the text of the PSA (telephone numbers, email addresses, postal addresses, etc.). Language requirements are necessary in certain jurisdictions. Indeed, there may be a requirement to conclude the original agreement in one official language, where in a dispute it would prevail over the same agreement executed in another language. To this end, it is imperative that translation is done through official translation services that can duplicate the agreement in another language, but to the same effect/rendering, as far as is possible. Frequently, there can be a provision that stipulates that counterparts of the PSA executed in more than one language are equally enforceable even though the official language tends to prevail.

2.23. Governing Law

A Governing law clause normally establishes the law, in accordance with which the PSA must be governed, construed and enforced. This is a typical boilerplate clause. However, choosing the governing law is not a boilerplate task. It requires serious consideration with regards to how that law will interpret the PSA terms and conditions. It is important to agree on this provision for several reasons. Firstly, all the parties will be interested in the application of the legislation that puts each one of them in a more

[93] 'EITI Standard 2019' <https://eiti.org/document/eiti-standard-2019#r2-4> accessed 15 March 2020.

favourable position. Secondly, the absence of this provision leads to enforcement of conflicts-of-law rules, which vary in different jurisdictions. Governing law can be determined by the parties to the PSA by:

- Referring to a particular country's national legislation (domestic or foreign); and
- By referring to international principles.

Modern PSAs are typically regulated by domestic legislation. In older PSAs, one can come across foreign legislation set out as applicable, although this is rather an exception in the current times, given that most HGs would not wish to concede on this issue. Sometimes, a PSA might refer to international principles in the governing law clause. Despite this, it is important to set out the acceptable position where such international principles conflict with the governing law. International principles often reflect the best-accepted practices and principles of the petroleum industry. Nevertheless, the governing law would normally be the domestic one.

2.24. Dispute Resolution

Dispute resolution is another boilerplate clause but should not be chosen without care. It is a good opportunity for the parties to establish the ways of resolving disputes which may potentially occur in the future on matters related to the PSA.[94] Normally, the dispute resolution clause would contain the obligation of the parties to attempt to **resolve the dispute amicably, this should be the goal**. The time frame for such discussions to be conducted can be set out in this clause as well (typically up to three months). If the parties have failed to come reach a compromise within the discussions, this clause can provide for alternative dispute resolution (ADR) methods.

ADR can include arbitration, mediation or expert determination. The preferred option is usually **arbitration**, as its procedures can be fully agreed to by the parties (arbitrators' expertise, their number, location, rules, etc.). Parties are usually required to engage the national courts in order for them to give effect to the arbitration agreements and to enforce the arbitration awards. Regarding the issue of enforceability, some States attempt to use their sovereign immunity to exclude the contractors' ability to enforce an award against the State, to sue the State for breach of contract. There may also be attempts by States to require parties to obtain governmental consent before they can sue the State. However, under the PSA in some jurisdictions, such immunity is expressly waived in respect of the enforcement and execution of any award rendered by an arbitral tribunal. More generally, the inclusion of an arbitration agreement would usually (but not always) suffice as a waiver of State immunity. For the avoidance of dispute, investors may request an express waiver of immunity from the State, in regards to the enforcement of arbitral awards. Issues relating to the enforcement of foreign arbitral awards are internationally governed by the Convention on the Recognition and Enforcement of Foreign Arbitral Awards

[94] Examples of dispute resolution and arbitration clauses in hydrocarbon contracts can be found on Resource Contracts available at: <https://resourcecontracts.org/search?q=&resource%5B%5D=Hydrocarbons&annotation_category%5B%5D=Arbitration+and+dispute+resolution> accessed 15 March 2020.

1958 (in force 1959) (also known as the New York Convention). Under Article V of the Convention,[95] the grounds for refusal to enforce an arbitral award are restricted to a narrow list of defects affecting the arbitral procedure or the award. As analysed in detail in later sections of this handbook, these defects must be of a serious nature and include irregularities, such as invalidity of the arbitration agreement, lack of due process or violation of the public policy in the State where enforcement is sought. It can be compared to provisions under Article 36 of the UNCITRAL Model Law on International Commercial Arbitration[96] as being virtually identical.[97]

Mediation is an informal, voluntary, non-binding, confidential and interest-based method of dispute resolution. Parties are free to terminate mediation at any time after the first meeting. No decision can be imposed on the parties involved, and they may or may not agree upon a negotiated settlement.[98] This should generally be the first step in a dispute after an informal/formal discussion between parties. Nevertheless, the nature of the dispute may be one where it is clear that mediation is unlikely to succeed.

In **expert determination**, the parties agree to be bound by the decision of an independent third party (i.e., an expert). An expert determination may be sought broadly in two categories of dispute: where a valuation is required and where an expert opinion is needed on a technical matter.[99] However, an expert does not have the power to make directions or orders so as to fill voids left by the parties, if the process they have agreed on is not sufficiently certain for enforcement. The role of an expert is to give meaning or interpretation to the issue at hand, based on the information in the agreement. Finally, certain disputes might have to be solved at the given **court**. The extent to which the court can intervene is much less limited than with the other dispute resolutions.[100] Currently, there is a tendency to pursue alternative means dispute resolution, due to a number of reasons; these include economy of time, financial costs, higher levels of confidentiality in the arbitral process and parties' control over the proceedings. At the same time, there may arise more challenges in respect of enforcement.

2.25. Assignment

Assignment is the process, where one party, the assignor, transfers its rights to another party, its participating interest under the PSA, rights and obligations to another party, the assignee. Typically, PSAs allow parties to assign their participating interests thereunder, fully or partly, to an affiliate or non-affiliate. However, there are generally limitations on assignment from an Operator. In negotiating the assignment provisions, the parties should take into consideration the following issues:

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[95] The New York Arbitration Convention on the Recognition and Enforcement of Foreign Arbitral Awards [1958] art V.

[96] UNCITRAL Model Law on International Commercial Arbitration [1985] art 36.

[97] J William Rowley QC, Emmanuel Gaillard and Gordon E Kaiser (eds), *The Guide to Challenging and Enforcing Arbitration Awards - First Edition* (1st edn, Law Business Research Ltd 2019).

[98] 'Mediation' (*Dispute Resolution Hamburg.Com)* <http://www.dispute-resolution-hamburg.com/mediation/what-is-mediation/> accessed 15 March 2020.

[99] 'Expert determination' (*Thomson Reuters Practical Law TM*) <https://is.gd/bmxxtz> accessed 15 March 2020.

[100] Robert Hunt, 'The Law Relating to Expert Determination' (2008) <http://www.roberthuntbarrister.com/ExpertDetLawApril2008.pdf> accessed 15 March 2020.

- The assignor's compliance with its financial obligation for minimum work commitment (e.g., Morocco);
- Preferential rights of the other contractors, this may be phrased to provide other joint venture parties a 'right of first refusal' (e.g., if there is a JOA in place with such contractual provision);
- Preferential rights of the State party (e.g., Angola);
- Whether there is a requirement to obtain the approval of the HG (e.g., common in most countries apart from some areas in North America).

Usually, assignment of a participating interest under the PSA requires prior governmental approval. One reason for this is so that the HG can evaluate the financial and technical capability of the potential assignee (the latter being relevant to an Operator assignment). From this point further issues may arise such as: the extent of the discretionary powers of HG to approve the assignment; payments (i.e., assignment bonus or capital gains) and other conditions for approval; and the possibility of withholding the approval without due reasons. The HG can create transparency in this process by setting out formal guidelines for assignment, the conditions the relevant authority would consider and an evidence-based explanation in the event that an assignee is rejected. A subsequent issue arising after acquiring an approval is the assignor's release from the obligations/liabilities under the PSA. Typically, the assignor remains responsible for performing its contractual obligations that had arisen before the assignment—this may include decommissioning. However, the assignor does not normally incur obligations and liabilities arising after the assignment.[101]

[101] Examples of assignment clauses in hydrocarbons contracts can be found on ResourceContracts available at: <https://resourcecontracts.org/search?q=&resource%5B%5D=Hydrocarbons&annotation_category%5B%5D=Assignment+or+transfer> accessed 15 March 2020.

Key Chapter Points

To sum up, PSAs are fairly flexible to negotiate, but particular areas therein can be complex to administer (these will be discussed in the next Chapter). In analysing the essence of a PSA, the relations between the State and the investor are inherently contractual like other systems. However, the right of ownership belongs to the State, and the contractor receives compensation for producing oil in the form of produced oil and gas (cost and profit oil). Simply put, the produced product is the property of the State until a certain point, unlike concession systems where the title changes at the wellhead and service contracts where a company might never acquire an ownership interest in the petroleum. In this case, the tax system envisioned by law is somehow replaced by a special new system of settlements between the parties – production sharing. It can either substitute any other fiscal system, or combine with them. As for the cost recovery element of production sharing under the PSA, in some countries there is a tendency to remove it. This trend is likely attributable to the complexity of auditing these costs while concluding the PSA, since these stages are separated from each other by dozens of years. This issue will be further examined in the next chapter. In order to protect their interests, the parties should consider all the provisions mentioned above in the way that balances their legitimate interests (and interests of the other stakeholders). Generally, the terms can be tailored for particular upstream projects to better meet the requirements of that project. Further, PSAs can be beneficial to governments of countries that lack expertise and/or capital to develop their resources and are willing to attract foreign companies to do so. They can be very profitable agreements for the oil and gas companies involved, but, once again, often involve considerable risk. Among the examined provisions to be included into the PSA, there are some of them that require a more thorough understanding and negotiation since these provisions often become the subject of disputes. These provisions will be covered in the next chapter.

CHAPTER 3: Negotiating the Production Sharing Agreement & Key Challenges and Disputes – Post Award Part 2

1. Negotiation of Productions Sharing Agreements

The negotiation of PSAs typically involves the relevant parties of the agreement. The State is one party; its primary interests include protection of the national interest and attraction of investments. Other parties involved are potential contractors, which are international oil and gas companies, who are willing to contribute to perspective development projects, in order to diversify their risks and maximise the return on their investments.

The previous chapter provided an overview of the basic components to incorporate into a PSA. These components, or provisions, can be classified into:

- "Boilerplate" provisions are standard provisions that are basically included in any contract, but do not make them any less important. However, once properly defined in the contract, these normally do not result in further disputes and/or challenges; and
- Other key provisions (which have also been defined in chapter 2) may be more challenging in relation to compliance.

The key provisions are of the biggest concern for this chapter and parties negotiating PSAs. It is important to underline that these provisions can potentially cause challenges in compliance, as well as become subject to disputes. This is why it is critical to give more attention to these provisions during the negotiation stage. In the next section we will outline most challenging PSA provisions and its perspectives.

2. Key Challenges for Compliance and Potential Dispute Issues

From the twenty-five provisions that were discussed previously in Chapter 2, we have defined 10 topics that require more attention because of their complexity. They are:

1) Compliance with the minimum work programme
2) Maximisation of Economic Recovery of the relevant fields
3) Fiscal System
4) Health, Safety and Environment
5) Local Content
6) Anti-corruption, Transparency and Accountability
7) Use of Infrastructure
8) Decommissioning
9) Assignment

10) Export and Sales of Production

Further in this chapter, each one of these provisions will be examined using the following criteria: 1) the parties' undertakings thereunder; 2) the root causes for potential disputes arising out of these provisions; outcomes of non-compliance and, therefore, 3) the necessity to provide for stable and fair terms which address the interests of all parties involved.

2.1. Compliance with the Minimum Work Programme

The Minimum Work Programme is one of the most important provisions in a PSA. Compliance or non-compliance entails different legal consequences. Under the minimum work programme provisions, parties undertake an obligation to perform a certain standard of work (defined in one of the ways determined under the PSA) on a contract area, within the fixed period of time, normally on each phase of the exploration period. Besides, the options for the execution term might also be early execution (with succeeding termination), or the opportunity to agree upon the extension of such period of time. Under the minimum work programme, each party has its own minimal commitment obligations. This means that each party has standards, defined in accordance with the PSA, determining the minimum amount of work to be carried out and/or the sums of money not less than which the parties have to expend in the course of their contractual activities. Also, the minimum work programme typically includes budget conditions for each phase of the project.

Apart from that, a minimum work programme provision normally contains the procedural standards for the submission and approval of the work programme and budget (term for submission, e.g., within 30 days from the Effective Date, or the party for submission, e.g., Advisory Committee, etc.). Furthermore, it should provide for opportunities (if any) for the parties to include amendments and changes and procedures to do so, e.g., obligation to serve notice by one party to another, that the former is willing to amend the minimum work programme. The right of the latter party to withhold the approval can also be included and described in detail (with necessary conditions to protect the submitting party from the unreasonable withholding of the approval of the amendments). This presupposes that subsequent approval can and should be granted where the contractor remedies or addresses the issues for which approval was previously declined. The State party may require the contractor to provide the financial security to guarantee the future performance of the minimum work programme (for instance, bank guarantee). Conditions of such security interests should be clearly stated in those provisions. Successful performance of the minimum work programme leads to one or more of the following consequences:

- Continuation of PSA execution with excess work;
- Occurrence of the right to withdraw or assign the contractor's participated interest (if established by the PSA or stipulated by the applicable legislation);
- Early relinquishment of the oil and gas rights.

However, contractors do not always manage to perform their minimum work obligation on time due to a wide variety of reasons. The following are implications of the failure to comply with the minimum work programme:

- Contractor's breach and succeeding application of remedies against it;
- Termination of the PSA;
- Relinquishment of oil and gas rights.

Clearly, the contractors' failure to accurately perform their minimum work obligations can lead to unforeseen expenditures by all the parties. However, sometimes PSAs provide for special grounds, on the basis of which, a party in breach can request an extension of the specified period to conduct its minimum obligations. For instance, the term for such extension could be proportionate to the different conditions, such as additional work and another bank guarantee over the unfinished minimum work programme together. There may also be circumstances where delays from the HG contribute to the contractors' failure to perform in a timely manner.

Nevertheless, there are situations when parties, based upon the available information, agree upon abandoning the minimum work programme due to the lack of its prospects. However, the HG is less likely to accept such ´excuse´, as there is an expectation that IOCs should take such risks. IOCs are well aware of the risky issues that attend oil and gas E&P: unfavourable prospects may come with the given contract area, although there are circumstances where the reality is far worse than imagined and parties might consider re-evaluate work programmes. This means that parties should either terminate the PSA or develop a new relevant minimum work programme, which leads to the extension of terms for its performance. Hence, reasonable extensions of the minimum work programme terms create better chances and fair conditions for the contractors to perform objectively complex and expensive contractual obligations, to the extent that is justifiable. Therefore, flexibility by all parties can help avoid disputes and losses.

2.2. Maximisation of Economic Recovery of the Relevant Fields

Economic recovery in the included petroleum fields is set up in a development plan, proposed by the contractors to the State party for approval. The main purpose of such plan is to create conditions in which such economic recovery will be minimized. That is why, parties to a PSA undertake the obligation to maximise the economic recovery.

(a) How can parties maximise the economic recovery?

The United Kingdom Oil and Gas Authority recommends:

1) "*Consider whether collaboration or co-operation with other relevant persons and those providing services relating to relevant functions in the region could reduce costs, increase recovery of economically recoverable petroleum or otherwise affect their compliance with the obligation in question. Maximisation may be reached by parties divesting themselves*

of licenses or assets to other financially and technically competent persons who are able to recover economically recoverable petroleum:

(a) if parties cannot ensure the economic recovery, they should seek to secure investment from other persons in reasonable time;

(b) other economic and non-economic reasons to do so;

2) *Relevant persons must plan, commission and construct infrastructure in a way that meets the optimum configuration for maximizing the value of economically recoverable petroleum that can be recovered from the region in which the infrastructure is to be located;*

3) *The owners and operators of infrastructure must ensure that it is maintained in such a condition and operated in such a manner that it will achieve optimum levels of performance, including production efficiency and cost efficiency, for the expected duration of production, taking into consideration the stage of field and asset development, technology and geological constraints;*

4) *Relevant persons must ensure that technologies, including new and emerging technologies, are deployed to their optimum effect, as set out in a development plan, in maximizing the value of economically recoverable petroleum that can be recovered from relevant waters, including in relation to decommissioning*".[102]

The obligation to maximise the economic recovery of relevant fields is normally required to be secured by the relevant Parties. Where a party is not able to ensure the recovery of the maximum value of economically recoverable petroleum from their granted area, they should seek to secure investment from other parties that can.[103]

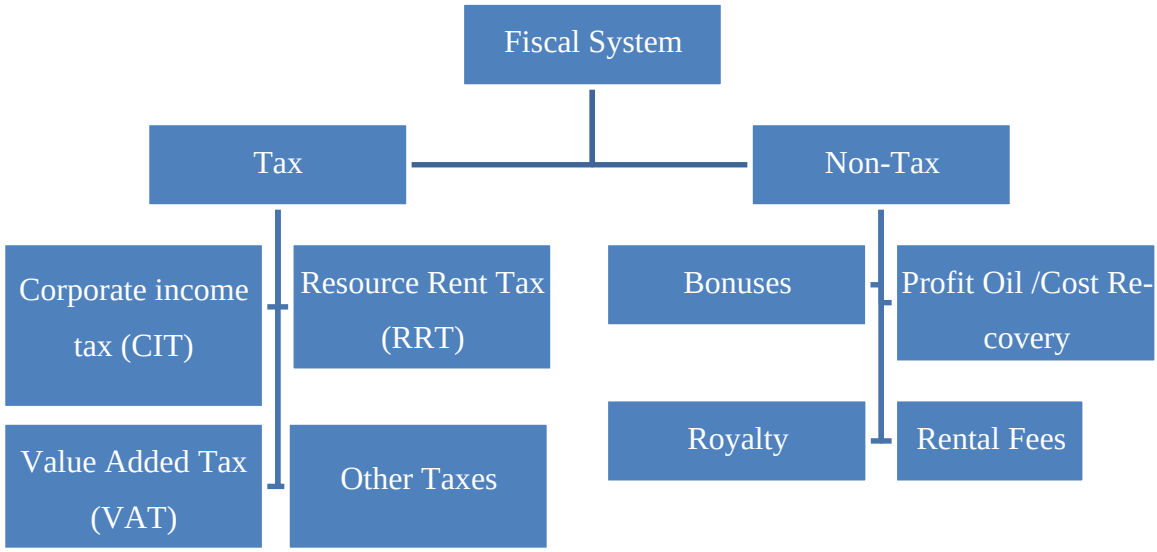
2.3. Fiscal Systems

Applicable petroleum fiscal regimes vary from country to country. Basic fiscal regimes (Licenses/Concessions, PSAs, Service Agreements) have been discussed in the previous chapters. PSAs involve a special set of fiscal instruments that may combine both its exceptional instruments (production sharing) and the ones inherent to other regimes (royalties, taxes, etc.).

Generally, the main aim for the State in combining different instruments is its early access to income/cash. Different jurisdictions have fiscal systems that provide for the necessary payments that are to be paid in any cases of entrepreneurial activities, the most basic and widespread of which are presented in Fig. 1 below.

[102] 'The Maximizing Economic Recovery Strategy for the UK' (*Oil and Gas Authority,* 2016) <https://www.ogauthority.co.uk/media/3229/mer-uk-strategy.pdf> accessed 15 March 2020.

[103] ibid.



(Fig. 1 illustrates the basic structure of petroleum fiscal systems)

Issues in terms of fiscal regulations arise mainly when it comes to the production stage. In particular: first, when cost recovery production is covered; second, during production sharing in cases of progressive scales application; third, when after the production sharing, the amount of product received by the contractors is deducted by the taxes applicable. Furthermore, it is not common that after some period of time the tax legislation may change. Due to the long-term duration and the size of investments involved under PSAs, there are key considerations for the setting up of effective fiscal regimes, some of which are summarized as follows:

- That projects should remain profitable even after the imposition of taxes;
- That both HGs and contractors are obliged to maximise economic recovery and at the same time, have the ambitions to maximise their revenue;
- That the prospectivity of the area, in addition to the specifics of each party ought to influence whether the fiscal regime should be regressive, neutral or progressive (typically, it is progressive);
- That at the time when the HG and the contractors begin making profits, questions may arise as to whether costs are too high or non-recoverable.
- That in the final analysis projects should encourage initial investment and re-investment.

2.4. Health, Safety and Environment

All activities in the oil and gas industry deal with Health, Safety and Environment (HSE) because of their potential adverse effect on these issues. That is why, HSE policies are applied by oil and gas companies in the course of their high-risk activities, including upstream. The aim of HSE is to evaluate and manage the safety culture among the stakeholders of an oil and gas sector.[104] Consequently, HSE provisions need

[104] Atukwase Alex Makambura, 'Health safety and environment, HSE in oil and gas industry' (2018) J Chem Appl Chem Eng 2, 62

to be included into contracts on the conduct of upstream operations in order to effectively identify, manage and prevent potential risks. Health, Safety and Environment are separate issues, each with its own technology, standards and challenges, but they are often combined in the same functional groups and connected issues within the oil and gas companies/business. Health typically deals with the well-being of people as they live and work in their environment. The issues with health are usually focused on the effect of oil and gas field chemicals and oil and gas field's physical environment. Safety focuses on the protection of people from the risks involved in the particular activity during any type of operations thereunder. As for safety management, there is a principle that "*all injuries should be prevented and actively promote amongst all those associated with their activities the high standards of safety consciousness and discipline that this principle demands*".[105] Environment deals with the impacts that the oil and gas sector activities have upon the natural resources and other ecosystems. Its objective is the progressive reductions of emissions, discharges of waste material, and similar materials, that are known to have a negative effect on the environment. Environmental compatibility is verified by the competent State authority and is one of the basic principles on which any oil and gas activity will be conducted.

The IOC's ultimate objective is to make a profit and so it may not view HSE on the same level of priority. Therefore, the HG has a duty to ensure that oil and gas companies adopt best practices for HSE in the course of operations. Although there may be a temptation for companies to cut corners because of the costs of I, this must be strongly discouraged, due to the physical and environmental ramifications.

In order to efficiently identify these risks and prevent them, a basic plan for HSE provisions formation has been created. Creation of HSE provisions includes the following stages:

(1) **Baseline assessment**. A baseline assessment does exactly what the name implies. This assessment determines the environmental, and sometimes socioeconomic conditions, within what will be the project affected area. This assessment data can then be used as the baseline in order to better determine the impacts of the petroleum operations in the environment and social circumstances. Examples of what information is included are: water quality; flora and fauna; the livelihood of surrounding communities.[106]

(2) **Impact assessment and mitigation measures**. This is based on the results of the baseline assessment and aims to predict the possible risks and effects the project might have on the environmental and social conditions in the project area. It includes:

- Description of the project;
- Applicable legislation and international standards;
- Baseline data;
- Impact and risk identification and analysis;

[105] ibid.

[106] Oil Contracts: How to Read and Understand Them' (*OpenOil*, 2013) <https://openoil.net/portfolio/oil-contracts/> accessed 15 March 2020, 182.

- Considered alternatives to the source of the impacts (such as plant design);
- Mitigation measures or management actions to offset or minimise each of the risks and impacts identified.[107]

(3) **Management plan**. The management plan is based on risks and their potential impact, along with the environmental and social management plans. It includes:

- A description of the significance and character of impacts;
- Proposed actions the company will take to prevent or reduce negative impact;
- A description of the expected effects of the proposed actions and how the success of the proposed action will be measured;
- Who in the company is responsible for executing the proposed actions;
- When the proposed actions will take place.[108]

(4) **Monitoring**. Relevant persons (government entities), in accordance with their capacity, monitor the compliance with mentioned plans and programmes. Its objections potentially can delay the processes and monitoring results may be questioned in terms of availability and raise doubts for transparency (affecting corruption risks). The HG should provide clear guidelines on the monitoring/compliance process in terms of relevant timelines, approvals, review and appeal processes, as well as the extent of the discretion of the authorising personnel.

In sum, in cases where something goes wrong, it is important to decide the following:

- Who is responsible for remedying the harm caused?
- Who pays for remedial action ?
- Does the contractor undertake the obligation to restore the damage done and/or compensate those who have suffered?
- The applicability of the Best International Petroleum Industry Practices?
- Is it possible to limit the liability arising from HSE issues?
- What is the scope of liability for harm suffered long after the end of operations?

The risk factor here does not simply relate to a PSA party directly breaching contractual terms, but also to being exposed to the unsafe behaviour of individuals, and to organisational defects, etc. Building a more robust HSE culture should be a top priority in the oil and gas sector, formulating systems that address risk factors comprehensively and that can be seen as making an effective contribution to the reduction of accidents, fatalities, losses (both time and property), and to augmenting occupational

[107] Ibid.

[108] Ibid.

health. Successful implementation of HSE best practice policies take time and commitment from the entire oil and gas enterprise; the effort in doing, however, can significantly improve environmental performance and minimise the environmental destruction that occurs as a result of oil and gas exploration and production, not to mention the enhanced public opinion this may achieve. Thus, sustainable development and the effective implementation of HSE will provide on-going environmental and social benefits, long-term cost savings and contribute to building an attractive contractor's culture.[109]

2.5. Local Content

The notion of "local content" is not defined in a single way. In the petroleum industry, local content is defined as the added value that petroleum activities bring to a host country in addition to direct revenues derived from the sale of hydrocarbons, or from taxes, fees, or other direct compensation paid to the host country for the petroleum activities.[110] Host governments adopt local content policies with the goal to grow the national economy. Hence, by including local content provisions into a PSA, the HG goes beyond the fiscal instruments in terms of its benefits. In order to maximise their benefits by satisfying local content demands of the HG, contractors must carefully handle these provisions. Nevertheless, it is important to understand the trade-offs and pitfalls that the development of local content policies (LCPs) may entail. LCPs are a part of bigger socio-economic policies and thus must be implemented with respect thereto. Higher LCP standards may lead to these in other, broader, sectors of regulation, which is not always possible to fulfil in terms of current state capabilities (e.g., quality of education, changes in labour mobility, improvements in infrastructure, etc.[111]). At the same time, LCPs' provisions should not contradict existing socio-economic terms, aimed at foreign investments attraction, the stability of the socio-economic sector and its sustainable development. The State should not expect to fulfil all of its socioeconomic goals through LCPs but it is a relevant issue to consider as part of their resource management. Nevertheless, how compliance with LCPs and other local content terms affects the circumstances of the stakeholders is another debatable issue. For example, too high and unrealistic LCPs may cause investors to turn away, particularly where the State lacks the relevant people and supply capabilities. At the same time no local content provisions might affect the economic development of many oil and gas regions. These factors may prevent the State from achieving sustainable development through LCPs.

There is an interesting overview of Local Content Regulatory Frameworks in five selected ECCAS[112] countries from the perspectives of employment, skills development and national industry participation.[113] The recommendations based on these analyses were:

1) "Strengthening legislation to increase local employment and skill development;

2) Promoting sustainable domestic production linkages through policy interventions;

[109] Makambura (n 104) 2, 62

[110] For a further discussion see, Eduardo G. Pereira and Tonje Gormley, *Local Content for the International Petroleum Industry* (PennWell 2018); Pereowei Subai, *Local Content Oil and Gas Law in Africa: Lessons from Nigeria and Beyond* (Routledge 2019).

[111] 'Local Content in Oil, Gas, and Mining' (*The World Bank*, 27 January 2016) <https://www.worldbank.org/en/topic/extractiveindustries/brief/local-content-in-oil-gas-and-mining> accessed 15 March 2020.

[112] Economic Community of Central African States.

[113] Babafemi Oyewole, *Overview of Local Content Regulatory Frameworks in Selected ECCAS Countries* (2018) UNCTAD.

3) Establishment of Enterprise Development and Vocational Training Centres;

4) Partnership among stakeholders for local content development;

5) Access to finance by local small and medium scale enterprises;

6) Regional markets and strengthen regional cooperation;

7) Learning from the experience of successful countries in Africa and beyond".[114]

Hence, both LCPs and local content provisions in PSAs together should create effective mechanisms for the on-going development of the national economy, balanced by the contractors' interests. Nevertheless, there exist certain issues and questions that may arise in terms of PSA:

- Whether the country possesses a developed infrastructure (whether it needs complete creation thereof or advance development of the existing?);
- Whether the country in setting up local content provisions aims at long-term goals (e.g., training and transfer of technology) or short-term goals (e.g., employment and tangible infrastructure);
- Whether the term "local" means nation or is more narrowly targeted;
- Whether local content provisions correlate with the local capability:
  - ✓ Balancing local content imperatives with the ability to perform;
  - ✓ Local petroleum companies (if any) may be ill-prepared to participate;
  - ✓ Forcing local company participation may introduce inefficiency and higher cost, discourage investment, and reduce otherwise-achievable revenue;
  - ✓ Forcing participation might also encourage increased levels of corruption.

These issues should normally be taken into account at the time when local content provisions are being negotiated, along with the capability of the State party to realise them, their coherence with the existing broader regulations, including other local content policies. Arguably, local content provisions should provide higher incentives for excess capacity rather than focusing on penalising lower performance. Ideally, domestic companies should still be incentivised to reach a point where they are able to compete in the domestic and international market without any special rules like local content. This is because most companies are likely to willingly purchase locally where the quality is on par with that in the international market. It is a question of quality and cost. A relevant concern for local content policies is that they might not encourage domestic companies to be competitive and could increase the relevant costs for doing business in the country. That said, it is clear that local content provisions have a place in attempting to redress imbalances and asymmetries that are inherent in the oil and gas sectors. As with other areas of the sectors that require adjustment, striking the right balance between pure social and economic outcomes is perhaps key to the overall picture.

[114] ibid.

2.6. Anti-Corruption, Transparency and Accountability

Corruption in extractive industries has been well documented and has historically been widespread in the oil, gas, and mining sectors. The most common types are bribery and grand corruption, according to the Bribe Payers Index.[115] Some of the most corrupt countries, according to the Corruption Perceptions Index, have extractive industries that dominate the economy. Corruption often occurs when both motivation and opportunity are present. This is most notably the case when officials and bureaucrats have vast discretionary powers over natural resources or have little oversight of their decision making. According to the Anti-Corruption Resource Centre, the perfect scenario for corruption is when:

1) *"A few individuals hold all the power to make certain decisions,*
2) *Public information about decision-making is scant,*
3) *Large discretion in making decisions by an individual instead of objective criteria,*
4) *Procedures to hold decision-makers accountable do not exist, and*
5) *Decisions can yield personal (private) rewards for decision-makers".*[116]

of these precious resources. The table below provides some of the best practices for mitigating against corruption.

Anti-Corruption, Transparency and Accountability Best Practices	
Pre-Award	**Exploration & Production**
✓ Clear criteria for allocation of oil and gas rights should be set; ✓ Choosing the appropriate method of oil and gas rights allocation in relation to corruption risks (direct negotiations vs bidding); ✓ Decrease discretionary powers in making choice of the investors ✓ Make it clear who decision makers are. ✓ Publicly explain the choice between different allocation methods and how they apply in different situations	✓ Transparency and availability of the work programme compliance data; ✓ Access to fiscal data (terms and compliance); ✓ Availability and transparency of HSE monitoring results; ✓ Availability of decommissioning provisions, costs and results; ✓ Decreased Discretionary powers of HG in course of acquiring governmental approvals ✓ Track and disclose contract compliance.

[115] Deborah Hardoon and Finn Heinrich, 'Bribes Payers Index 2011' (2011) Transparency International.

[116] Anti Corruption Resource Centre, 'Basic guide to corruption and anti-corruption in oil, gas, and mining sectors.' < https://www.u4.no/topics/oil-gas-and-mining/basics> accessed 15 March 2020.

There is no doubt that societies need petroleum and natural gas energy sources to function for the, present and foreseeable future. They affect both the economy and national security. Based on the importance of this industry to the economy, it is pertinent that corruption is eliminated to prevent the waste

EY[117] developed eight stages to an effective anti-corruption compliance programme in the sphere of oil and gas exploration and production:[118]

1) Conduct a risk assessment program. It should identify what policies and controls the company has in place to mitigate its corruption risk and analyse their effectiveness;
2) Develop a corporate anti-corruption policy stating company's position that both governmental and commercial bribery on any scale will not be tolerated;
3) Implement anti-corruption policies and controls;
4) Implement anti-corruption financial controls;
5) Conduct anti-corruption compliance training;
6) Monitor the program;
7) Anti-corruption procedures in M&A; and
8) Reassess risk and modify program.

Further, it is also possible to include anti-corruption provisions into the text of a PSA. However, as stated earlier, it is not typical to include such provisions, as PSAs are likely to include the countries' anti-corruption statutes through mandatory rules subject to the host country's laws on contractual references.

2.7. Use of Infrastructure

The level of infrastructure present is one of the key indicators reflecting the state of economic development of the host country. While negotiating the infrastructure provisions to be included in the PSA, parties will consider a number of factors that partly predetermine the content of these provisions. The starting point is whether or not the infrastructure already exists. Based on this factor, parties may need to consider the following issues:

- If the infrastructure does exist:
  - ✓ What is the monetary compensation for use?
  - ✓ Are there limitations and/or restrictions on the use of such infrastructure in the course of carrying out petroleum operations?
  - ✓ What is the scope of liability for damage?

[117] EY website <https://www.ey.com/en_uk/who-we-are> accessed 23 August 2020.

[118] 'Managing bribery and corruption risks in the oil and gas industry' (EY, 2014) < EY-Managing-bribery-and-corruption-risk-in-the-oil-and-gas-industry.pdf> accessed 23 August 2020.

- If the infrastructure does not exist and contractors are bound to create it as a part of their obligations under a PSA:
    - ✓ What are the provisions for construction (what infrastructure is required, when is it needed, who conducts the construction of the same)?
    - ✓ Who acquires ownership of the newly built facilities;
    - ✓ What if any are the third-party use terms and limitations for that use?
    - ✓ How will decommissioning obligations apply if the State acquires ownership?

A phenomenon that is fairly common within the extractive resources industry is the exchange of natural resources for infrastructure. This means that the host country may give incentives to companies to build infrastructure in the form of roads, railways, telecommunications or airports, in return for a reduction in traditional taxes such as royalties, withholding taxes, corporate taxes owed by that company.[119] Where such an arrangements are an option, it may be beneficial for host countries to create these opportunities that also stipulate that significant infrastructure projects be developed in a timely manner, sometimes even before the petroleum production phase. However, the question is, at what "cost" is this exchange occurring? It might be a positive or negative deal for the relevant parties as it depends on the terms and conditions of such arrangement. In addition, it is relevant to understand if the infrastructure negotiated is aimed at the creation of basic means of transportation of petroleum production, to connect the markets, to receive the income and move the production abroad, or if it is social infrastructure, for example schools, etc. as part of a company's corporate and social responsibility. Regardless, it is relevant for the exchange to favour both parties, such that the cost of providing infrastructure is not significantly lower than the fiscal concession made by the HG. In any case, the full details about such infrastructure are most likely to be dealt with in separate agreements and regulations.

2.8. Decommissioning

Decommissioning provisions (also known as abandonment) had a tendency to be ignored in the older contracts addressing upstream activities. Even today, parties may not have the decommissioning stage at the forefront of their minds when entering into the contract, since this phase of operations typically occurs long after the commencement of the contract. Despite this, it is important that parties pay close attention to decommissioning and include relevant provisions. The decommissioning stage may not begin for twenty to forty years after entering into the contract – at the end of its lifetime – when it is no more profitable to continue producing oil and gas from that field. Decommissioning generally, requires designated (responsible) parties (it may be all of them, some contractors or one contractor), to perform the following actions:

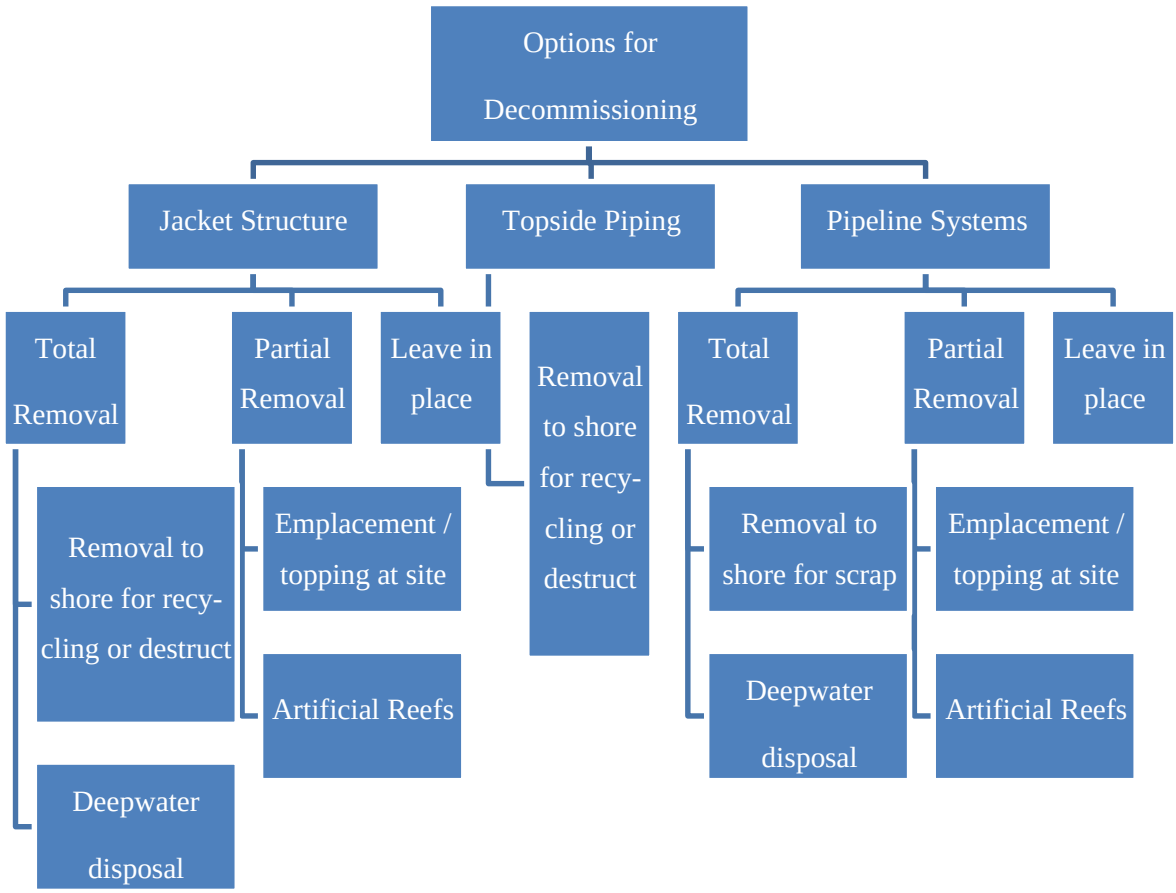
- To remove the facilities and infrastructure that the company built or used for the purposes of producing and transporting the oil or gas;

[119] Oil Contracts: How to Read and Understand Them' (*OpenOil*, 2013) <https://openoil.net/portfolio/oil-contracts/> accessed 15 March 2020, 182.

- Return the natural environment to the state it was in before petroleum operations commenced, as far as is possible.

Decommissioning procedures need to set out meticulously, including the precise details regarding the following: (1) the objects subject to decommissioning and the period of time in which the process must be completed; the methods of decommissioning to be applied in the particular circumstances; and, the breakdown costs of decommissioning, as well as details of the funding arrangement for the same. There are many factors that go to determining the best option for decommissioning. That said, the option that minimises the risks of adverse effects (on the environment, or financial circumstances, etc.) should be favoured. The classification of methods is based on the following criteria: 1) object for decommissioning and 2) total, partial removal, or leaving the asset in place; the methods are illustrated in the following chart:

(Fig. 2 illustrating options for decommissioning oil and gas objects)



Different criteria not only determine the best method applicable, but together with the latter, it allows parties to calculate the approximate costs. Decommissioning provisions have become a subject of special attention since it can be a very costly exercise for the companies involved and can also be challenging for the government, in terms of enacting effective regulations to enforce remediation and restoration of the environment. One of the main concerns for decommissioning is the recovery of decommissioning costs. Since the procedure of decommissioning is by nature costly, it often requires direct government financial intervention and the government's best efforts to create sufficient incentives for the conduc-

tors of this phase to continually improve and optimize decommissioning performance. One such incentive could be tax relief. For example, the UK provides tax relief for decommissioning that includes guarantees under the decommissioning relief deed. Under this regime, a licensee can claim a certain amount in tax deduction for the associated costs of decommissioning.[120] The effect of the decommissioning relief deed was to guarantee to individual companies that, if the law changed after 2013 resulting in a company receiving a lower amount of tax relief, the government (HM Treasury) would pay the difference to the company.[121] These issues are important to bear in mind as through the provision of tax reliefs or cost recovery, the State might end up paying part of the decommissioning costs as well.

In addition to national legislation that govern certain aspects of decommissioning, international regulations also exist. For example, various international conventions require coastal States to exercise their sovereign rights on the removal of disused and abandoned installations and facilities within their continental shelf and exclusive economic zone. The most recent of these international conventions is the 1982 United Nations Convention of the Law of the Sea (UNCLOS III), which came into force in 1995, and prescribed the application of generally accepted international standards on the removal and abandonment of offshore platforms impeding coastal navigation.[122] The main issues of compliance regarding decommissioning provisions typically involve costs. Currently, among oil and gas companies, there is a tendency to transfer their decommissioning obligations. Smaller companies become assignees of the participating interest under the PSA and would also bear obligations and liabilities arising from decommissioning. The rules pertaining to decommissioning liabilities between assignees and assignors differ between States. For instance, in Nigeria, the assignee's liability for decommissioning only applies to obligations that accrue from the transfer and not obligations preceding it. Nevertheless, some HGs can hold previous assignors liable for decommissioning costs.

Another issue to bear in mind in terms of the applicability of decommissioning provisions is that costs may change significantly due to different, both economic and non-economic, reasons. Despite the fact that parties usually seek to incorporate a provision for special decommissioning funding, it may not be enough.[123] Furthermore, material changes to circumstances, including decommissioning technologies and their costs, in addition to political, environmental, safety and public expectations, often occur and drastically affect the estimated costs of decommissioning.[124]

The significant potential liabilities arising from decommissioning is another reason to applying particular care when drafting these provisions. It is important to ascertain precisely which party is liable for

[120] In the UK, it is estimated that the Treasury is liable for around 50-75% of the costs of DCG, through tax relief. Callum Falconer and Chris Wicks, 'Decommissioning and the offshore oil and gas life cycle' in Marc Hammerson and Nicholas Antonas (eds), *Oil and Gas Decommissioning: Law, Policy and Comparative Practice* (2nd edn, Globe Law and Business 2016) 16.

[121] Edward Milliner and William Watson, 'Decommissioning Relief Deeds' (Slaughter and May: Briefing Notes, September 2013) <https://www.slaughterandmay.com/media/2003911/decommissioning-relief-deeds.pdf> accessed 09 September 2020. This will be applied to a hypothetical scenario. Under the Finance Act 2013, company A would have received £500,000 (the reference amount) as tax relief, but a subsequent change in law results in an amount of £420,000 in 2025 when DCG takes place. Company A is entitled to claim the difference of £80,000 from the government.

[122] Adebowale Adeniyi, 'Nigeria: Key Considerations on Decommissioning & Abandonment Costs in Nigeria' (*Mondaq*, 31 July 2019) <http://www.mondaq.com/Nigeria/x/831370/Oil+Gas+Electricity/Key+Considerations+On+Decommissioning+Abandonment+Costs+In+Nigeria> accessed 15 March 2020.

[123] Hafez Abdo & Musa Mangena, 'Accounting Disclosures of Provisions for Decommissioning Oil and Gas Installations the Case of Oil and Gas Companies Listed in the UK' (2019) Global Science and Technology Forum <http://irep.ntu.ac.uk/id/eprint/34214> accessed 15 March 2020.

[124] ibid.

what aspects of the decommissioning process, in compliance with the PSA . Issues of liability include residual liability following transfer or surrender of a lease/licence, and historical liability. The persons who own an installation or pipeline at the time of its decommissioning might remain the owners of any residues. Where the position is for residual liability to remain with the owners in perpetuity, it is critical for the PSA to be clear on who qualifies as the 'owner'. Parties can also negotiate the option to recycle the decommissioned objects. A positive environmental impact is achieved in such cases; however, the costs for that are normally higher. Rigs-to-Reefs is the practice of converting decommissioned offshore oil and petroleum rigs into artificial reefs. This topic is heavily debated as to whether this should be promoted or prohibited. Advantages may include the creation of an artificial reef and reduce costs. Disadvantages may include navigational mishaps and diving accidents around the rig and accusations that rigs-to-reefs is an excuse for ocean dumping. However, much depends upon national and international regulation, as well as who remains liable if damage is caused by these rigs. Taking into consideration all these issues, one can conclude that the existence of decommissioning standards and regulations are underdeveloped as many countries are yet to face these issues (especially in offshore operations). Decommissioning provisions should be negotiated accurately and well ahead of such activities.

2.9. Assignment

As noted in the previous chapter, assignment (transfer of participating interest in PSA, in whole or in part, to an affiliate or non-affiliate) is normally permitted under a PSA. It can be a direct assignment (i.e., in the PSA) or indirect assignment (i.e., in the shareholders of the relevant companies). There are a number of issues arising from assignment: governmental approval, preferential rights and obligations and liabilities of the assignor after the assignment. The discussion below explores these issues.

(a) Governmental approval

Where the assignment of a participating interest in the PSA is allowed, typically, the assignor is required to obtain prior governmental authorisation to do so. Further, it is standard to incorporate the terms and conditions of acquisition of such authorisation. However, certain doubts still arise in the course of applying these provisions and particular concerns over transparency and corruption prevention. Similar to any issuance of governmental approval, there is a risk of overly wide discretionary powers attributable to a relevant governmental authority. To address such corruption risks, negotiating parties can include a provision for the implementation of formal strict procedures and criteria that are to be followed and met by an assignor prior to any governmental approval. Such transparency mechanisms mitigate the risks against corruption and unfettered discretion of government bodies. Such provisions would also establish requirements under which the assignor would be allowed to transfer its participating interest. Special cases occur, however, when an assignee is not an affiliate. This means that the assignee becomes a new co-oil and gas rights holder (if possible, under the PSA). This broadens the authority of the relevant governmental body to inspect the assignee and, thus, gives a broader spectrum of grounds for reasonable or unreasonable withholding of approval. Hence, PSA provisions for governmental approval for assignment establish detailed procedures for the issuance of approvals, in order to reduce corruption-risks and to make the process timely and efficient. Whether an assignor is permitted

to challenge an alleged unreasonable withholding of governmental consent, even though it may be "excluded" from PSAs, will depend on the laws of the jurisdiction.

(b) Preferential rights

Preferential rights, which generally fall into two categories – pre-emption right and right of first refusal – are another concern in terms of assignment. PSAs usually provide for such rights if they are applicable or implied by law. The content of preferential rights should be clearly determined and defined under the PSA, so as to avoid or at least reduce disputes. Nevertheless, it is relevant to underscore that such rights are more commonly dealt with at the joint venture level between the co-venturers (if applicable).

(c) Assignor's obligations and liabilities after the assignment

Under the assignment provision, the assignee fully and unconditionally undertakes to assume all the rights and obligations of the assignee contractor under the PSA in an amount agreed. Transfer may be taken to mean that the assignor becomes 'free' from transferred rights and obligations under the PSA (asides decommissioning liabilities in some cases). However, it is not always so. PSAs can set the obligations and liabilities arising therefrom, from which the assigning party would not be released after the assignment (especially for an affiliated company). Such obligations and liabilities may arise both before and after the assignment. It is important to take cognisance of this possibility .

(d) Other Considerations

The State party can stipulate a number of requirements to which the assignee shall be subject to. The rationale for such requirements is that the host country seeks to avoid disruption to operations and ensure that the assignee is of the same financial standing and/or technical ability as the assigning contractor party. So, guarantees might have to be put in place before an assignment is approved. Furthermore, the host country may establish the assignment bonus payment payable by the assignee as the new party to an existing PSA. Also, host countries, as a party interested in receiving income from any operation and transaction, may provide for the assignor's payment of any related taxes, charges or fees, or vice versa, exclusion of such payment. All these conditions should be considered in due diligence in order to avoid putting parties' interests into jeopardy. If the established conditions to proceed with assignment are satisfied, procedures, such as governmental approval and prior written notice are served, then there may arise some aspects which are likely to be stipulated by the PSA. For instance, the assignee may have to obtain access to confidential information. Respectively, if the assignor transfers its participating interest in whole, it would trigger a 'Return of the confidential information' clause. Hence, it is essential to clearly state all the terms and conditions concerning prospective assignment of rights under the PSA.

2.10. Export and Sales of Production

The applicability of export and sales of production provisions deal mainly with the contractors under PSA. The contractors' interests include being able to freely export and sell their shares of production in order to monetise it for revenue generation. In order to maximise this opportunity, it is recommended that parties examine the following challenges:

1) **Sanctions/Restrictions**. Export sanctions/restrictions and the possibility of their imposition should be taken into account while negotiating because it significantly decreases contractors' opportunities to sell production. Provisions pertaining to sanctions/restrictions should be express and clear.

2) **Export taxes and duties imposed by the HG**. Due to high export fees, sales of production abroad can become extremely burdensome for the contractors.

3) **Domestic marketing obligation compliance**. This obligation, in turn, creates extra challenges, which have been examined in the previous chapter (e.g., restrictions, payments in "soft" currency, domestic prices lower than average market prices, etc.).

4) **Double taxation**. It is necessary to consider whether the international treaties on the avoidance of double taxation exist between the host country and contractors' home countries.

5) **Sufficient infrastructure**. Clearly, to transport the hydrocarbons produced, sufficient infrastructure is needed. It can exist already or be subject to construction under the PSA.

In order for contractors to achieve their goal to freely export, they need to include provisions, that assist this end; for example, foreign exchange control provisions. A typical example of such a provision is as follows:

"Contractor shall for the purpose of this Agreement be entitled to receive, remit, keep and utilise freely abroad all the foreign currency obtained from the sales of the Petroleum assigned to it by this Agreement".[125] And provisions that relate specifically to exports, are typically set out in the following way:- "*There shall be no license, other than a Production License, required for the export of Petroleum to which Contractor is entitled hereunder, and Contractor shall be exempt from any duty, fee or other impost on the export of such Petroleum*".[126]

[125] Petroleum Agreement Among Government of the Republic of Ghana Ghana National Petroleum Coorporation and Tullow Ghana Limited, Sabre Oil and Gas Limited, Kosmos Energy Ghana HC, in Respect of the Deepwater Tano Contract Area, Dated 10 March 2006, art 13.1 <https://www.resourcecontracts.org/contract/ocds-591adf-8934817155/view#/> accessed 03 September 2020.

[126] See for example, Article 12.4 of Canmex Holdings (Bermuda) II Ltd., Range Resources Limited, Nogal Valley, PSA, 2007 <https://www.resourcecontracts.org/contract/ocds-591adf-1800799116> accessed 03 September 2020.

Key Chapter Points

In sum, among the general provisions in the PSA, there are a number of provisions that require more thorough and thoughtful negotiation since they can be significantly more difficult to comply with, as compared to other provisions. Furthermore, another challenge in the application of these provisions is that they are likely to be the source of dispute in the future. Some of these provisions are typical for PSAs due to the specificity of its legal regime (e.g., cost recovery, allocation of production) and some of these are important for the whole oil and gas industry and the regulatory areas that somehow are affected by it (e.g., minimum work programme, decommissioning, etc.). Lastly, anti-corruption and transparency risks surround nearly any activity that requires governmental participation. Compliance with all these provisions is essential. Insufficient negotiation, as well as breach of PSA provisions, may lead to various consequences, from delay in production and, as a result, financial losses, to termination of the PSA and relinquishment of the oil and gas rights. All of which would lead to a very negative outcome and should be prevented.

CHAPTER 4: Other Upstream Agreements[127]

Often, two or more companies desire to jointly conduct oil and gas activities in the same area in order to mitigate risks and share costs. The different interests of each company need to be balanced. For this purpose, creating a consortium is a practical solution. A consortium is an association of several companies aimed at achieving commonly held goals in their business activities. Since the oil and gas industry is multifaceted and needs to regulate their relations in different ways, there are several types of consortium agreements.

In this chapter we shall consider the key features of each of the following types of agreements: Non-Disclosure Agreement (NDA), Joint Study and Bid Agreement (JSBA), Area of Mutual Interest Agreement (AMI), Joint Operating Agreement (JOA), Unitization and Unit Operating Agreement (UUOA), among others. Further, over the years, standard forms of all of these agreements have been offered by different industry associations like the Association of International Petroleum Negotiators (AIPN), American Association of Professional Landmen (AAPL), Canadian Association of Professional Landmen (CAPL), Oil & Gas UK (OGUK) and Australian Mining and Petroleum Law Association (AMPLA). Finally, to round off the discussion of common contracts found in the upstream oil and gas business, we will discuss some common service agreement forms and financing agreements.

1. Non-Disclosure Agreements (NDA)

Confidentiality is a crucial aspect of protecting and furthering the development of business. Parties generally try to ensure that any commercially important information will not be disclosed to persons outside the consortium. Therefore, at the earliest possible opportunity when discussing business opportunities that are of mutual interest, the parties should sign a Non-Disclosure (or Confidentiality) Agreement, prior to exchanging sensitive and important information.

1.1. Mutual and Non-Mutual NDAs

There are two main types of NDAs: a mutual/reciprocal agreement and one-sided non-mutual agreement. Where there is only one party that shares confidential information, it is a one-sided agreement. If both parties are willing to exchange sensitive information, they would use the mutual/reciprocal agreement.[128]

[127] For further information see: Eduardo G. Pereira (ed.), *The Encyclopedia of Upstream Oil and Gas Law* (2nd edn Globe Law and Business 2019), Jennings (n 34), Anthony Jennings (ed), *Oil and Gas Production Contracts* (Sweet & Maxwell, London 2008), Thorpe (n 1), Chris Wilkinson (ed.), *Joint Ventures & Shareholder´s Agreements* (3rd edn Bloomsbury Professional, West Sussex 2009), David (n 1), Duval (n 1), Gao (n 30).

[128] Richard Harroch, 'The Key Elements of Non-Disclosure Agreements' <https://www.forbes.com/sites/allbusiness/2016/03/10/the-key-elements-of-non-disclosure-agreements/#5fdf5d54627d> accessed 15 March 2020.

1.2. Key terms of NDA

The NDA is essentially comprised of the following terms:

- Parties to the NDA
- Definition of Confidential Information
- Receiving Party Obligations
- Information that is not Confidential
- Return of Confidential Information
- Other relevant provisions

1.3. Parties to the NDA

Usually, the parties to the agreement are presented by the disclosing party and the receiving party. If the NDA is mutual/reciprocal, both parties appear to be disclosing and receiving at the same time. If the information is planned to be shared with affiliated companies, partners, accountants and any other third parties, the NDA should also set out rights and obligations of those third parties in respect of such information.

1.4. Definition of the Confidential Information

The NDA must expressly define what "confidential" (in other words, "sensitive") information means. From the disclosing party's point of view, this definition must be broad enough to adequately protect the sensitive data. Meanwhile, the receiving party will also identify the information that it requires be kept confidential.

The most challenging is oral information because often it is hard to prove that the information discussed orally was deemed to be confidential. The most appropriate solution here is to agree that the oral information can be deemed confidential with prior written notification made by the disclosing party stating what parts of such oral information are deemed confidential.

1.5. Scope of the Receiving Party Obligation

The main goal of such agreement is to keep information confidential. This is why the receiving party must take all reasonable measures to prevent leakage of the information to any third party. Another step is to prohibit the unauthorised use of the information. In this case, the disclosing party may claim damages resulting from this breach, according to the terms of the NDA.

1.6. Information not covered by the confidentiality obligation scope

Every NDA provides the exclusions from the confidentiality treatment. It is aimed at preventing the situations when the disclosing party could unfairly allege that there has been a breach of the NDA. Common exclusions tend to be:

- information that is already known to the Receiving Party as of the Effective Date;

- information that is or becomes available to the public other than through the act or omission of the Receiving Party or of any other person to whom Confidential Information is disclosed;
- information that is acquired independently from a third party representing that it has the right to disseminate such information at the time it is acquired by the Receiving Party; or
- information that is developed by the Receiving Party independently of the Confidential Information received from the Disclosing Party.

1.7. Return of Confidential Information

This is another important provision to be included in the NDA on the basis that the Disclosing Party ought to avoid a situation where sensitive information remains with the Receiving Party for an uncertain period of time. The main point here is that the Receiving Party does not obtain any proprietorship of the confidential information. Prior to the expiry, the Disclosing Party may at any time require the return of the confidential information.

1.8. Other relevant NDA provisions

Richard Harroch highlights additional provisions that are also important for NDAs, primarily from the receiving party's point of view, which serve as preventive measures in respect unpleasant events that may happen to a receiving party:

- "Employee Solicitation. If the receiving party has significant access to the disclosing party's employees, the latter-mentioned may want to include a clause that prevents the receiving party from soliciting or hiring its employees for a certain period (e.g., 12-24 months).
- Governing Law. This is often a standard 'boilerplate' provision in the agreement. Boilerplate clause means the clause that is typical for all of the contracts of the particular kind. It establishes the jurisdiction under which any dispute between the parties will be resolved.
- Injunction. This clause is important for the disclosing party to ensure that it has the right to injunctive relief to stop the recipient side from breaching the agreement.
- No rights in the receiving party. To avoid any doubts and opacities, it is recommended to establish that the receiving party does not receive any rights to disclosing party's ideas".[129]

2. Joint Study and Bid Agreement (JSBA)

The Joint Study and Bidding Agreement is the agreement which is intended to govern the relationship between oil and gas companies that are willing to jointly submit an application for an award licence.[130] Joint study and joint bid are essentially two processes. The former is an agreement to study an area of

[129] ibid.

[130] Craig Purdie, Hunton Andrews Kurth LLP, 'The Joint Study and Bidding Agreement' (2014) <http://mondaq.com/united-states/x/291040/Oil+Gas+Electricity/The+Join+Study+and+Bidding+Agreement> accessed 29 July 2020.

land by gathering and evaluating data relating to the oil and gas potential of the study area.[131] The parties to the agreement would also share the rights and liabilities arising from such study.[132] In turn, a joint bid agreement is one whereby IOCs commit to bid jointly for selected acreage in a licensing round.[133] Where the bid is successful, leading to a licence or contract being awarded, the parties will go on to form a joint operating agreement, with defined participating interests. When signing the JSBA, a consortium is primarily aimed at obtaining rights to explore, develop or produce oil and gas within a specific area (for the purposes of the JSBA it is called "Study Area"). Some of the benefits of a joint bid is that the consortium has a better chance of winning the bid through their combined expertise and financial standing. The JSBA also operates as a mechanism through which each member of the consortium reduces costs.

2.1. Key terms of JSBAs

Below are some key terms of JSBAs that members of the consortium have to give consideration to:

- Liability of the Parties;
- Application;
- Exclusivity;
- Default; and
- Withdrawal.

These terms are described below.

2.2. Liability of the Parties

Generally, each member of the consortium is liable for its acts or omissions in respect of its participating interest/share. However, particular rules may apply where there is gross negligence on the part of the operator.

2.3. Application

It is essential to describe what steps the Parties must follow to be granted the licence. Application clause includes matters of application procedures, negotiation of a contract with the Government and costs incurred by such procedures. The following are some standard provisions for each part of the clause.[134]:

- **Application procedures**: Parties have the responsibility to provide the Operator with Commercial Terms since it is the Operator who will be the lead negotiator with the Government. The

[131] Peter Roberts, *Joint Operating Agreements: A Practical Guide* (3rd end, Globe Business Publishing 2015) 293-295; 'Indonesia: Cott Oil and Gas establishes joint study group in South East Papua' (*Energy-pedia news*, March 2013) <http://www.energy-pedia.com/news/indonesia/new-153819> accessed 23 August 2020.

[132] ibid.

[133] Scott Crichton Styles, 'Joint Operating Agreements' in in Gordon G, Paterson J and Usenmez E (eds), *UK Oil and Gas Law: Current Practice and Emerging Trends Volume II: Commercial and Contract Law Issues* (3rd end, Edinburgh University Press 2018) 18.

[134] Ibid.

Parties seek unanimity while considering Commercial Terms, and if there is no unanimity, then they include the most competitive terms in the Application.

- **Negotiations with the Government**: it normally includes provisions that Parties must conduct a revision of the Commercial Terms upon the Government's request. This revision also has to be unanimous, otherwise the objecting Party will be automatically withdrawn from the Application. Where the application is successful, the Operator becomes the main negotiator. It is necessary to highlight that this part of the clause confirms the figure of the Operator in its relations with the rest of the consortium and establishes the date when the Parties have to sign a JOA after the date when the licence comes into force.

- **Spreading application and negotiation costs**: as a general rule Parties bear application costs proportionally to their Participating Interest and cover their own negotiation costs. However, in relation to certain Operator's costs on behalf of the consortium, there are two options: either pay in proportion to its Participating Share, or pay the amount proposed by the Operator to the extent it is agreed by all Participating Parties, as part of the budget.

2.4. Exclusivity

Under the JSBA the Parties are not allowed to apply for a licence over the Area outside the consortium. The Exclusivity clause is of particular importance to the JSBA; it continues to be binding upon the consortium even if the Agreement ceases to exist or any Party withdraws or assigns its Participating Interest for a certain period of time.[135]

2.5. Default

Where a Party fails to meet its financial obligations on the due date, this would constitute a default. Notably, this does not prevent the rest of the consortium operating, especially during the bidding rounds. In the event that the Party defaulted during the bidding round, it will remain a party to the JSBA until the end of that round and its exercise of all its obligations under the JSBA.[136] Craig Purdie notes that, "*it is therefore sensible to draft the default provisions so that only after the licensing process will the defaulting party then forfeit its interest to the other consortium members*".[137] A Defaulting Party may remedy the default within the agreed period (e.g., 30 days) by discharging an obligation to pay. In the event of failing to remedy the default, such Party may be considered to be withdrawn.[138] In any case, all of these remedies should be consistent with the applicable law.

2.6. Withdrawal

As a general rule, the Party withdraws from the JSBA if it does not reach an agreement with the rest of the consortium and thus refuses to participate in the application. The JSBA would normally provide for

[135] AIPN Study and Bid Group Agreement Model Form 2006, <https://www.aipn.org/forms/store/ProductFormPublic/study-and-bid-group-agreement-2006> accessed 18 September 2020.

[136] Craig Purdie, Hunton Andrews Kurth LLP (n 130).

[137] ibid.

[138] ibid.

situations where, even if a proposal was made, dissenting parties would be able to choose not to participate.[139] Although the party withdraws from the agreement, it would still be liable for all costs and liabilities accrued in proportion to its Participating Interest share, up to the relevant withdrawal date.[140]

Any party is permitted to exercise the right to withdraw prior to the Application being submitted to the Government. However, there is an exception when the Government changes its bidding procedure or the Application has not been accepted within a particular number of days. If the party plans to withdraw from the Agreement before the application date is due, then such a party ought to be bound by the restrictions under the JSBA if it wishes to retain the possibility of making other applications during the bidding rounds and to avoid the leaking of any sensitive information.

3. Joint Operating Agreement (JOA)[141]

Joint ventures regulated by JOAs are popular between oil and gas companies, since they provide a way to spread the risks and costs of exploration and production (E&P) activities. Typically, they are designed as unincorporated joint ventures (also known as the contractual joint venture). The unincorporated joint venture is regulated by contract and each party owns an agreed percentage of oil and gas production. The main objectives for the JOA:

- Allocate and spread risks and costs;
- Pool resources (capital, skill, technology);
- Avoid or mitigate joint and several liability (although this is not possible in many cases, depending on the agreement with the HG and the specifics of the petroleum legislation);
- Manage joint operations

In summary, the JOA is set to govern the horizontal relationship of the consortium parties and their proportional liability agreed in the relevant JOA.[142] However, such consortium should, at the same time, be bound by the HGI with the relevant host government, which owns the oil and gas resources. Therefore, it is imperative that the provisions in the HGI and the JOA are aligned.

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[139] ibid.

[140] ibid.

[141] For further information: Eduardo G. Pereira, *Joint Operating Agreements: Risk Control for the Non-Operator* (2nd edn Globe Law and Business 2018 , Eduardo G. Pereira, *Joint Operating Agreements: Mitigating Operational and Contractual Risks in Exclusive Operations* (Globe Law and Business 2013), Eduardo G. Pereira, Anna Ovcharova, *Joint Operating Agreements: A Comparison Between IOC and NOC Perspectives* (Globe Law and Business 2015) (with Anna Ovcharova), Eduardo G. Pereira, *Accounting procedures in Joint Operating Agreements: An International Perspective* (Globe Law and Business 2016) (with Carlos Eduardo Vieira da Silva, Eduardo Seixas),), Reg Fowler, Peter Roberts, Eduardo G. Pereira, *The AIPN JOA: Practical Guide* (Globe Law and Business 2019), Eduardo G. Pereira (ed.), *Joint Operating Agreements: Challenges and Concerns from Civil Law Jurisdictions* (Kluwer International Law 2015), Eduardo G. Pereira (ed.), *Understanding Joint Operating Agreements* (Intersentia 2016), Eduardo G. Pereira, Wan M. Z. Wan Zahari (eds), *Joint Operating Agreement (JOA): Applicability and Enforceability of Default Provisions* (RMMLF 2018), Eduardo G. Pereira, Damilola S. Olawuyi (eds.), *Practical Considerations to Negotiate an Enforceable Joint Operating Agreement Under Civil Law Jurisdictions* (2nd edn Kluwer International Law 2020), Eduardo G. Pereira, 'Protection Against Default in Long Term Petroleum Joint Ventures', *Oxford Institute for Energy Studies* WPM 47 (2012), Meri-Katriina Kanervisto, Eduardo G. Pereira, 'National Oil and Gas Companies Operating in Upstream Projects and Participating in Joint Operating Agreements' *OGEL* 11 (2013) 4, Anna Ovcharova, Tonje P. Gormley, Eduardo G. Pereira, 'To What Extent Should a Host Government Interfere in the Drafting and Conclusion of a Joint Operating Agreement?' *UEF Energy Law Review* (2016) 1, Eduardo G. Pereira, Keith Hall, 'Joint Operating Agreement: Operatorship role, options and concerns' *MaIrus* (2017) 486, Christopher Mathews, Eduardo G Pereira, 'Joint Operating Agreement: understanding different interests and concerns in the wake of Reeder v. Wood County Energy' *MaIrus* (2017) 486, Eduardo G. Pereira, 'Enforceability of Default Provisions under Joint Operating Agreements' *Houston Journal of International Law* (2019) 4.

[142] Styles (n 133) 20.

3.1. Parties to JOA

The JOA is made up of an Operator and non-operating parties. On the one hand, the Operator bears responsibility for controlling and conducting all E&P activities under the HGI. On the other hand, non-operators are not responsible for the conduct of the E&P activities, but still have indirect control of operations (voting, electing for consent to any operation etc.) and are liable for the operations conducted by the Operator on behalf of the consortium.[143] All parties have a duty to make financial contributions following a 'cash-call' from the Operator, according to their participating interest in the JOA.

There are several model form joint operating agreements available from various organisations, such as the Association of International Petroleum Negotiators 2012 (AIPN) Model JOA, which is used worldwide except for in jurisdictions where other model forms are applied (e.g., AAPL in the USA and OGUK in the UK). Here we consider some of the key provisions established in the JOA:

3.2. Key terms of JOA

We will look through the main issues of the JOA:

- Operator (rights, obligations, liability, removal)
- Operating Committee
- Exclusive Operations: 'Sole Risk' and 'Non-Consent'
- Default
- Withdrawal
- Taking in kind oil/gas
- Decommissioning

3.3. Operator (rights, obligations, liability, removal)

Parties to the JOA elect and appoint the Operator. The main rights and duties of the Operator:

- **Rights**: controls and conducts all joint day-to-day operations; representing the consortium in all affairs with the Government; gains cash flow.
- **Duties**: general management; specific duties (preparing annual work programmes; to provide staffing and the hiring of contractors; conducting operations in a reasonable and prudent manner; accounting for all funds; providing information to non-operators and operating committees etc.).

An Operator may owe fiduciary duties to the Parties given the nature of the relationship between them and the non-operators; an Operator acts on trust for the other Parties, conducting operations on behalf

[143] ibid 32-33.

of all the members of the JOA. Although each party to the JOA lifts its allocation of production and markets it directly, the manner in which the Operator conducts operations has an effect on the profitability of the venture for all concerned parties.

In relation to the liability of the Operator, it is necessary to mention the core, "no gain no loss" JOA principle. It constitutes that the Operator does not financially profit from holding that position and does not bear any extra liability because of such role. The Operator is liable only in proportion to his participating interest for acts and omissions appearing in the process of conducting joint operations (i.e., exculpatory liability).[144] Most JOAs would include a range of exclusions on the Operator's liability, consistent with the 'no loss no gain' principle. Where non-operators have suffered loss, the Operator's liability would generally be limited to gross negligence or wilful misconduct on its part.[145] In such an event, the Operator might be held liable over its proportional share of participating interest.[146] As for removal, the grounds for that are usually related to the financial difficulties of the Operator (insolvency, default and etc.) or for a material breach. When the Operator is removed, the new one should be elected through the voting procedure in the Operating Committee. Notably, Both the appointment and removal of an Operator must be approved by the HG.[147] Nevertheless, it should also be noted that it is complex process to remove any Operator.

3.4. Operating Committee

The Committee serves as an authoriser and supervisor of all joint operations during the five stages of an E&P project: exploration, appraisal/evaluation, development, production, decommissioning/abandonment. The Operating Committee is comprised by the Parties or its representatives. The Committee makes decisions through a voting procedure where each Party's vote is in proportion to its participating interest. Also, the Committee might be required to grant/approve the Authorisation For Expenditure (AFE).[148] In the case where the Operator is exceeding the budget, the position is usually for it to seek AFE approval.

3.5. Exclusive Operations: 'Sole Risk' and 'Non-Consent' clauses

The JOA normally includes a clause regulating Exclusive Operations (sole risk) conducted by one of the Parties. A sole risk endeavour is essentially where a single member or at least less than all parties of the JOA pursues independent oil and gas activity in an area of the JOA, generally because the other parties of the JOA do not wish to proceed because of doubts related to the prospects of such activity (for example, the drilling of an additional well). The sole risk party bears all the rights and liabilities from the activity. In turn, a non-consent clause allows one or more members of the JOA, in certain joint activities, to elect not to participate and consequently not to bear liabilities (or accrue rights);— however, there

[144] Pereira and Mathews (n. 141) 80.

[145] 'No gain no loss - but what about liability for an Operator under a Joint Operating Agreement?' (Ashurst, 27 March 2020) <https://www.ashurst.com/en/news-and-insights/insights/no-gain-no-loss---liability-for-an-operator-under-a-joint-operating-agreement/> accessed 03 September 2020.

[146] Pereira, *Joint Operating Agreements: Risk Control for the Non-Operator* (n. 141).

[147] ibid.

[148] ibid.

are limitations on activities subject to non-consent. These clauses are aimed at defending minority economic interests in particular operations where the majority of the Parties either declined or supported.[149] As the operation is exclusive, the Party (or Parties) bear all the risks, costs and liabilities related to such operations, and gain benefit for themselves, not sharing it among the rest consortium. Additionally, they also conduct recalculation of the participating interest in respect of such operation. In the event that such operation appears to be successful, the clause may contain a provision under which the non-participating majority may join the operation at a higher premium up to a certain period. It is important to state that such Exclusive Operations cannot interfere with the Minimum Work Programme, as each Party is obliged to fulfil obligations under the Programme and Joint Operations, such interference would lead to conflict with operations of a different nature.

3.6. Default

One of the main attractions of the JOA is that it allows IOCs to reduce their risk exposure in the HGI; however, the JOA has risks of its own. The most significant risk it poses is that any party may fail to keep up with its financial obligations under the JOA. Default typically involves the suspension of voting rights,[150] loss of the right to access JOA information, loss of access to petroleum,[151] and finally, a range of consequences which can include buy-out, withering options, assignment or forced transfer and the most severe outcome, forfeiture of the participating interest of the breaching party.[152] Although different regions might prefer certain remedies for dealing with default in the petroleum industry,[153] it appears to be triggered only when the breaching party has failed to remedy its breach within the period of grace (generally sixty days).[154] During this period, the non-defaulting parties would typically have to make good the shortfall of cash pro rata to their interest.[155] This notion seemingly conflicts with the very idea of sharing risks/costs based on participating interest solely. However, the commercial rationale for this is to ensure continued operations in a timely manner and ultimately, the survival of the JOA. Despite the variety of default remedies available, these are often open to challenge on enforceability, particularly in relation to the penalty rule in common law countries.

3.7. Taking in kind

Another contractual arrangement typical to the JOA is the Take-in-Kind obligation clause. Under this clause, each Party has a right and an obligation to take the produced oil and gas in proportion to its participating interest. When the production has been taken in kind by a particular Party, that Party has ownership of that production and can further sell it. The reasons for taking resources in kind are simple: it is practical in terms of gaining profit – each Party enters into a separate undertaking and no Party holds this production on trust; in this regard, this clause follows the principle of separate ownership –

[149] Junaidu B. Marshall. Joint Operating Agreements in Oil and Gas Industry: the consequence of Sole Risk and Non Consent Clauses to Joint Operation. 2016. Journal of Asian Business Strategy.

[150] Greenland Model JOA 2004, art 11.3.2.

[151] See for example Greenland Model JOA 2004, Article 11.3.1.

[152] ibid, art 11.3.3.

[153] Pereira, *Encyclopaedia of Oil and Gas* (n. 127) 110.

[154] Taverne (n 1) 390.

[155] See the Model Denmark JOA 2014, art 11.1.d.; Greenland Model JOA 2004, art 11.1.B.

each Party pays taxes in proportion to the oil and gas extracted and does not incur joint and several liability or possible partnership consideration.

3.8. Decommissioning

This is another important clause for the JOA; the HG must ensure that every instance of artificial influence on the environment be removed or at least left without causing a harmful impact (to the degree that is possible and permitted). Normally, decommissioning is conducted by the Parties, as they bear all costs and risks of requisite plugging and abandonment processes.[156] In order to deal with these aspects, JOA parties often create security funds or enter into decommissioning security agreements, which are used to cover expenses for decommissioning in the future, when operations have been completed. . In some cases, the dismantling of rigs, wells and other equipment is unsuitable for a particular Party to undertake and therefore a Party may seek to pursue safe abandonment processes instead, such as making an artificial reef etc.

4. Unitization and Unit Operating Agreement (UUOA)

4.1. Definition of 'unitization' and 'unit'

It is essential to define unitization. Phillip Weems provides the following definition: "Unitization is the process whereby a straddling reservoir is jointly developed by the licensees of the adjacent licence areas".[157] Unitization was explored due to geological reasons: despite the areas for E&P, activities are designated by landlords or governmental authorities and boundaries between them are expressly outlined. A licensee from a neighbouring area may extract oil and gas from the same reservoir that formed millions of years ago, and as such this reservoir becomes straddling.

A JOA is entered into in respect of a licence or contract area explored and/or exploited by multiple IOCs working collaboratively. In contrast, a unitisation agreement is in respect of several contract areas. Joint development of the area is inspired by economic efficiency, as each individual company and each consortium seeks to minimise costs while increasing profit. When the straddling reservoir is situated between two countries, parties tend to enter into a cross-border unitization process, which needs to be approved by the governments of both countries.

For the purposes of industry, the aggregate of ownership interests in the common reservoir[158] is called 'unit'. Each unit will have a unit interest (also known as tract participations/unit equity[159]) which will determine respective rights and duties. The primary duty of each unit is to make a cash contribution according to its unit interest. In return, each unit also receives a percentage of production based on its unit interest. Thus, the Parties exercise joint ownership of all resources and facilities[160] within the designated area. Indeed, such licensees would need to agree on: what share of this common reservoir will

[156] Pereira (ed.), *Understanding Joint Operating Agreements* (n 141).

[157] Philip Weems, King & Spalding, 'Oil and Gas Unitization: Specific Considerations for Cross-Border Unitization' (JDSUPRA, 2016) <https://www.jdsupra.com/legalnews/oil-and-gas-unitization-specific-17185/> accessed 1 November 2019.

[158] Sean Rush, 'Unitisation and Redetermination' <https://www.seanrush.co.nz/wp-content/uploads/Chapter-4-Unitisation-and-Redetermination.pdf> accessed 6 February 2020

[159] Beggs and Bremen (n 91) 63.

[160] Philip Weems, King & Spalding (n 157)

each of them use and under what conditions; how much and how frequently should the company pay for using this source.

4.2. Definition of UUOA

UUOA is an agreement between the licensees (usually consortiums operating under the JOA) of the neighbouring licensed areas, which sets out terms and conditions under which the Parties will conduct their development of the unit area. The UUOA regulates relations of the licensees in two respects: (i) the formation of the unit, and the allocation of unit costs and production between the contract groups; and (ii) the operation of the unit reservoir. In some cases, parties would sign two separate agreements concerning each separate issue (Unitization Agreement and Unit Operating Agreement respectively).[161]

4.3. Parties to UUOA

Similar to the JOA, one Party will have the role of an Operator, specifically Unit Operator. As is found in the JOA, the Unit Operator is often the Party with the greatest unit interest. However, exceptions can be made to appoint a party with lesser interest as Operator, where it has greater technological or financial resources. In general, Parties are called Owners or Tract Participants.

4.4. Key terms of UUOA

It is often stated that key terms of the UUOA are similar to the JOA terms. This would be a fair assessment, as both instruments regulate operations of independent Parties within the certain area with the common resources. However, taking into account the differences and specifics of the UUOA, we will focus on the following key terms:

- Unitization
- Supremacy of UUOA
- Tract Participation
- Disposition of Production
- Non-Unit Operations
- Redetermination

4.5. Unitization

This clause appears to be the first that differentiates the UUOA from the JOA. It establishes combining ('unitizing') the interests of the Parties in one unit proportionate to how much each Party owns under its licence.

4.6. Supremacy of UUOA

This clause stands for the prevailing role of the UUOA over other agreements that precede the UUOA or may take place in the future, in respect of the unit area or its part. Usually, the UUOA comes after a Pre-

[161] ibid.

Unitization Agreement (PUA), which is aimed at designating the area, terms and conditions, perspectives in this particular field, evaluating the work to be done for the development purposes and doing all preparation activities after which the UUOA may be signed. In this connection, the role of the UUOA's Supremacy is obvious: it will supersede the PUA (or even the relevant JOAs) and prevent the Parties from misunderstandings. Another point here is that any work commenced under the PUA may be progressed in accordance with the UUOA.[162]

4.7. Tract Participation

Tract is a proportion of interest, which each Party holds in the unit under the UUOA. Tract Participation depends on the percentage of each Party's share in the common reservoir. Thus, this clause serves for allocation of the proportions of the reservoir and then defining each Party's unit interest as a total amount of shares in various tracts.[163]

4.8. Disposition of Production

This clause also distinguishes the UUOA from the JOA. The inclusion of this clause is because, as Sean Rush notes, the UUOA *"is negotiated in the context of a known discovery and a draft Field Development Plan (FDP), with identified oil and gas lifting and transporting options*".[164] It means that the Parties are already aware of quantities of the resources and will obtain them in accordance with the FDP which was worked out on the PUA stage. This is also the reason why the Sole Risk concept is rarely included in the UUOA. It is necessary to highlight that typically this clause contains a provision stipulating that any production will be considered as extracted from the recipient's concession area, thus taxes are imposed on the received production and paid by the recipient, not by the area's occupier.[165]

4.9. Non-Unit Operations

This is somewhat similar to the JOA's Exclusive Operations, but as the principles of Non-Consent and Sole Risk cannot be applied, we shall review the main differences. First, since the FDP prescribes the activities to be achieved, such operations should not contradict the plan. Second, the Non-Unit Operations are commonly conducted outside the common reservoir but within the Unit Area, therefore, before it starts the Party has to be granted consent to do so by the Unit Operating Committee.[166] Finally, such operations are conducted by the Unit Operator "in order to ensure the unit operations are not compromised", as Sean Rush highlighted. [167]

4.10. Redetermination

At the beginning of unitised operations, the initial unit interest of each group is decided through an estimation of the hydrocarbons in the shared reservoir, as at the time unitised operations begin.[168] The parties must agree on the method through which the initial interest will be calculated. Parties typically

[162] Rush (n 158), Philip Weems, King & Spalding (n 157).
[163] ibid.
[164] ibid.
[165] ibid.
[166] ibid.
[167] ibid.
[168] Beggs and Bremen (n 91) 64.

seek an estimation that best represents the reality, since financial liability, access to production and voting powers are all tied to unit interest. However, in order to gain a more accurate estimation of unit interest, there will be a redetermination study during the production stage, when there is more information about the reservoir.[169] Redetermination is a process of adjustment of initial shares of tract participation in one of the events envisaged in the UUOA. These events typically include: expiration of fairness and equity of current Tract Participations due to the last data obtained from the wells; when the volume of the extracted resources reaches the amount agreed in the UUOA; when a certain pre-determined date of when the Tract Participations shall be revised has arrived .[170] As the Parties have their own interests in the unit, they are usually unable to come to unanimity during the redetermination. Where this occurs, the solution is to appoint an independent expert, who will revise and determine the unit interests reflecting the proportion of unit interval (reservoir) and the latest changes in the database.[171]

5. Service Contracts

This section discusses particular types of service contracts that are integral to operations, such as:

- Drilling Contracts
- Master Service Contracts
- Seismic Licensing Contracts

5.1. Drilling Contracts

Under the drilling contract, one Party (Drilling Contractor) performs well-drilling works and is commissioned by a Field Operator at his own risk and sole expense. The Drilling Contractor's 'reward' for the works is, usually payment in cash, which is agreed before the drilling works are commenced. There are two main types of drilling contracts:

- Turnkey contract (where the Contractor gains profit at the end of the drilling works and he exercises control over all operations);
- Day-rate based contract (where the Contractor gains a flat fee for each day of work in accordance with day rate calculated from the total value of the contract and number of days to perform).

(a) Key terms of Drilling Contracts

Key issues to be considered under the drilling contract are:

1) **Price of the contract (day rate/turnkey price)**. Routinely, the Parties would discuss issues of pricing at the very beginning of their negotiations.[172] First, the whole price of the contract is agreed. This is particularly important for the turnkey contracts as a greater risk is borne by the Contractor, who would not want the costs of works to increase in the

[169] ibid.
[170] Rush (n 158), Philip Weems, King & Spalding (n 157).
[171] ibid.
[172] Thomas (n 41).

future. In the event of a day-rate contract, the day-rate is calculated on the basis of the current market price. After that, the Parties negotiate the manner in which consideration will be provided.

2) **Indemnification**. As Andrew R. Thomas mentioned: "a common indemnification provision used by producers [Field Operators] requires the contractor to indemnify the producer for "all loss, damage, injury, liability, and claims thereof for injuries or death of persons, and all loss of or damage to property of others, resulting directly or indirectly from contractor's performance of this contract".[173] In turn, the Contractor would seek terms that require indemnification from the Field Operator to cover claims made by the Operator's employees, other contractors and their employees, that result from damage caused to their health, life and property by the Contractor.[174] Typically, a knock-for-knock indemnity scheme is used.

3) **Risk Allocation**. Traditionally, the Contractor performs the works at his own risk. However, the Contractor is not always liable where events do not go as planned. Thus, the Parties set out provisions in the contract that reference the measures that may be taken according to what happened, who is liable for what and to what extent. The Risk Allocation process is key to the Contractor in the turnkey contract.

4) **Waiver of Consequential Damages**. Under the industry standard, liability for indirect losses may be imposed only if gross negligence can be proved.[175] Andrew R. Thomas connects the thinking behind this policy with the inability "to insulate oneself from the consequences of intentional or reckless behaviour".[176] Thus, the Contractor will strive to include provisions in the contract that limits liability to any force majeure events or other Party's acts or omissions. The appropriate solution here would be a limitation of waiver by including the gross negligence concept. However, some courts will not recognise such limitation clauses and, as is often the case in such circumstances, gross negligence is not easily proven.

5.2. Master Service Agreement (MSA)

Gordon Lusky defines a MSA as "*a legal agreement between two parties that lays out the legal terms and conditions that will apply to all work that is thereafter ordered by an operator and accepted by a contractor*".[177] From this definition, one can see that the MSA is a preliminary agreement, which sets out future arrangements in respect of purchasing goods, providing services, etc.

The main purpose of the MSA is to reduce paperwork: once the conditions of any future deal negotiated by the Parties are validated, they do not need to be renegotiated. As a result, the Parties can commence

[173] ibid.

[174] Owen L. Anderson, 'The Anatomy of an Oil and Gas Drilling Contract', (1990) Tulsa Law Review, Vol.35 p.436.

[175]ibid.

[176] ibid.

[177] Gordon Lusky. 'Oilfield Master Service Agreements' (*Gordon Lucky LLP*, 6 March 2019) <https://gordonlusky.com/2019/03/06/oilfield-master-service-agreements/> accessed 07.02.2020.

work right after the working order is issued.[178] This form of agreement saves time, but it is important that its provisions accurately reflect the intention of the contracting parties.

(a) Key terms of MSA

Primarily, consideration will be given to the following:

- Terms of Payment: this provision outlines when the payment shall be due and how it should be provided. Generally, the Contractor will not commence supply of goods and services until he is paid for the same. Parties may agree on other forms of payment.
- Product/Services Warranties: typical scope of warranties in respect of supplied goods or provided services, with certain industry contract standards.
- Risk Allocation: risks are divided between two parties and specifically includes the risks and responsibilities of the Contractor and its employees under the agreement.[179]
- Indemnification: as a normal practice, indemnity clauses are based upon either knock-for-knock basis or negligence basis.[180] Indemnities typically address industrial issues such as pollution, contamination, seismic events and other highly costly matters.[181]

An additional point of note regarding the MSA, as highlighted by Vethan Law Firm is that the, "*master service agreement may also cover other items, such as corporate social responsibility, business ethics, network or facility access, or any other term critical for all future agreements*".[182]

5.3. Seismic Licensing Agreements

Under this agreement, one party (Licensor, Seismic Company) sells (licenses) geophysical, geological and other relevant seismic data to another party (Licensee, Producer). This agreement sets out rights, obligations and liabilities in respect of seismic data, and includes the manner in which data is to be disclosed and subsequently stored, data processing issues and representations and warranties.

(a) Disclosure of Seismic Data

Both parties must have the capacity to disclose and obtain such data. For instance, disclosure can only be committed if the Seismic Company has all rights to this information. After the disclosure, Parties should set up limitations on disclosure to third parties.[183]

(b) Processing Data

[178] ibid.

[179] 'What is a Master Service Agreement and Why Do I Need One? (VLF, 27 September 2016) <https://info.vethanlaw.com/blog/what-is-a-master-service-agreement-and-why-do-i-need-one> accessed 15 September 2020.

[180] ibid.

[181] ibid.

[182] ibid.

[183] Thomas (n 41).

This clause concerns what type of information the Licensee needs. It may request basically processed seismic information or request the raw data[184] for initial studying purposes.

(c) Representations and Warranties

As Andrew R. Thomas notes, the Seismic Company's main representation would be in respect of the accuracy of the data licensed to the Producer. It guarantees accuracy of the information obtained and filtered, in accordance with industry requirements and "in workmanlike manner".[185]

6. Financing Agreements

The exploration and production of oil and gas requires significant capital. The main principle of financing E&P projects is the confirmation of natural resources in the field (particularly in commercial quantities), since banks and other financial institutions will need solid assurances of bankability before participating in such projects. Therefore, more financial options become available to the companies after the commercial discovery confirms that a particular field will yield profits during an estimated period of time in future.

Financing instruments related to the oil and gas industry fall into two categories[186]:

1) Pure oil and gas financing instruments (reserve-based lending, volumetric production payments and financing mechanisms with "carry" between the partners involved in E&P contracts); and

2) General financing instruments (equity financing, bonds, Islamic finance).

The discussion below provides a basic overview of each type of financing instrument and outlines key issues to consider when using one or another of these instruments.

6.1. Reserve-Based Lending (RBL)

RBL is true to its name, in that it is a financing instrument where the amount of money to be borrowed depends on the amount of resources the company has in its oil/gas field. Resources appear as a security for that type of financing. Usually, repayment of that type of loan is exercised by using cash gained from the realisation of these resources.

First, the financial institution would conduct an assessment of the company's reserves, after which it would calculate a net present value (NPV). NPV represents the value of the expected production along with other receipts from the field.[187] The NPV is also a sum of money that reflects the difference between the initial investment and cash outflow over a certain period of time[188] (so it shows how much the bank can gain through this project). After the NPV is calculated, the next sum to be considered is a Borrowing Base Amount (BBA), which is the maximum amount of money that the bank can lend to the oil and gas

[184] ibid.

[185] ibid.

[186] Duff & Phelps, 'Financing Instruments in The Upstream Sector' (Oil and Gas Intelligence Report, 2018).

[187] Ben Holland, 'Decommissioning in the United Kingdom Continental Shelf: Decommissioning Security Disputes' (2016) 28 Denning Law Journal (Special Issue) 19, 26.

[188] Will Kenton, 'Net Present Value (NPV)' (*Investopedia,* 2020) <https://www.investopedia.com/terms/n/npv.asp> accessed 7 February 2020.

company. As Duff & Phelps mentioned, this amount "will change throughout the life of the asset",[189] which reflects changes in the reserves amount, oil and gas market price, as well as changes in the operating costs of a borrower during the project. The aforementioned factors have an impact on the calculation of the BBA, together with an estimated production flow.

(a) Key Considerations in RBL

The key negotiations in such type of agreement shall be around the following:

- Redetermination of the BBA (Parties have to agree on factors by which and the manner in which the BBA will be recalculated);
- Risk Insurance (as the bank requires a guarantee that if events prevent the company from production it will be covered by insurance and not result in losses):
- Default (Parties must agree on the applicable options where the company is faced with financial challenges).

6.2. Volumetric Production Payments (VPP)

The VPP agreement is a financing instrument by which the oil and gas producer transfers to the investor a temporal royalty interest which gives the right to an agreed share of extracted resources, in exchange for a negotiated sum of money.[190] Consequently, the amount of money that the oil and gas company may receive depends on how much resources it may provide in consideration to the bank, as well as the future perspectives of particular oil/gas field. It is worth noting that the investor often requires the producer to invest the money in the E&P activities immediately in order to stimulate growth in the project, enabling the investor to recover money sooner.[191]

Main risks in this type of financing are:

Commodity price risk (it is when the ultimate hydrocarbons sale price becomes less than what the investor paid to the producer.[192] This risk can be mitigated by hedging the expected volumes of oil via the derivatives market[193])

- Volume risk (this concerns a situation when the investor does not receive the expected purchased volume due to lack of estimated hydrocarbons or some other reasons not controlled by the Operator. A solution proposed by Duff & Phelps, is to conduct a thorough assessment of the Operator's assets, used technologies, reservoir data, experience of staff and etc. It is also recommended to "set the percentage of the contracted production…limiting it to proven reserves".[194]

[189] Duff & Phelps (n 186).

[190] David Heidenreich, 'To VPP or not to VPP…' (*Carrington Coleman*, 2019) <https://www.ccsb.com/our-firm/publish/to-vpp-or-not-to-vpp/> accessed 07 February 2020

[191] ibid

[192] Ibid.

[193] James Chen, 'Volumetric Production Payment (VPP)', (*Investopedia*, 2020) <https://www.investopedia.com/terms/v/volumetric-production-payment.asp> accessed 07 February 2020

[194] Duff & Phelps (n. 186).

- Operational risk (this concerns situations where the Operator/producer fails to perform its E&P operations in a prudent and workmanlike manner. Thereby, making it difficult to recover the investment in the most efficient manner. One mitigation method is to increase the volume of production to be provided so that it can cover the VPP price and approve the tail reserves.[195] Nevertheless, this may only delay the inevitable where the Operator's recklessness or negligence continues to jeopardise the success of operations.)

Therefore, the main consideration will be given to mitigating or excluding the above-mentioned risks and: Terms of Payment; Insurance; Duration of the contract (of particular importance); Default and other typical financing agreement clauses.

6.3. "Carrying" Financing

The carry of an asset is the cash return gained as a result of holding such an asset.[196] Considering the specific nature of the oil and gas industry, Duff & Phelps define the "carry" as an "*excess of expense-bearing interest over its working interest*".[197] In E&P projects, this type of financing may be applied when the new company enters the oil/gas field or substitutes a company who has ceased to operate in this field or dilutes its participation. For example, we already have Company A in existence, which operates Oilfield A. It needs to optimise costs and reduce financial risks related to its obligations at the exploration stage, so it sells some of its working interest in the contract to Company B that just entered the contract. Thus, the new company agrees to cover future expenses in exchange for that working interest, and when the share of expenses exceeds the cost of the working interest, it means that the purchaser of the working interest is "carrying" the seller of that interest.[198] For the company entering the contract with the HG, it would be important to look through this contract, taking into account obligations at the exploration stage.

6.4. Equity Financing

Equity financing is a method of raising capital through the sale of shares.[199] Shares are sold in exchange for cash. It may be one of the most common type of financing when the company needs to raise cash. The shares may be sold through Initial Public Offerings (IPOs) or through private offerings. Duff & Phelps noted, that "*the equity can be issued from the parent company or from a subsidiary*".[200] Thus, there are related companies who may provide cash to the oil/gas production company in return for cash flow.[201]

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[195] Liz McGinley, 'Volumetric Production Payments', (*Bracewell*) <https://bracewell.com/sites/default/files/knowledge-center/1-9-2017%20DM%20%234274882%20v4%20VPP%20API%20Presentation-McGinley1.pdf > accessed 07 February 2020

[196] Ralph S.J. Koijen, Tobias J. Moskowitz, Lasse H. Pedersen, Evert B. Vrugt, 'Carry' (2016) Fama-Miller Working Paper, <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2298565> accessed 7 February 2020

[197] Duff & Phelps (n. 186).

[198] Ibid.

[199] Caroline Banton, 'Equity Financing' (*Investopedia*, 2020) <https://www.investopedia.com/terms/e/equityfinancing.asp> accessed 07 February 2020

[200] Duff & Phelps (n. 186).

[201] ibid.

6.5. Bond Issuance

Another widespread way of raising finances is the issuance of bonds. Under the bond issuance agreement, the investor agrees to give the company a specific amount of money in return for interval interest payments.[202] This operates like a loan agreement but provides for lower interest rates to be repaid to the investor and does not pose restrictions like the bank loan agreement. It is deemed to be a complementary financing instrument together with VPP, RBL and others.[203]

6.6. Islamic Finance

This type of financing is one which must be specifically conducted under Sharia laws and based upon principles of the Quran. The relevant principle here is that the earning of any interest in lending money is banned (considered "haram"). Rather, the borrower provides a share of his profit instead of 'interest', in order to meet this requirement.

Duff & Phelps outline two basic forms of Islamic Financing Arrangements:[204]

- "*Financing agreements based on a sale-and-buyback agreement of an asset, determining a margin in the transaction. The sale can be structured as a normal sale or lease. The margin is the profit that replaces the interest; and*
- *Contracts based on the share of the resulting net income of the projects, where the bank contributes capital to and participates in the profits generated in a way in which the risk is shared between both parties*".[205]

Although it is not widespread or used throughout the history of oil and gas activities, this type of financing is likely to gain increased relevance as the countries applying Islamic law (Sharia) tend to raise the importance and influence of traditions and religion while combining them with modern regulations.

Key Chapter Points

The business activity involved in upstream oil and gas is some of the most complex and expensive undertakings in the world. Due to this, there are many specialised agreements to govern relationships between the companies, the financiers, private parties, and the government. This chapter was designed to provide a brief overview and working knowledge of these agreements and hopefully spark a deeper interest in some of the agreements that you will surely encounter while working in the industry. The sources cited in the footnotes are a great source of information to deepen your knowledge on each agreement. In the next chapter we will move on to a discussion of the midstream oil and gas industry. This will include discussions about transportation, storage, and Liquefied Natural Gas, to name a few.

[202] Lisa Smith, 'Why Companies Issue Bonds' (*Investopedia*, 2020) <https://www.investopedia.com/articles/investing/062813/why-companies-issue-bonds.asp> accessed 7 February 2020

[203] ibid.

[204] Duff & Phelps (n. 186).

[205] ibid.

CHAPTER 5: Midstream Oil and Gas

This chapter discusses the key aspects of oil and gas midstream activities. First, we will review the transportation aspects in terms of advantages and disadvantages of each means of transportation. Following this, the discussion will proceed to an evaluation of issues related to oil refining and gas processing. In doing this, we will mention the economics of each substance and safety measures. In respect to the oil and gas storage methods we will assume briefly the main risks that could affect the storage process and lead to negative environmental and economic consequences. Later we will provide a short comparison of Natural Pipeline Gas and LNG considering its main characteristics. Next, we will give you an overview of key agreements in transporting, processing, refining, storing, selling and purchasing oil and gas. The following midstream agreements will be discussed: Crude Oil Transportation Agreement, Gathering and Processing Agreement, Storage Agreement and Natural Gas and Liquefied Natural Gas Sale and Purchase Agreements.

1. Transportation of Oil and Gas

Following production, hydrocarbons must be transported from the place of extraction, often via gathering facilities and land terminals to a refining or processing plant and then, in a processed or refined form, onward to a trading company and finally to the end user.

When an oil and gas company has discovered a commercial volume of hydrocarbons and evaluates the appropriate form of transportation from such a discovery, a number of factors must be addressed. Among them are the following:

- Type and volumes of hydrocarbons discovered
- State of aggregation of the hydrocarbon
- Position of oilfield (whether onshore or offshore)
- Costs

Oil and gas may be transported by the following means:

- Pipelines
- Land transport (trains, trucks)
- Marine transport (oil tankers and LNG carriers)

1.1. Pipeline

As outlined by Concawe: "*pipelines are a long-established, safe and efficient mode of transport for crude oil and petroleum products*".[206] Pipeline is a long-distance tube construction which may be dragged both underwater and through the land and is designated to supply large volumes of the minerals produced. If we consider the transportation of Natural Gas, pipelines are essential and the one optimal solution particularly considering the aggregation state for this substance. Pipelines are considered to be a core transportation method used in the oil and gas industry, that predetermines the further development and lifespan of the oil and gas projects. Oil can be transported through cargo vessels or pipelines, although the latter is less frequently used in the offshore sector.[207] Additionally, because of the volume to liquid ratio of natural gas, pipelines are the primary method of transportation.[208] These pipeline arrangements take years to complete and require substantial upfront investment. Some advantages of pipeline transport are listed below:

- Capability (the volume of the hydrocarbons that can be transited through the pipeline will stimulate the process of recoupment of the pipeline and other costs borne);
- Universality (pipeline construction may be dragged both onshore and offshore);
- Long-distance (as pipelines are constructed for the purpose of minimising transportation costs and hence, they are usually built to cover long distances);
- Provides direct transportation of minerals to refining/processing facilities (this is another point that is supported by the minimising costs objective);

Despite the fact that pipeline transportation methods provide excellent economic efficiencies, there are disadvantages that should not be ignored. These include the following:

- Pipelines are not secured absolutely against blow out or leakage or acts of God. Therefore, as the quantities being transported are huge and such process cannot be stopped immediately, any such occurrence would lead to severe environmental pollution, potential public stigma and the responsible party would incur additional expenses;
- Difficulties may arise in terms of maintaining the pipelines especially in relation to, costly service works and hard to access pipes e.g. service works that are conducted underwater;
- Pipelines may be affected by unauthorised connections, which would result in unexpected costs on the part of the company.

Conversely, the above-mentioned risks are being covered by the modernisation of construction and security technologies used.

[206] Concawe, 'Oil Pipelines' <https://www.concawe.eu/topics/oil-pipelines/> accessed 7 February 2020.

[207] Marc Hammerson, *Upstream Oil and Gas: Cases, Materials and Commentary* (Globe Law and Business 2011) 294.

[208] ibid 293-294.

1.2. Land transport (railway transport, trucks)

a) Railway transport

Another efficient method of oil and gas transportation is railway transport. It provides the ability to transport relatively large volumes of the hydrocarbons, however, it is less likely to be used to transport Natural Gas.

The discussion below considers the advantages and disadvantages of railway transport:

Advantages:

- Capability (commercial railway trains may carry relatively solid quantities of oil or LNG via reservoirs installed on the platforms);
- Costs of construction and operation (as all of the efficient constructing technologies are available and railway transport is run by electricity, as such, the oil and gas company would not incur the same expenses inherent to pipeline transport);
- Time of construction (this supports a point on efficient constructing technologies and the qualified staff available)

Disadvantages:

- Railway accidents may lead to considerable environmental pollution and delay in transportation for a host of parties, oil and non-oil related activities.

b) Trucks

Trucks represent another useful onshore transportation method. Trucks are particularly useful in terms of their mobility and the fact that they do not require special infrastructure to operate. However, there are a number of disadvantages, such as:

- Less capability (trucks have much less load capacity than other forms of transportation in this sector)
- Time consuming road journeys
- Inability or constraint accessing some rough terrains
- Issues related to car accidents, mechanical troubles etc.

1.3. Marine transport (oil tankers)

If the oil or gas cannot be transported on the land, then the oil tankers, barges and other designated vessels are the solution. In comparison to the other transportation methods, marine transport is con-

sidered to be economically efficient, as it is capable of transporting typically 30,000 barrels of hydrocarbons, equal to 45 rail tank cars, whilst being three times cheaper than rail.[209] The advantages of the marine transport are as follows:

- Capabilities (as explained below)
- Ability to transport around the world

Yet, marine transportation would face certain difficulties, such as:

- High reliance on the weather conditions
- Time consuming (as ships are not particularly fast)
- Pirates
- Risk of oil spills, complex disputes concerning pollutions and other environmental issues.

Overall, the various forms of transportation methods are subject to a unique set of statutory regulations; however, with each of these methods, the licensee/contractor would be mostly concerned with the environmental issues that can could materialise, whilst at the same time seeking to minimise the costs.

2. Gas Processing/Oil Refining

The midstream stage can be characterised by the activities that add value to the raw product (oil or gas) so that it becomes more marketable step by step. Technically, the process consists of the separation of the chemical components from the raw products and is called 'fractionation'.[210] For the purposes of industry, oil fractionation is defined as 'refining' and for gas it is called 'processing'.

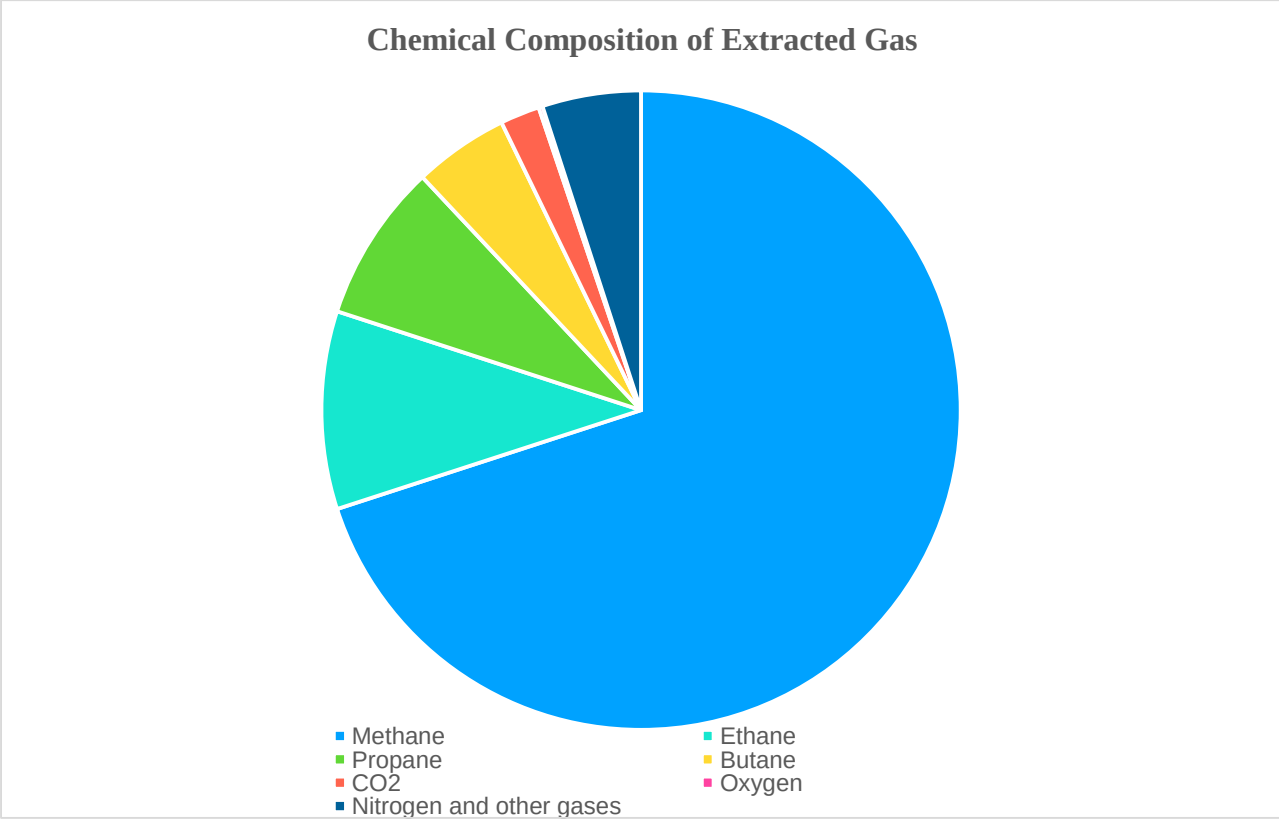
2.1. Gas Processing

In the Level 1 module, readers were given the basic information about objectives for and stages of the gas processing. To complement this knowledge of gas processing, it is useful to provide additional information concerning Natural Gas Liquids (NGLs), that also impacts upon the economics of the gas production.

(a) NGLs

[209] 'Oil Transport' (*Student Energy*) <https://www.studentenergy.org/topics/ff-transport> accessed 9 February 2020.

[210] 'Gas Processing – Fractionation' (*Oil and Gas Process*) <http://www.oilngasprocess.com/gas-production-facility/gas-processing-fractionation.html> accessed 9 February 2020.



This diagram shows the chemical components of the extracted gas, where proportions are placed in the following quantities[211]:

- Methane – 60% up to 90%
- Ethane – 0-20%
- Propane – 0-20%
- Butane – 0-20%
- Carbon Dioxide – 1%
- Oxygen – 0-0,2%
- Nitrogen and other gases – 0-5%

As the Methane mainly comprises the 'pipeline quality' Natural Gas, other gases have a small share in overall production. They are commonly called 'Natural Gas Liquids'. However, fractionation of gas results not only in adding value by selling the Natural Gas through the pipelines, but also selling the NGLs to be used within a large list of the end products. For example, combination of butane and propane produces the Liquefied Petroleum Gas (LPG),[212] which is used as alternative fuel for vehicles, heating facilities and stoves, as well as being used in all plastic goods. It is also used as a propellant and refrigerant.[213]

[211] The composition of the Natural Gas has uncountable number of variations. Statistics of typical composition are taken from <*http://natural-gas.org/overview/background/*> accessed 9 February 2020.

[212] James Chen, 'Natural Gas Liquids – NGL' (*Investopedia*, 2020) <https://www.investopedia.com/terms/n/natural-gas-liquids.asp> accessed 9 February 2020

[213] 'About liquefied petroleum gas (LPG)' (*Health and Safety Executive*) <https://www.hse.gov.uk/gas/lpg/about.htm> accessed 25 August 2020.

However, NGLs such as LPG are flammable and prone to settle in basements and drains, due to the denser nature than air.[214] Based on these characteristics, the storage of NGLs require high pressure or cryogenic reservoirs and special transportation facilities equipped with the tanks designated for the NGLs. This incurs additional expenses; however, it is easily recouped by virtue of its widespread use.

The main indicator of a gas processing industry health and each single gas processing plant's profitability is a 'Fractionation Spread' (or 'Frac Spread'). The 'Frac Spread' is the difference between the profit gained from selling the pure NGLs and the cost of the Natural Gas, including NGLs as its part.[215] Essentially, this is the difference between what the NGL on its own is worth and what it is worth if sold at the price of natural gas. This matters for the gas processing plant, while the profit of the gas producer is calculated as a difference between the 'Frac Spread' and processing fee, plus the profit gained by the producer from selling the Natural Gas.[216] From that point, it is visible how the NGLs impact the economics of gas producing.

It is worth noting that the NGLs profitability is highly reliant on the gas plant technology used to fractionate them. Anna B. Keller outlined the following technologies:

- "Lean oil" plant NGL recoveries
- Refrigeration plants
- Cryogenic technology

Keller also noted that the least efficient is the first technology, since it recovers a small quantity of ethane and propane, asides other NGLs. The most efficient, but the most expensive to construct is cryogenic technology, since it is capable of recovering 100% of butane, propane and pentanes and up to 90% of ethane.[217]

(b) Gas Processing Safety

Another important aspect of the gas processing that was not covered in the Level 1 module is the safety of such operations. As a result of fractionation, the new substances of the extracted raw gas are produced, some of them are utilised during the process and thus it can lead to an unpleasant impact on the environment, as well as to human health.

It is a matter of health and safety regulations both of the Host Country and of the processing company itself. However, we will provide some key risks that should be considered:

- Risk of air pollution
- Risk of leakage

[214] ibid.

[215] John Jechura, 'Overview Gas & NGL processing' (*Colorado School of Mines*, 2019) <https://inside.mines.edu/~jjechura/GasProcessing/01_Introduction.pdf> accessed 9 February 2020.

[216] Anne B. Keller, 'NGL 101 – The Basics' (*Midstream Energy Group*, 2012) <https://www.eia.gov/conference/ngl_virtual/eia-ngl_workshop-anne-keller.pdf> accessed 9 February 2020.

[217] ibid

- Risk of explosion

The first risk would occur if the pipes or any other facilities do not provide a sufficient enclosure and thus the gases evaporate. It also happens because the excessive gases are burnt out during the processing. A solution to avoid such risk is to build cleaning facilities to catalyse such emissions.

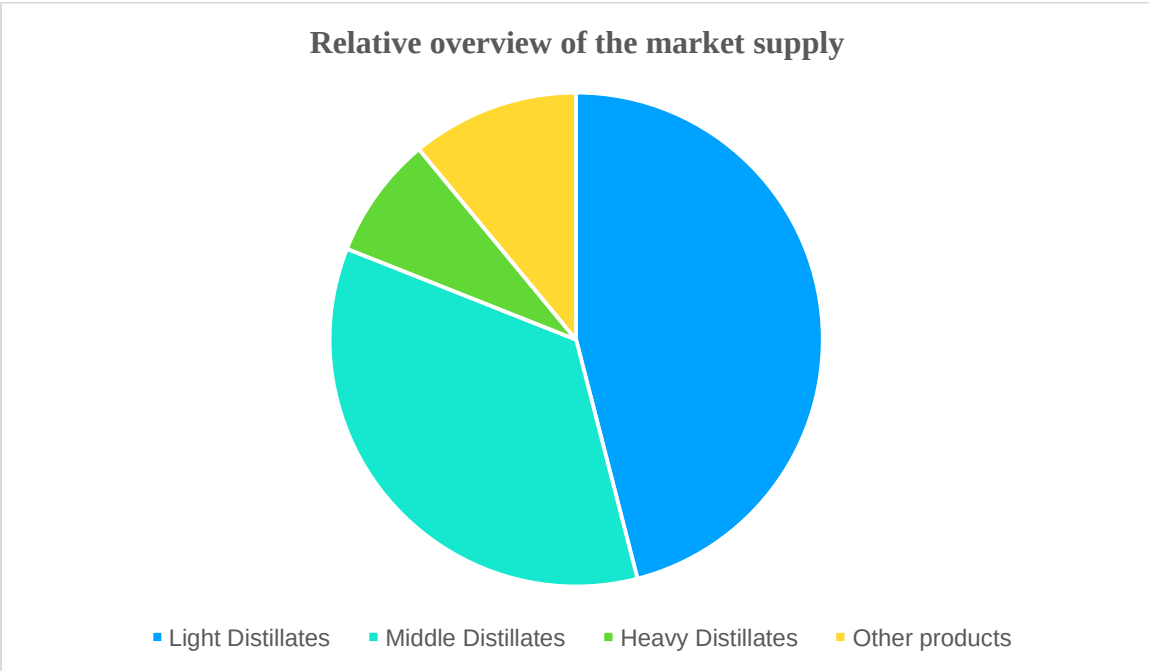
The risk of leakage is also a matter of correct enclosure. In evaluating what all these risks have in common, it is noteworthy that all of them presuppose compliance with efficient construction and building regulations. Consequently, it is incumbent on the HG to ensure such regulations are present, durable, practical, sustainable and enforceable, to protect HSE.

An additional point of importance is the provision of appropriate equipment for the employees working on the processing plant, that satisfy the health regulations. Additionally, each employee has to be trained in accordance with such HSE regulations in order to reduce the human factor risk.

2.2. Oil Refining

A detailed description of the oil refining process and its basic economics is contained in the Level 1 handbook. Therefore, for the Level 2 we will discuss more on the economics and provide information concerning HSE issues as in the previous paragraph.

(a) Refined oil products



As indicated in the illustration, the predominant share of the refined products on the market is given to gasoline as the most popular type of fuel for internal combustion engines.[218] Jet fuel and diesel fluids

[218] The pie chart was created with the reference to the U.S. Energy Information Administration reports, but it shows typical ratio of the oil products produced anywhere. U.S. Energy Information Administration Website <https://www.eia.gov/dnav/pet/pet_pnp_pct_dc_nus_pct_m.htm> accessed 9 February 2020.

hold the second position after gasoline as these are mainly used for commercial transport. Heavy distillates such as wax, asphalt and lubricants maintain the last position since they comprise the sediment after refining.

Similarly to the gas processing, the oil refinery's profitability is indicated by the 'Crack Spread', which is the difference between the costs of the crude oil and the refined end products.[219] The main concern for the refinery would be a change in the market price of the crude oil, positively or negatively, whilst the stability of prices is the relevant concern for the refined products. This constitutes a financial risk for the refining company. In order to mitigate risks, the refining company would seek to secure its remuneration by establishing a fixed price for its services, or it can look for the options of selling the Crack Spread. Typically, the refinery would arrange to purchase the crude and selling for the future,[220] so that it can remain unaffected by changes in market price. Although the refining company would lose the opportunity of making a windfall where market prices significantly increase in its favour, the benefit of fixed pricing is that it will avoid situations of loss where the market is negatively affected.

(b) Oil Refining Safety

As well as the gas processing plant, the oil refinery is considered to be an extremely hazardous object. Therefore, the regulations regarding health, safety and environmental matters would be applied in the same manner as for the processing plants. The two considerable risks associated with the refinery are the 'risk of ignition and explosion' and the contamination of the environment by fluids either negligently or with intention.

3. Storage of Oil and Gas

In the Level 1 module, readers would have become acquainted with the principles and methods of storage of oil and gas. Here, we will outline some general risks associated with the storage of oil and gas and provide solutions on how to minimise such risks. In general, the risks can be divided into three categories:

- Health and safety risks
- Environmental risks
- Economic risks

3.1. Gas Storage Risks

Natural Gas is usually stored in underground facilities, in particular: depleted reservoirs, salt caverns and aquifers.[221] The standard construction of such facility is: reservoir itself situated underground plus well. In case of the aquifer, the reservoir appears to be natural. The first that may affect the stability of

[219] ALSF Academy Oil and Gas Handbook Level 1 Chapter 5 'Midstream Oil and Gas' (2019).

[220] 'Energy Trading 101: The Crack Spread' <https://www.wallstreetoasis.com/forums/energy-trading-101-the-crack-spread> accessed 9 February 2020.

[221] 'Natural Gas Explained: Delivery and Storage of Natural Gas' (*EIA*, 2020) <https://www.eia.gov/energyexplained/natural-gas/delivery-and-storage.php> accessed 03 September 2020.

reservoir is a geological factor. For instance, subsidence of the ground, erosion, seismic activities, underground waters, that can destruct the concrete piers, and other means of land destruction. Another risk of underground storage is that gas migrates through the formation, so the company may lose some or large quantities of gas due to these natural reasons. Another considerable risk is from pressure deviations that may result in blowouts, which can destroy the storage facilities.

A method of risk mitigating is a thorough Risk Assessment prior to drilling the well down to the reservoir. Also, during the lifespan of the reservoir it would be recommended to constantly control the state of the reservoir by acquiring data from the well, seismic data and other information about the ground around the reservoir.[222] This is because the conditions of the reservoir are not static. The above-mentioned factors are the main issues to consider and may result in all three types of detriments listed.

3.2. Oil Storage Risks

Unlike the gas storage facilities, the oil storage tanks are less dependent on geological factors, unless situated underground. Main considerations in respect of storage risks will be given to the deviations of the pressure inside the storage tanks, level of the substance in the storage tank and the flow level to or from the storage tank.[223] These deviations may be caused for a list of reasons. For example, as Ibrahim and Syed noted, an increase of the crude level in the storage may be caused by "*expansion of oil in case of exposure to higher temperature*" and may result in "*crude oil leakage to the atmosphere, which may initiate the fire if any ignition source exists*".[224] This is a factor that should be controlled by the storage Operator.

As for the floating storage, thorough attention should be given to the measures preventing the sea pollution, since it causes substantial damage to the marine and this cannot be ceased immediately.

All in all, the main preventive measures for oil and gas storage will include, but will not be limited to:

- Conducting construction and building works considering the probabilities of future changes in the local onshore or offshore area;
- Complying with environmental regulations for constructing and building activities prudently, involving related technological decisions for each particular case;
- Train employees in respect of HSE matters, emphasising the importance of following relevant regulations;
- Exercise constant control over the operation of the storage, collecting the relevant data from the storage and seismic study.

[222] For more detailed information concerning the Risk Assessment it is highly recommended to read 'An appraisal of underground gas storage technologies and incidents, for the development of risk assessment methodology' prepared by the British Geological Survey for the Health and Safety Executive in 2008. Despite the fact that it contains a lot of British and American examples, it is worth reading for an integrated deep knowledge of the risks associated with operating soil and gas storage facilities.

[223] H.A. Ibrahim, H.S. Syed, 'Hazard Analysis of Crude Oil Storage Tank Farm' (2018) International Journal of ChemTech Research, Vol.11, No.11, pp.302-303.

[224] ibid.

4. Liquefied Natural Gas (LNG) vs. Pipeline Gas

In order to compare the LNG with the Natural Pipeline Gas, it is important to note that LNG is a derivative of the Natural Gas. LNG is gas that has been converted to liquid by intense cooling under pressure (-162ºC).[225] The cooling process reduces the volume of the gas to 1/600.[226] Upon arriving at its destination, LNG is returned back to its gaseous state through the process of re-gasification.[227]

LNG and Natural Gas require different methods of transportation, storage, process and value chains and etc. Thus, the following criteria has been chosen to reveal advantages and disadvantages of both types in comparison to each other:

1) Economic efficiency
2) Complexity of transportation
3) Complexity of storage
4) Time of returning the investment
5) Complexity of processing into an end product
6) Safety

4.1. Economic Efficiency

Considering this issue, the main factor affecting economic efficiency is the costs borne by the oil and gas company to produce the substance.

The production of Natural Gas involves exploration, drilling and other related activities, after which the gas is extracted through the wells, then distributed to the gas processing plant, where it is separated from gas liquids, and then it goes through the pipes to the end consumer. LNG was explored and pursued in order to satisfy the world's demand for Natural Gas. However, LNG aggregates more expenses to the Natural Gas production. After the gas is processed, it needs to be frozen via special cryogenic facilities. Refrigerators are not particularly cheap, additionally, the installation of those units on the barges/trucks/trains involves extra expenses. After the Natural Gas is liquefied and loaded into the tanks, it needs to be transported. This is usually done by tankers called 'LNG carriers' in large, onboard, super-cooled (cryogenic) tanks. LNG is also transported in smaller International Organisation for Standardization (ISO)-compliant containers that can be placed on ships and on trucks.'[228] This process also incurs additional expenses.

Despite these cost factors, the volume to liquid ratio of LNG (1/600th) is a significant advantage as it makes it possible to move large volumes of natural gas. Some other advantages are that LNG is non-

[225] 'Liquified Natural Gas' (*Shell Global*) <http://www.shell.com/energy-and-innovation/natural-gas/liquefied-natural-gas-lng.html> accessed 18 August 2020.

[226] ibid.

[227] Smith (n 1) 1067.

[228] 'Natural gas explained Liquified natural gas' (*EIA*, 2020) <https://www.eia.gov/energyexplained/natural-gas/liquefied-natural-gas.php> accessed 27 August 2020.

toxic, it will not ignite in its liquid state, and it is easier to store and transport. These factors offset, or at least balance, the transportation and production costs of LNG.

4.2. Complexity of transportation

As outlined above, Natural Gas initially moves from the well to the gas processing plant then it is transported through the pipes to the end consumer. The transport process is simply a matter of expanding the pipelines system or connecting one pipeline to another. Unlike Natural Gas transportation, the transportation of LNG involves more phases, more technologies and eventually, more costs. Despite these additional factors, LNG may, for certain locations, be easier to transport than natural gas.

4.3. Complexity of storage

This is the point where the LNG would relatively surpass the Natural Gas storage process. The liquids are less complex to store because there is no need to maintain pressure constantly in the reservoir. However, LNG can only be stored in cryogenic tanks, so there is the issue of maintaining low temperatures in the tank. This latter point notwithstanding, LNG remains easier to store than Natural Gas.

4.4. Time of monetising the asset

The asset is deemed to be monetised when it is sold to the customer. The time of monetising matters for the reason that the business needs to increase its volumes and plan for future expenses. LNG can be used as the end product, so that re-gasification issues are a matters for the LNG retailer to attend to. In this case, there is a time lag (albeit relatively short) between producing the LNG and selling it. In contrast, the monetisation of Natural Gas is quicker than LNG, as Natural Gas goes directly to the pipelines immediately after processing.

4.5. Complexity of processing into the end-product

To obtain the Natural Gas, it is enough only to separate it from the liquids (such as propane, butane, pentane) and then it is ready to be supplied. The processing of LNG requires additional stages: liquefying and re-gasification, and as such, LNG is plainly more complex to process.

4.6. Safety

Safety is the point where LNG has a clear advantage over Natural Gas, which is an obvious point given that the process was designed to raise the safety of storage and transportation of the Natural Gas. The LNG is not explosive, since it is not stored under pressure so the threat of blowout is nonexistent. The explosive Natural Gas may only appear in the atmosphere if there is a leakage of the Natural Gas.

5. Overview of Oil Pipelines and Relevant Agreements

In construction terms, an oil pipeline is similar to a gas pipeline, so it is unnecessary to comprehensively describe such technical aspects. More important is the discussion regarding agreements relevant to oil pipelines. There are several relevant agreements: Transportation Agreements for crude oil; Transportation Agreement for crude oil through cross-border pipelines, Preferential Pipeline Capacity Allocation Contracts; Pipeline Interconnection Agreement; Marine Lifting Agreements.

5.1. Transportation Agreements for Crude Oil

A Crude Oil Transportation Agreement (COTA) is similar to a Gas Transportation Agreement (GTA) in the sense of their usage of similar technologies and for the same purposes. Several differences may appear only in terms of specificity of each type of resource. It may be defined as an agreement under which the crude oil is transported to the designated destination by the special oil and gas transportation organization, carried out by another company or ordered by the State.[229] This may also be referred to as a Crude Oil Transportation Service Agreement, because the company may provide facilities and services for transportation of the crude.

a) Key considerations of Crude Oil Transportation Agreements

The key negotiations will be around the following terms:

- Tariff Rate
- Commencement Date and Term
- Quantity of Crude Oil
- Pipelines Capabilities
- Operational Modification, Additional Facilities and Capacity Expansion

Also, it is necessary to disclose that, depending on the purpose, Parties may negotiate on whether the Transporter will provide its own pipelines or will only provide the relevant transportation services.

The Transport Company is paid a sum of money called 'tariff'. Tariffs are usually determined by market prices; volume being transported and the flat rate that the Company established. The agreement will usually set out the dates when the payment is due, choose either lump sum or instalments basis (depending on the length of the contract and volume) and the consequences of non-payment.

For the transportation of crude oil, it is important to set the date when the transportation will be commenced and the relevant period during which the company performs such works. This matter is important because the Transporter will need to lay out the further service works required for the pipelines and to estimate costs of such transportation, evaluating the risks connected with the method and how these might change over the period of works to be undertaken. Ordinarily oil is transported within the agreed Quarterly time frame and the Parties will agree on the amount of oil that has to be transported during each Quarter (Quarterly Throughout Commitment).

The quantity of oil will be negotiated bearing in mind the Capabilities of the Pipelines. This is related to the matter of how much infrastructure will need to be built if the Transport Company's pipelines transports less crude oil than the Shipper (Oil Producer) requests to be transported within a certain time.

[229] A sample of this agreement available at <https://www.tap-ag.com/assets/07.reference_documents/english/Market%20Test/Draft%20Gas%20Transportation%20Agreement.pdf>;<https://www.sec.gov/Archives/edgar/data/868809/000119312505216982/dex101.htm> accessed 03 September 2020.

This situation would cause additional financial risks and necessitates the finding of solution in Operational Modification clauses, which establishes the possibility of a Transporter increasing the capability of the pipeline system in order to enhance the process of shipment. It may be completed after the request submitted to the Producer is reviewed and the Producer agrees to the terms of such modification.[230]

5.2. Transportation Agreements for Crude Oil through Cross-Border Pipelines

This type of agreement will address the same considerations (as noted above) between the Parties and specifies in terms of International Law and International Business matters only. The usual practice in so far as the transport of crude oil across borders is concerned, is that States will sign an agreement for cross-border transportation through which territories the pipeline is constructed. Such agreements mainly deal with representations of commitments to International Law principles, Treaties between the States etc.; health and safety standards; security; taxation matters.[231] As for the private entities and as was mentioned earlier in the manual, the key terms and provisions will be the same.

5.3. Preferential Pipeline Capacity Allocation Contracts (PPCAC)

This agreement is of particular importance for landlocked countries, for which access to pipelines determine the viability of a project.[232] Under the PPCAC, investors who hold their respective interests in the pipeline, allocate preferential capacity rights in order to secure an access to the pipeline. The investor may be either the oil and gas producer, or the transport company. The main considerations will be given to line-fill and ship-or-pay provisions.[233] Line-fill provisions are applicable to the situation were a volume of crude oil is needed to occupy the space in the pipeline;[234] this arrangement is deployed where there is more than one ownership interest in one single pipeline. Ship-or-pay in such contracts establish that the investor undertakes to pay for an amount of crude oil under the PPCAC, irrespective of the volume he has actually transported.[235] This is reminiscent of the 'Take or Pay' clause commonly used in long term gas sales agreements The justification for the Ship-or-pay provision is commercial certainty, based on the need of other users to plan for their usage of the pipeline, so the Parties consider how much each of them is capable of shipping through this pipeline.

5.4. Pipeline Interconnection Agreement

This agreement regulates relations between Parties who wish to connect two separate pipelines in order to create a multi-ownership pipeline, leaving behind their respective interests in what the situation was prior to the agreement. The main considerations in this type of agreement is the safety of the con-

[230] For more details: Form of Transportation Services Agreement (Crude Oil Pipeline Systems) <https://www.sec.gov/Archives/edgar/data/1552000/000119312512385147/d368024dex1010.htm> accessed 7 February 2020.

[231] For example see: Energy Bilaterals, 'Transportation by Pipeline' (Oil&Gas) <http://www.energybilaterals.org/agreements/table?category=1> accessed 7 February 2020.

[232] 'Aggregate Capacities Exceeding 20 MMTPA and 1 BCMA' (*FSU Law Ltd*) <https://www.fsulaw.net/pipelines> accessed 7 February 2020.

[233] ibid

[234] 'Definition of Linefill' (Law *Insider*) <https://www.lawinsider.com/dictionary/linefill> accessed: 7 February 2020.

[235]Source: Pro-Z <https://www.proz.com/kudoz/english-to-french/petroleum-eng-sci/1332139-ship-or-pay.html> accessed 7 February 2020.

nection process and the integrity of the technical specifications of each pipeline, as pipelines are expected to function properly together. Thus, the companies will allocate risk between themselves for the connection activities they have undertaken and for the consequences that arise from the same.[236]

5.5. Marine Lifting Agreement

These agreements regulate relations between the Parties in respect of the lifting of crude oil from marine terminals to further transportation processes. The following areas ought to be key consideration: liabilities, risks related to timing and other standard provisions for the 'lifting' and further transportation processes. However, one of the most challenging issues that may arise is when lifting the crude oil from hostile places like an Arctic Ocean marine terminal during the winter period. Where in such circumstances the oil tankers do not arrive on time, for whatever reason, the crude will not be lifted and must instead be put into pipelines until the ice melts. This delay may give rise to liability on the part of the transporting company, where the delay is caused by a reason not excused in the contract.

6. Storage Agreements

The storage of oil and gas finalises the midstream phase.[237] Agreements for both oil and gas are designated to regulate issues related to the storage process. The agreement for storage implies a lease of the particular piece of land, hence such agreements are called 'Storage Leasing Agreements'. The Parties are commonly known as a lessor (often represented by a State since it might own the land) and lessee (oil and gas company/producer. There is also a third party called 'storage Operator' who executes all maintenance requirements, balancing and service activities in respect of the storage and is remunerated by the lessee (storage owner). After the land is leased, the lessee is obliged to build oil/gas storage facilities, so that the processes of the building and construction works will also be regulated by the agreement; which is needed given that the storage facilities also need to meet environmental and technical safety requirements.[238]

Generally, the key considerations in oil storage agreements are the following: tariffs, fees, storage commitments,[239] environment, health and safety provisions, security over reservoirs, decommissioning, default and other typical contractual provisions.

Tariffs and fees are established by the State as it leases the land to the storage Operator. These tariffs and fees depend on the size of the land leased, size of the storage, actual quantity stored and pipeline facilities. Payments are made monthly. Storage commitments provision shall cover all the activities the storage Operator has to complete during the lifetime of the storage. The State would normally control these commitments through submitted reports by the Operator on exercised works.

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[236] Interconnect Agreement, Section VIII. INDEMNITY <https://www.atmosenergy.com/sites/default/files/interconnect_agreement.pdf> accessed 26 August 2020.

[237] For a further discussion see, Martyn R. David, *Oil and Gas Infrastructure and Midstream Agreements: With Precedents* (Langham Legal 1999); Alfonso Colombano and Paul Crnkovic, *Oil & Gas Company Analysis: Upstream, Midstream and Downstream* (Create space Independent Pub 2015).

[238] ibid.

[239] James English, '7 Natural Gas Agreements in 10 Minutes' <https://www.linkedin.com/pulse/7-natural-gas-industry-agreements-10-minutes-james-english> accessed 16 November 2019.

Issues may arise when the storage owner needs to construct pipelines in order to connect to already existing pipeline systems or to build independent long-distance pipelines. Bearing in mind the need to acquire subsurface and real property rights, and further acquisition of easements to the pipelines and other costs, lead to significant tariff growth and increased costs of the minerals' storage facility.[240] This creates challenges as the storage owner will inevitably seek to remunerate such expenses and, in turn, the increased prices may cause prospective customers to look for alternatives. The solution maybe to look for better options whilst at the same time securing a reservoir place and the storage company to operate, minimising or avoiding these additional costs before they occur.

When the lifetime of a storage project comes to an end, the major issue will be decommissioning. In most jurisdictions, the designated 'owner' of facilities shall be responsible for decommissioning activities. Therefore, it is the duty of such parties to create a security fund for future decommissioning activities. If the decommissioning has not been catered for, it will be for the State and the company to reached a negotiated solution.

7. The Gathering and Processing Agreement

The gathering and processing stage of oil and gas is another finishing milestone of the midstream process. Through this stage, extracted minerals are transformed into a marketable product to be offered to the consumer, and thereby increasing the value of the asset. This type of agreement is similar to the Crude Oil/Gas Transportation Agreement, in that it serves to regulate the issues related to the transportation of the minerals through small-diameter pipelines to fractionation (processing/refining). This is the first part of that agreement, whilst the second part consists of providing fractionation services.[241] This type of operation is conducted by the separate gathering and processing midstream company (gathering and processing Operator). This operator gains remuneration for the services provided inclusive of being responsible for the minerals it receives. Costs of constructing the refining/processing facilities are usually covered by the investors.

8. Gas Sale Agreement (GSA)

The GSA is a standard instrument for selling and purchasing quantities of natural gas through the pipeline. It can be defined as a contractual arrangement between the Seller and the Buyer under which the Seller transfers and the Buyer takes and pays for a certain quantity of natural gas.

Parties to the GSA are usually:

- Seller (typically oil and gas production company)
- Buyer (any person or entity, including agents)
- Third parties (transporters, end users, other)

Next, we will provide a brief review of main issues to be considered in the GSA.

[240] ibid.

[241] ibid.

8.1. Key terms and provisions of GSAs

The GSA is traditionally negotiated around these terms:

- Title and Risk Transfer
- Quantity to be Supplied
- Make-Up provisions
- Take-or-Pay provisions
- Carry-forward provisions

8.2. Title and Risk Transfer

The transfer of Title and Risk is usually completed upon a delivery of a product.[242] Leonard Harvey also outlined the "*tiered transfer of risk and liabilities*" in the event that the Shipper is involved in the transaction. In the case of the latter, the Purchaser will bear the risk of loss after the Seller transfers the gas to the Shipper.

8.3. Quantity to be Supplied

The GSA establishes the maximum amount of natural gas that the Seller is obliged to provide and the maximum that the Buyer can request. For the purposes of the GSA, it is called 'Maximum Daily Quantity' (MDQ). Also, the GSA establishes the Annual Contract Quantity (ACQ). The ACQ is the agreed quantity that the buyer may be required to take delivery of during the course of the contract year.[243] This will typically be flexible and subject to permitted adjustments.[244] The adjusted annual contract quantity (AACQ) represents the final quantities which the buyer is expected to take delivery of. The Annual Minimum Quantity represents the volume of gas which the Buyer is obliged to take or pay for.[245]

In relation to increasing or decreasing the quantity to be supplied, the general rule is that the Buyer undertakes not to request quantities in excess of the MDQ. However, the Buyer may request the decrease of quantity by giving a prior notice to the Seller. Such an arrangement could be solved by way of negotiating and signing a new agreement.

8.4. Take-or-Pay Provision

A Take-or-Pay provision is one pursuant to which a buyer of gas agrees to pay for the minimum contractual quantities at specified times, whether it takes delivery of such quantities or not. This guarantees the buyer a steady and flexible supply, whilst the seller is guaranteed of a steady and stable income stream to meet its financing obligations under the contract, as well as any loan payments. An example of a Take-or-Pay provision is contained in the AIPN Model Gas Sales Agreement 2006.[246]

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[242] Leonard A. Harvey, 'Gas Sales Agreements: Key Legal and Contractual Aspects' (London Metropolitan University 2019) <https://www.academia.edu/40379752/KEY_LEGAL_AND_CONTRACTUAL_ASPECTS_GAS_SALES_AGREEMENTS> accessed 8 February 2020.

[243] Peter Roberts, *Petroleum Contracts: English Law and Practice* (Oxford University Press 2013) 180.

[244] An example of this is a force majeure event or the application of a carry forward provision (this reduces the ACQ).

[245]Ashok K. Bansal, 'Understanding Natural Gas Sales & Purchase Contracts and Principal Contractual Terms' <https://www.linkedin.com/pulse/understanding-natural-gas-sales-purchase-contracts-principal-bansal> accessed 8 February 2020.

[246] Smith (n 1) 1056.

Article 1.1.1 - "Take or Pay Quantity ("TOPQ") means for each Contract Year during the Delivery Period a Quantity of Gas equal to [—-] percent (—%) of the Adjusted Annual Contract Quantity for that Contract Year".

Article 12.6- "In each Contract Year Buyer shall be obligated to take and pay for, or to pay for it not taken, a quantity of gas at least equal to the Take-or-Pay Quantity".

Take-or-pay provisions should not be confused with Take-and-Pay provision. In the latter the buyer's obligation is both to take and pay, rather than the former provision where the buyer has the option of taking or paying. The failure of the Take-and-Pay buyer to take and pay constitutes a breach of contract.

8.5. Make-up clause

The right to make-up gas is essentially the right of the buyer to reclaim the volumes of gas not 'taken', but for which it has made a Take-or-Pay payment. There is typically a time period within which the buyer can claim its make-up gas.

8.6. Carry-forward provision

This is a provision that applies where the Buyer has taken excessive gas volumes in previous years. It entitles the Buyer to reduce Annual Minimum Quantity in a Contract Year.

9. LNG SPAs

This agreement appears to be a standard through which LNG may be sold or purchased. The definition will be the same as the GSA, but with replacement of the natural gas by the LNG. All in all, they are similar in many provisions and contractual solutions. However, it is essential to outline specific characteristics of the LNG SPA in order to provide a more comprehensive distinction between this arrangement and the GSA equivalent. This is beyond a mere contractual adjustment.

LNG's physical characteristics demand that additional specialist methods of transportation are deployed and from the outset it is important to appreciate this distinguishing feature. Usually, LNG is transported by ships, railway transport or trucks, using special cooling reservoirs. Typically, the transaction is on an Incoterms basis; and operational provisions concerning the delivery and standards of measurement (of the LNG) are also put in place.[247]

The Review on Potential Standardisation of LNG SPAs outlined other factors that affects Buyer-Seller relations and specifically mentioned that these factors are "*fundamental in shaping the terms and conditions of such relationship*".[248] These factors include, but are not limited to:

- Political factors (decisions involving generation of power from other sources to the LNG)
- Market factors (prices of alternative fuels)
- Usage purpose factors (for use in any load power generation)

[247] Review on Potential Standardisation of LNG Sale and Purchase Agreements (Energy Charter Secretariat 2017) <https://www.energycharter.org/fileadmin/DocumentsMedia/Other_Publications/20171115-Final_LNG_Report.pdf> accessed 18 September 2020.

[248] ibid.

9.1. Key considerations of LNG SPA

The LNG SPA will ordinarily regulate the following issues:

- Price Review
- Profit Sharing Mechanism
- Take-or-Pay obligation
- Make-up rights

9.2. Price Review Clause

This clause is helpful both for the Buyers and the Sellers when they engage in a long-term SPA. The selected and agreed price review mechanisms would allow the Parties to adjust the pricing in line with market changes and conduct risk allocation. However, it is worth noting that such mechanisms will not always meet the interests of both Parties, thus they are not always able to provide thorough and equal risk allocation.

9.3. Profit Sharing Mechanism

As mentioned in the Review on Potential Standardisation of LNG SPAs, profit sharing issues "*are closely linked to destination flexibility and cargo diversion provisions under LNG SPAs, and will need to be considered in that context*".[249] This highlights that the delivery processes involved in LNG projects greatly influence the potential reward when it comes to its sale to end users.

Key Chapter Points

As discussed, business activities involved in the midstream oil and gas are complex and challenging. A clear understanding of environmental, economic and health and safety risks is beneficial for all Parties throughout the course of oil and operations. As for the contractual instruments discussed, we highly encourage further study of these agreements. This chapter was designed to provide a brief overview and working knowledge of the midstream industry risks and agreements related to this stage of the oil and gas value chain. Lastly, given to the increased demand of LNG and its effects on global gas markets particular attention should be paid to agreements that focus on LNG. Hopefully, the information provided will spark a deeper interest in some of the agreements that you will surely encounter in this industry. In the next chapter, we will move on to a discussion of the balancing interests between the oil and gas industry, society and environment.

[249] ibid.

This chapter explores the interconnection between the petroleum industry, environmental protection and social impacts. In doing so, it describes the so-called "resource curse" theory and corporate social responsibility issues, together with the main features of Environmental Social Impact Assessments (ESIA), which aim to monitor the processes in the oil and gas industry and set expectations for the industry.

This chapter also describes some of the complexities related to oil production, which might lead to accidents. In addition, it describes the main types of oil and gas emergencies and the most substantive reasons for them. Finally, the chapter describes the most significant negative impacts of oil and gas accidents and potential liabilities of parties involved in the oil and gas industry. To accomplish this, the chapter will discuss the main forms of liability and relevant regulations that can assign liability to certain actions in the oil and gas industry.

1. "The Resource Curse"

Natural resources are not equally spread among countries. Instead, they are often geographically concentrated in a few specific areas. This explains the reason why natural resources sometimes show a "disproportionate share of economic production and exports in certain countries".[250] For example, oil and gas rich economies often represent high ratios of natural resources in comparison to Gross Domestic Product (GDP).[251] It is noted in legal doctrine, that being wealthy of resources does not always result in sustained economic development. Rather, it can lead to the opposite effect – a phenomenon commonly referred to as the "paradox of plenty" or the "resource curse hypothesis".[252]

A long running discussion is whether natural resources are a "blessing" or a "curse" for economic development.[253] Some scholars dealing with this problem have insisted that natural abundance is a "key to countries' comparative advantage and critical to economic growth",[254] whereas others have maintained that "dependency on natural resource exports can trap countries in a state of under-development".[255]

[250] World Trade Organization (WTO), World Trade Report 2010: Trade in natural resources, <https://www.wto.org/english/res_e/booksp_e/anrep_e/world_trade_report10_e.pdf> accessed 1 November 2019.

[251] ibid.

[252] ibid; Anthony J. Venables, 'Using Natural Resources for Development: Why Has It Proven So Difficult?' (2016) < https://www.aeaweb.org/articles?id=10.1257/jep.30.1.161> accessed 30 October 2019.

[253] WTO (n 250).

[254] Haber, Stephen; Menaldo, Victor, 'Natural Resources in Latin America: Neither Curse Nor Blessing' < https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1625504> accessed 28 November 2019; Jeffrey A. Frankel, 'The Natural Resource Curse: A Survey' (NBER Working Paper No. 15836, Issued March 2010) <https://www.nber.org/papers/w15836> accessed 03 September 2020. See also: Natural Resource Governance Institute, 'The Resource Curse: The Political and Economic Challenges of Natural Resource Wealth' (March 2015) <https://resourcegovernance.org/sites/default/files/nrgi_Resource-Curse.pdf> accessed 03 September 2020.

[255] ibid.

The ownership of either oil, or gas, or any other natural resources does not necessarily result in economic success.[256] For instance, some countries are rich in oil and gas while a majority of their citizens continue to experience both low income and quality of life.

The idea that resources might be more of an economic curse than a blessing gained momentum in the 1950s and 1960s following the economic problems of low and middle-income countries.[257] The term "resource curse" was likely to be first used by Richard Auty in 1993 to describe how countries, which are wealthy in natural resources, were unable to "*harness that wealth to improve their economies and how these countries had lower economic growth than countries without plentiful natural resources*".[258] An influential study by Jeffrey Sachs and Andrew Warner found a direct connection between natural resource wealth on the one side and poor economic growth on the other.[259] Sachs and Warner summarised and extended previous research showing evidence that "*countries with great natural resource wealth tend to grow more slowly than resource-poor countries*".[260] They concluded that their result is not easily explained by other variables, or by alternative ways to measure resource abundance. Their paper claims that there is "*little direct evidence that omitted geographical or climate variables explain the curse, or that there is a bias in their estimates resulting from some other unobserved growth deterrent*".[261]

In recent years, different approaches dealing with the concept of the resource curse have increasingly turned into research to find out why some resource-rich countries succeed and why others do not, in contrast to simply investigating the economic effects of such resources.[262] One such research makes a proposal that factors such as, the way in which income from resource realisation is spent, government system, type of resources and the period in which industrialisation took place in a particular country, can be used to explain successes and failures.[263] Generally, oil and gas abundance differ from other types of wealth since these kinds of products are very specific. Petroleum resources are characterised by their "*large upfront costs, lengthy production, scale (sometimes referred to as large rents), price and production volatility, non-renewable nature",* etc.[264]

At the same time, it seems obvious that the resource curse is directly connected with and has a great impact on the economy, including such economic effects and spheres as revenue volatility, enclave effects, human resources, incomes and employment, trade-able sectors and the so-called "Dutch disease".

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[256] Jeffrey A. Frankel, 'The Natural Resource Curse: A Survey' (NBER Working Paper No. 15836, Issued March 2010) <https://www.nber.org/papers/w15836> accessed 22 October 2019.

[257] Ross, Michael L., "The Political Economy of the Resource Curse' World Politics. 51 (2) <https://www.cambridge.org/core/journals/world-politics/article/political-economy-of-theresourcecurse/EBEA5E178E7534C4BA38EE23D25322E0> accessed 25 October 2019.

[258] Richard M. Auty, 'Economic Development and the Resource Curse Thesis', (1993)< https://link.springer.com/chapter/10.1007/978-1-349-13460-1_4> accessed 22 October 2019.

[259] Sachs, Jeffrey; Warner, Andrew, 'Natural Resource Abundance and Economic Growth'(1998) NBER Working Paper 5398 < https://www.nber.org/papers/w5398.pdf> accessed 25 October 2019.

[260] ibid.

[261] ibid.

[262] T. Ragnar, "Why do some resource-abundant countries succeed while others do not?', (2009), Oxford Review of Economic Policy, 25 (2).

[263] ibid.

[264] Natural Resource Governance Institute, *The Political and Economic Challenges of Natural Resource Wealth*, (2015) < https://resourcegovernance.org/sites/default/files/nrgi_Resource-Curse.pdf> accessed 22 October 2019.

The "Dutch disease" is an economic tendency concerning de-industrialisation, which refers to an increase in revenues from natural resources that can de-industrialise a nation's economy by raising the real exchange rate and, as a result, lead to the manufacturing sector being less competitive.[265]

De-industrialisation following natural resources development can be of two major types: direct and indirect.[266] Direct de-industrialisation, or "factor movement effect", refers to the shift in production in relation to the natural resources area. In an economy with three sectors, including natural resources, manufacturing and a sector producing non-traded goods, the prevailing natural resources sector will withdraw factor inputs from the rest of the economy. As a result, this situation leads to an extra demand for non-tradable goods. Hence, the relative price of non-traded goods increases.[267] If the "*economy is small and the price of traded goods is determined in world markets, this is equivalent to an appreciation of the real exchange rate, which makes the manufacturing sector less competitive*".[268]

Indirect de-industrialisation, or the "spending effect", refers to the idea that *"additional spending caused by the increase in natural resource revenues results in a further appreciation of the real exchange rate*". In other words, the additional revenue obtained from a resource exports boom raises domestic income as well as the internal demand for all goods. Additionally, since the price of certain tradable goods is determined on the world markets, the additional spending entails the relative price of non-tradable goods. This results in a further appreciation of the real exchange rate.[269]

Dutch Disease becomes a problem if a decreasing manufacturing sector is characterised by positive raises in the rest of the economy. Krugman considers the case in which the manufacturing sector productivity increases with production (learning by-doing).[270] In brief terms, a natural resource boom raises the wage in the booming home economy when compared to the global economy. Since the home country's increase in relative wage increases the competitiveness of the manufacturing sector, the production of some goods in this sector moves abroad to gain competitive advantages. When this happens, the idea of learning by doing is lost. Therefore, the home country's relative productivity worsens in those areas over time, thus when the resource boom ends, market share and relative wage will have been permanently reduced through this loss of production.[271]

Nevertheless, the claim that resource-rich countries grow at a slower pace in comparison with countries with lack of resources has been recently challenged. The validity of previous tests of the resource curse hypothesis has been questioned. These are based on doubts concerning the measures of resource abundance, the failure to take into account additional factors that are linked with resource abundance and the failure to assess the impact of resource depletion over the sample period.[272]

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[265] WTO (n 250).

[266] ibid.

[267] ibid.

[268] ibid.

[269] ibid.

[270] Krugman, P., 'Running out of planet to exploit', The New York Times, Online version, 21/4/2008.

[271] ibid.

[272] Jeffrey A. Frankel, 'The Natural Resource Curse: A Survey', Harvard Kennedy school, (2010) < https://heep.hks.harvard.edu/files/heep/files/dp21_frankel.pdf> accessed 22 October 2019.

The first critical point from these studies deals with the question of how sensitive the resource curse is to the measurement of resource abundance. Researchers Lederman D. and Maloney W. F. used net natural resource exports per worker to measure resource abundance, finding that it has a positive effect on growth.[273] Any negative impact on growth relates to the high export concentration that is typical of resource exporters.[274]

Apart from this, G. Davis [275] and M. Alexeev together with R. Conrad[276] noted that, even if the existing empirical literature is correct, it is possible that a large resource endowment results in high growth rates in the early stages of extraction and slower growth rates as depletion sets in. G. Davis shows that after taking changes in the level of resource production over the sample period into account, the resource curse disappears, that is: "*economies with shrinking minerals-sector output saw slower growth, while those with increasing mineral output grew faster*".[277]

Similarly, the sceptics also cite examples where successful institutions and industrialisation went hand in hand with rapid development of mineral resources. For instance, cases in which oil and gas-rich countries were able to develop their economy in an effective manner as part of strong economy-wide growth include: the United States during its pre-war industrialisation period, Venezuela from the 1920s to the 1970s, Australia since the 1960s, Norway since its oil discoveries of 1969, Chile since adoption of a new mining code in 1983, Peru since a privatisation programme in 1992, and Brazil since the lifting of restrictions on private participation in the oil and gas industry in 1995.[278] Examples of countries that were equally well-endowed geologically, but that failed to develop their natural resources efficiently include Chile and Australia before World War I and Venezuela since the 1980s.[279]

Taking this idea further, from the stages of development, resource-shifts play a significant role in the development process. First, countries start as the primary producers, then resources are shifted into manufacturing sectors and finally, resources are transferred to service and creative sectors activities that create outputs with the high-income demand.[280] Additionally, most developed countries are characterised by service and creative activities. It is stated that countries grow in their economy as the resources shift into manufacturing sector activities.[281] Also, Rostow reveals that there are certain conditions which must be met before countries move from the stages of development, namely, prime sectors revolution, investment in infrastructure, the development of the leading sector in the economy, saving and an institutional openness to investment.[282] In other words, dependence on natural resources can be avoided by diversifying economic activities.

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[273] Lederman, D. and Maloney, W. F., *Trade structure and growth*, in Lederman, D. and Maloney, W.F. (eds), Natural Resources: Neither Curse nor Destiny, Palo Alto, CA and Washington, DC: Stanford University Press and The World Bank.

[274] ibid.

[275] Davis, G., *Trade in mineral resources*, (2009), Geneva: WTO, Background paper for World Trade Report 2010.

[276] Alexeev, M. and Conrad, R., 'The elusive curse of oil'(2009), The Review of Economics and Statistics 91(3): 586-598.

[277] Davis, G. (n 275).

[278]Jeffrey A. Frankel, (n 272).

[279] ibid.

[280] Allan G. B. Fisher, 'Production, primary, secondary and tertiary, (1939), Economic Record, vol. 15, no. 1, pp. 24-38.

[281] Kaldor, 'Strategic factors in economic development', New York State School of Industrial and Labor Relations, Cornell University, New York (1967).

[282] W.W. Rostow, 'The stages of economic growth', The Economic History Review, vol. 12, no. 1, pp. 1-16. (1959).

The resource curse can be prevented by careful allocation of resource revenues. Investment in human and physical forces are positively connected with economic development and stability.[283] Therefore, diversification of resource usage can be a solution regarding saving and investment in public goods, for example, infrastructure, education and health, and industrialisation in the long term. However, being rich from "natural resource rent" has made nations underestimate the long-term benefit of education. Good quality education will have a positive impact on labour productivity, and will lead to economic growth, based on an empirical survey of cross-country evidence in the OECD countries.[284]

In conclusion, the empirical literature does not reach a consensus on whether natural resource abundance leads to slower or faster growth. It is fair to say that countries with oil and gas wealth will not necessarily achieve worse performance than those without but they do have valuable resources to be explored. Few people would think that a country with oil or other natural resources would be better off without them or by refraining from developing them. Based on the available research and evidence, resource-rich countries may or may not succeed. It will depend on various factors, such as politics, legal regime, economic policy, government's ability to reasonably manage the natural resources, climate change, amongst others.

2. Oil & Gas Industry and Environment

The exploration and development of oil and gas is a priority for the governments of emerging economies, due to the fact that it is a source of foreign direct income, a source of taxation revenue and employment, and offers the opportunity for the transfer of technology from developed countries to developing ones.[285] However, oil and gas production involves and creates a high risk of the destruction of the environment. The main upstream phases that may be harmful to the environment are the (i) exploratory drilling stage, (ii) development stage (iii) production stage, and (iv) the decommissioning and rehabilitation stage.[286]

It is not only government, but also the aim of other stakeholders to ensure that oil and gas processes are as far as is possible, least harmful to the environment within reasonable boundaries; and after the oil and gas project comes to an end, the decommissioning procedures are able to return the environment to its natural state or at least to reasonably minimise damage.[287] This has led to academics, practicing lawyers and human rights and environmental activists for transnational oil and gas companies to voluntarily adopt best modern practices.[288]

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[283] T.Gylfason, 'Natural resources and economic growth: From dependence to diversification', Economic liberalization and integration policy, (2006) <http://link.springer.com/content/pdf/10.1007/3-540-31183-1_10.pdf> accessed 23 November 2019.

[284] J. Temple, 'Growth effects of education and social capital in the OECD countries: Historical Social Research', Historische Sozialforschung, vol. 27, no. 4 (102), pp. 5-46, (2002).

[285] Organisation for Economic Co-Operation and Development, Overview 'Foreign Direct Investment for Development' (2002) < https://www.oecd.org/investment/investmentfordevelopment/1959815.pdf> accessed 25 October 2019.

[286] Arthur Bainomugisha, Hope Kivengyere and Benson Tusasirwe, 'Escaping the oil curse and making poverty history; A Review of the Oil and Gas Policy and Legal Framework for Uganda', ACODE Policy Research Series, No. 20, 2006.

[287] Esteves, A. M., Barclay, M., 'Enhancing the benefits of local content: integrating social and economic impact assessment into procurement strategies', Impact Assessment and Project Appraisal, (2011).

[288] American Petroleum Institute, *Environmental design considerations for petroleum refining processing units*, API Publication, 311, (1993).

In order to determine environmental concerns of any industry, it is important to clearly understand how such industry works: its operational activities, the type of materials and equipment used, protection measures, and the state of the environment surrounding its facilities. The petroleum industry involves three major sectors: upstream, midstream and downstream (some elements of downstream could be considered part of a midstream sector).[289] The upstream sector deals with exploration and production of crude oil and gas, while the midstream and downstream sector focuses on transportation, processing of crude oil and gas, generating petroleum products, and managing their distribution and marketing.[290] During those activities, various materials and chemical additives, as well as equipment and processes are being used. Consequently, numerous environmental issues are likely to arise during the whole petroleum cycle, especially at the Exploration and Production (E&P) phase.[291]

The production of oil and gas has a local and a global impact. Gas flaring from oil wells, leading to CO2 emissions or to the extinction of fauna and flora, are examples of a global environmental effect.[292] Examples include: (1) the lighting effect of gas flaring and toxic materials burned and dumped in the Nigerian River Delta and (2) spills from offshore petroleum production.[293] As for the local impact on environment, it is "more intense and immediate". Example is the reduction of local fishing stock, for instance, Louisiana crabs.[294] Most recently on 25 July 2020, more than 1,000 tonnes of fuel leaked out of a ship and into the lagoon in Mauritius.[295] On 7 August 2020, nearly two weeks after the shipwreck, the Mauritian government declared the incident a national emergency. There is expected to be an adverse effect on the Mauritian ecosystem. The Mauritian marine environment is home to 1,700 species including around 800 types of fish, 17 kinds of marine mammals and two species of turtles, according to the UN Convention on Biological Diversity. On 26th August 2020, at least 27 dolphins were found dead on the shores of the island of Mauritius and though the cause of death is yet to be confirmed, it is suspected to be the spill.[296]

These adverse impacts are typically produced either during daily operations, or as a result of the modification of such activities, or by accidental releases. Common environmental concerns/impacts associated with this industry can be separated into the following groups:[297]

- Air emission of gases and particulates, such as volatile organic compounds (VOC), hydrocarbons (HC), carbon monoxides (CO), and carbon dioxides (CO2). The impacts of these gases

[289] Adam Muspratt, Oil & Gas iQ, 'Introduction to Oil and Gas Industry', (2019), https://www.oilandgasiq.com/strategy-management-and-information/articles/oil-gas-industry-an-introduction accessed 25 November 2019.

[290] ibid.

[291]Giorgio Brosio, Juan Pablo Jimenez, 'Intergovernmental Interactions between Taxation of Oil and Gas and Environmental Protection', EuroEconomica 5(31)/2012. S. Vinogradov, "Environmental protection in the petroleum industry", Hydrocarbons: economics, policies and legislation, Volume IV.

[292]ibid.

[293] ibid

[294] ibid.

[295] BBC News, Why the Mauritius oil spill is so serious < https://www.bbc.com/news/world-africa-53754751 accessed 30 August 2020.

[296] CBC News, 38 dolphins found dead after massive oil spill on island of Mauritius< https://www.cbsnews.com/news/mauritius-oil-spill-27-dolphins-found-dead/> accessed 30 August 2020.

[297] ibid.

can vary from local effects (as in the case of CO and VOC) to global warming effects (as in the case of CO2 and N2O);[298]

- Industrial wastewater discharges, which can result in the release of constituents, such as hydrocarbons, caustics, phenol, ammonia, and metals into the environment. This discharged wastewater can impact nearby surface and groundwater quality and surrounding marine environment, if not treated properly prior to disposal;[299]

- Waste generations, such as tank bottom sludge, oily wastes, and spent catalysts. Some of these wastes are hazardous, especially those containing hydrocarbons and heavy metals, and require special management and disposal;[300]

- Noise - During oil and gas development, noise disturbances associated with aircraft, bulk vessels and drilling operational activities are likely to impact negatively on the ecosystem.[301] This may arise from prospecting and survey activities already mentioned above. At certain levels, noise affects the functions of marine organisms. Fish and marine mammals, including whales and dolphins, are particularly affected by sound elevation because of their dependence on sound for reproduction, feeding, and avoiding hazards such as predators and navigation.[302] Some other possible impacts of noise from oil and gas operations include reduced growth, impaired hearing and stress.[303]

- Accidental releases, such as oil spills, sudden product releases, vapour releases or product leaks. Those releases can lead to air, water, or/and soil contamination, if not controlled promptly and effectively.

In spite of the fact that the petroleum industry basically entails quite similar risks and concerns associated with the environment, the ultimate impacts on the environment can vary significantly.[304] It depends on several factors, such as facility size and complexity of operations, environmentally sensitive areas, level of environmental protection at the facility, environmental regulatory requirements at the country of operation etc.[305] Thus, environmental priorities for environmental protection can also vary from one facility to another. In fact, when setting up the environmental priorities, each facility needs to establish its own priorities in order to ensure it is in compliance with the company's (and the Host State's) environmental policy and objectives.[306]

[298] S. Vinogradov, 'Environmental protection in the petroleum industry', Hydrocarbons: economics, policies and legislation, Volume IV.

[299] ibid. For a further discussion see, IPIECE, 'Petroleum refinery waste management and minimization: An IPIECA Good Practice Guide' (Operations Good Practice Series 2014) <https://www.extractiveshub.org/servefile/getFile/id/2843> accessed 04 September 2020.

[300] ibid.

[301] For a further discussion see, Chao Peng, Xinguo Zhao, and Guangxu Liu, 'Noise in the Sea and Its Impacts on Marine Organisms' 12 (10) Int J Environ Res Public Health 12304–12323 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4626970/> accessed 04 September 2020.

[302] ibid.

[303] Environmental and Social Challenges of Oil and Gas Exploration in Kenya <https://www.hse.co.ke/articles/environment/environmental-and-social-challenges-of-oil-and-gas-exploration-in-kenya/> accessed 20 November 2019.

[304] D.F. Boesche, N.N. Rabalais, 'Long-term environmental effects of offshore oil and gas development', London, Elsevier, (1987).

[305] S. Vinogradov, (n 298).

[306] ibid.

Management tools used in the petroleum industry in order to prevent causing harm to the environment generally refer to the different types of environmental assessment.[307] Environmental assessment is defined "*as any review or study which is aimed at determining the environmental implications of any activity*".[308] Such a review can be wide ranging, encompassing the activities of an entire operation, such as an oil platform, petroleum refinery, or fuel terminal, or it can be highly focused, concentrating on a single process or operation, or piece of equipment.[309]

Environmental assessment as a common management instrument includes *inter alia* the following measures:[310]

- compliance review;
- environmental management system (EMS);
- environmental site assessments (ESAs);
- environmental impact assessments (EIAs);
- decision and risk analysis (D&RA)

Summing up, awareness of the importance of environmental issues has become increasingly central to the thinking of the oil industry stakeholders and regulators in the last decades. In order to achieve success and development in this sphere, environmental protection must be an integral part of the development process and cannot be considered in isolation from it. The trend of the modern society is the comprehensive management systems application by oil and gas companies in the process of achieving this global aim.

3. Corporate & Social Responsibility

From the onset, when talking about corporate and social responsibility (CSR), it is crucial to note that business is an integral part of development because it creates wealth, choice and opportunities amongst many others benefits. However, for the development to be sustainable, human rights and the environment must be respected, labour standards must be complied with, and corruption must be eradicated.

Apart from this, for globalisation to succeed, governments, businesses, civil society and labour organisations need to cooperate with each other in order to decrease the level of poverty, tackle climate change and prevent conflicts between States. Here, the concept of CSR is presented as a complex solution to all of these issues mentioned above .[311]

CSR has arisen as a business approach for addressing the social and environmental impact of company activities. CSR covers not only the question of what companies do with the profit they get, but the way

[307] Friedman, F. B., Practical guide to environmental management, 10th ed. USA: Environmental Law Institute; Piatkowski, S. M. (1997). Beyond compliance: environmental risk assessments at industrial properties. Journal of Property Management, 62.

[308] Glasson J., 'Introduction to environmental impact assessment. Principles and procedures, process, practice and prospects', London, UCL, (1995).

[309] ibid.

[310] S. Vinogradov, (n 298).

[311] Jędrzej George Frynas, 'Corporate Social Responsibility in the Oil and Gas Sector', (2009), The Journal of World Energy Law & Business.

in which they obtain it.[312] This includes how companies deal with their "economic, social, and environmental impacts, as well as their relationships in all key spheres of influence: the workplace, the marketplace, the supply chain, the community, and the public policy realm".[313]

The term "corporate and social responsibility" is often used interchangeably with corporate responsibility or corporate citizenship or social enterprise or sustainability or sustainable development or triple-bottom line or corporate ethics or and in some cases, corporate governance.[314] Although these terms are different, they all discuss the same challenge: companies are facing new demands to engage in public-private partnerships and are under pressure to be accountable not only to governmental/regulatory shareholders, but also to stakeholders such as employees, consumers, suppliers, local communities, policymakers, and society as a whole.

There have been different points of view on what is considered to be CSR:

- CSR is about the voluntary actions that a business can take, over and above compliance with minimum legal requirements, to address both its own competitive interests and the interests of wider society;[315] or
- Corporate citizenship is a business principle and practice that delivers business' long-term interests alongside the development of communities, the protection and sustainability of the environment, and the improvement of the people's quality of life;[316] or
- Corporate citizenship is about the contribution a company makes to society through its core business activities, its social investment and philanthropy programmes and its engagement in public policy. [317]

No matter which definition or view is chosen, they all have a common element. All of them state that CSR is *"a self-regulating business model that helps a company to be socially accountable—to itself, its stakeholders, and the public*".[318]

The petroleum industry has been among the leading industries in adopting CSR. The reason for this is connected with the environment and the adverse effects of daily routine operations, such as oil spills and the resulting protests by civil society groups and indigenous peoples.[319] Striking examples include oil tanker accidents, such as the Exxon-Valdez, indigenous unrest such as anti-IOCs protests in Nigeria

[312] Mukesh Kumar Mishra, 'Corporate Social Responsibility for National Building', (2013) < https://papers.ssrn.com/> accessed 22 October 2019.

[313] ibid.

[314] Sheehy, Benedict, 'Defining CSR: Problems and Solutions', Journal of Business Ethics. 131 (3) < https://link.springer.com/article/10.1007%2Fs10551-014-2281-x> accessed 30 October 2019.

[315] Nigel Slack, Stuart Chambers, Robert Johnston, Operations Management 6th edition (2010), Financial Times.

[316]World Bank, Public Policy for Corporate Social Responsibility (2003) <http://web.worldbank.org/archive/website01006/web/images/publicpo.pdf> accessed 26 October 2019.

[317] Mafimisebi, Taiwo, 'Contributions of Corporate Social Responsibility to Agricultural and Rural Development in Nigeria', (2010), Journal of Sustainable Development in Africa ER < https://www.researchgate.net/publication/263697191_Contributions_of_Corporate_Social_Responsibility_to_Agricultural_and_Rural_Development_in_Nigeria> accessed 1 November 2019.

[318] Emerald insight, 'The role of CSR in business strategy: Maintaining competitive advantage with a clearly-defined CSR programme', (2018) < https://www.emerald.com/> accessed 26 October 2019.

[319] Jędrzej George Frynas, (n. 311).

and the apparent involvement of certain oil companies in human rights violations.[320] Such events – widely reported in social media – have put significant pressure on multinational oil companies, such as Exxon, Shell and BP.[321]

Yet, despite the fact that the growth of CSR in the oil and gas sector is positive and ambitious, the main drawback here is that the reporting on these socially beneficial activities leaves much to be desired.[322] Some have noted, "the companies' reports concerning the result of the social development activity and improvement of the local content contain input, but not output measures" used.[323] In other words, oil and gas companies provide the public with information on the sums of money they have spent on education or other social benefits, but not how effectively these moneys were spent.[324] Even if we try to compare the level of expenses which large IOCs incur, it would be difficult to discern any distinction, since there is no standardised system to measure these expenditures.[325] For instance, certain IOC reported contributions towards arts and culture development in the amount of $2.3 million, higher education system in the amount of $41 million, and $18.5 million on health and environment.[326] However, there is unlikely to be a subsequent report detailing the results of the efficacy of such investments (did they lead to health level improvements, exhibitions holdings, or the amount of people who received an education?). There are, however, efforts to address this lack of information. One such example is the Natural Resource Governance Institutes "Tool Explorer" which allows users to search for tools based on their needs, their sector of interest, the type of impact they would like to measure and modelling potential impacts or measuring actual impacts.[327]

In Kenya, there have been examples of mentorship programmes being established by IOCs; whereby their relevant team members have taken part in voluntary mentorship scheme activities. This has included visits to secondary schools in local communities in different areas of operation, where IOCs have previously sponsored the building of classrooms and dormitories.[328] IOCs have also highlighted other types of community assistance that they have been engaged in, like the building of water infrastructure by drilling and rehabilitating boreholes,[329] the development of Enterprise Development Centres to build entrepreneurial skills within the community (this has led to partnerships with local businesses such as security firms, allowing expansion and increased local employment opportunities.[330] Such activities

[320] IH Rowlands, 'Beauty and the beast? BP's and Exxon's positions on global climate change' (2000) Environment and Planning C 18, 339-354.

[321] RB Clark, 'The long-term effects of oil pollution on marine populations, communities and Ecosystems', London: Royal Society, 1982.

[322] Commission on the Measurement of Economic Performance and Social Progress, Report < https://ec.europa.eu/eurostat/documents/118025/118123/Fitoussi+Commission+report> accessed 22 November 2019.

[323] Jędrzej George Frynas (n. 311).

[324] ibid.

[325] ibid.

[326] ExxonMobil, 2018 Worldwide Contributions and Community Investments, <https://corporate.exxonmobil.com/-/media/Global/Files/worldwide-giving/2018-Worldwide-Giving-Report.pdf> accessed 25 November 2019.

[327] Natural Resources Governance Institute, 'Beyond Revenues: Measuring and Valuing Environmental and Social Impacts in Extractive Sector Governance' (2019). < https://resourcegovernance.org/analysis-tools/publications/beyond-revenues-measuring-environmental-social-impacts> accessed 15 November 2019.

[328] Tullow Oil, 'Open Graph Title', (2020) <https://www.tullowoil.com/media/case-studies/kenya-mentorship-programme> accessed 10 February 2020.

[329] Tullow Oil, Our Sustainability Report (2019), <https://www.tullowoil.com/application/files/9215/8694/9510/Tullow_Oil_plc_Sustainability_Report_2019.pdf> accessed 15 August 2020.

[330] ibid.

have been documented by IOCs as examples of their CSR efforts, which often feature in their official public reports, referencing the direct impact they believe a given activity has had in the community. Regardless of the apparent aims of these types of efforts, the scrutiny of them legitimately remains very stringent and commentators who report on social impact, will not hesitate to call out issues regarding alleged CSR activities that they perceive as being negative and bringing the notion of CSR into disrepute.[331] It is imperative, therefore that CSR efforts are carefully monitored by IOCs and that have comprehensive checks and balances, including external oversight to safe guard against abuses and resulting negative impact this has on the company's and the sector's reputation.

In conclusion, CSR plays an integral part in the activities of the petroleum industry. Separately, it should be noted that social initiatives might be limited by corporate objectives and specific requirements of their activity. The relevant individuals from the oil and gas companies who are authorised to perform such social and development programmes (i.e., the company directors and executive managers) are deemed to be capable of dealing with management issues, which is further reflected in their proposals of CSR and, consequently, directly influences its effectiveness.

4. Monitoring / Management Plans & Expectations

In order to maintain a healthy balance between oil and gas activity, environment concerns and society, it is necessary to provide monitoring and consistent assessment of oil and gas operations impact.

Environmental Social Impact Assessment (ESIA) is an important tool to assess the potential impacts and risks that oil and gas operations might have on the environment in the area of operations and beyond, societies of host countries, fence-line communities of intended operational areas.[332]

ESIA is considered an effective risk management tool, which identifies and assesses environmental social issues that represent significant risks, costs and opportunities to projects and develop ways to mitigate and address these risks and opportunities. Moreover, ESIA is an integral tool of the project management for all operations and is an iterative process that occurs over the life cycle of a project.[333]

ESIA is beneficial since it provides protection of the environment and communities, improves project planning, better and more cost-effective mitigation, increased public support and reduced conflict. Nowadays, oil and gas companies are keen to use ESIA as a way of monitoring since it influences project design and improves the quality of decision-making. Also, ESIA is applicable for managing short and long-term impacts and might be required by the applicable law. In addition, it improves consensus and collaboration between parties and managing expectations, secures trust with the workforce, local com-

[331] Waruru, M., 'Revealed: Tullow Oil's Community Projects Having 'Very Little Impact' In Kenya's Drought-Ravaged Turkana Region', (2019), <https://www.desmog.co.uk/2019/10/29/tullow-oil-s-community-projects-kenya-having-very-little-impact-drought-ravaged-region> accessed 27 August 2020.

[332] IPIECA, A Guide to Social Impact Assessment in the oil and gas industry, (2006) <https://www.onepetro.org/conference-paper/SPE-98495-MS> accessed 01 November 2019.

[333] The Interorganizational Committee on Guidelines and Principles for Social Impact Assessment, Guidelines and Principles For Social Impact, (1994) <https://www.iaia.org/pdf/IAIAMemberDocuments/Publications/Guidelines_Principles/SIA%20Guide.PDF> accessed 01 November 2019

munities, and regulatory authorities. ESIA is an essential tool for preventing disputes, protests, blockades, and land access disputes. Finally, ESIA makes it easier to prevent economic costs, such as resettlement, through the prediction of social or environmental issues, which may become reasons for such costs.[334]

The main ESIA processes are:

1) Scoping
2) Consultation
3) Monitoring
4) Mitigation Measures
5) Management Plan
6) Dissemination of Findings
7) Resourcing[335]

Scoping is the process of developing a basic understanding of the project, the environmental and social setting and the stakeholders' needs and concerns. It defines the limits of the ESIA. Scoping consists of the following steps:

- gathering sufficient preliminary information to determine the area of influence of the project;
- identifying the scope of issues to be covered by ESIA;
- identifying the baseline data to be gathered during the ESIA;
- assessment of the level of stakeholder engagement that will be needed
- analysing of applicable legal requirements.[336]

The scoping phase is of great importance for the entire ESIA process, since it establishes the basics for future monitoring. Careful consideration in this phase enhances the success of the assessment.

Consultation is a tool within the ESIA process to identify and engage stakeholders in a meaningful dialogue and the exchange of information, views, ideas, and needs to better understood so as to address issues that could pose significant risk or conflict to a project.[337]

At this stage, stakeholders should be aware of planned and ongoing activities; they are entitled to participate in decision-making for issues that affect them. Working with affected stakeholders and host

[334]Minhajul Islam, 'Environmental Impact Assessment & Social Impact Assessment' <https://www.academia.edu/34271062/Environmental_Impact_Assessment_and_Social_Impact_Assessment_Environmental_impact_assessment> accessed 01 November 2019.

[335] The Interorganizational Committee on Guidelines and Principles for Social Impact Assessment (n 333).

[336] IPIECA, A Guide to Social Impact Assessment in the oil and gas industry, (2006) <https://www.onepetro.org/conference-paper/SPE-98495-MS> accessed 01 November 2019.

[337] ibid.

governments early will help parties completely understand their values, concerns, issues, and areas of mutual interest. Both industry and non-industry partners need to clearly articulate the need for effective, timely and continuous consultation.[338]

An element of the social action plan is monitoring. Effective monitoring increases credibility by improving acceptance of current projects, a basis for ongoing consultation, a defence against impact claims, enables the original scoping process to be checked, supports preferred mitigation choices for future projects, and learning from past operations and experience.[339]

For the purposes of monitoring, it is necessary to determine whether social impacts brought about by the project diverge in any way from those that were predicted during the environmental and social impact assessment process. If so, corrective actions should be taken to change the situation. Moreover, the assessment of the ongoing process is also of high importance, since it provides an insurance that the program aims are being met and allows to provide certain adjustments in the process of project realization. [340]

The aim of **mitigation measures** is to avoid, eliminate, and bring potential environmental and social impacts to acceptable levels and optimise benefits. In so far as the ESIA process is concerned and the collision of various and opposing interest priorities, these need to be carefully considered to avoid adverse impact through impact reduction or minimisation measures, or compensation.[341]

A **Management Plan** is necessary to provide an organised system and order for the complex scope of original data and provided measures. Companies should develop an action plan ranking and prioritising recommended ESIA actions, detailing the budget proposed and an implementation timetable. This plan should include roles and responsibilities of the project, project personnel, and third parties. In addition, clear requirements for social and environmental performance should be accounted for in contracting strategy and contractual requirements.[342]

Dissemination of findings is critical to developing effective plans for mitigating adverse impacts and optimising benefits. Dissemination should be a continuous process incorporating ongoing learning about the communities and changes in the conceptual design of the project. Findings should be shared with the project staff, designers, planners, and major contractors. Furthermore, a central element of dissemination of findings is communication of key findings and mitigation options to relevant stakeholders. This will be done on a case-by-case basis to ensure that the approach to communication with

[338] The Interorganizational Committee on Guidelines and Principles for Social Impact Assessment (n 333).
[339] ibid.
[340] Minhajul Islam (n 334).
[341] The Interorganizational Committee on Guidelines and Principles for Social Impact Assessment (n 333).
[342] ibid.

external stakeholders is appropriate to the cultural, economic, political and social setting of the project. Finally, the discussion of the findings is crucial for developing a successful mitigation plan.[343]

Resourcing is the final step of ESIA. At this stage, it is important that as many of the team as possible has regional knowledge and experience, including the ability to communicate in the local language, as these team members would be responsible for direct engagement with locals. Moreover, sufficient resources should be dedicated to allow for design, travel, translation, consultation, and research. This is because ESIA is a formal consultative process and requires practitioners with a variety of backgrounds and skill sets suited to project needs. The ESIA process needs to consider opportunities to influence project decisions, contracting strategies, and input to contractual requirements.[344]

While the ESIA process is essential in designing projects with minimal environmental and social effects, some challenges to this process have been voiced.

The first issue is the lack of awareness. Many companies are increasingly becoming aware of the need to include environmental and social management in their operations. There, however, is an acknowledgement that available tools are not well-promoted or understood. It is felt by some that these tools are the domain of specialists and "too complicated" to set out in the operation process.[345] To this end, it is recommended that parties make use of the Natural Resource Governance Institute's "Beyond Revenues and Tool Explorer database", which is a good resource.[346]

Nevertheless, the issue of awareness seems quite relevant in this modern context where companies are increasingly interested in environmental and social management process and are actively involved in the research process on this topic. There are a number of databases and guides, which provide for the extensive information concerning tools, frameworks and standards on the matter. For instance, Natural Resource Governance Institute developed a report and database, that "*allows users to search for tools based on their interest or needs, including the sector they are studying (whether oil and gas or mining), the type of impact they would like to measure and whether they are interested in modelling potential impacts or measuring actual impacts*".[347]

Another reason for the lack or limited use of these tools is the unavailability of evidence confirming the actual value and success of environmental and social impact assessments. There is a need to link and

[343]IPIECA, A Guide to Social Impact Assessment in the oil and gas industry, (2006) <https://www.onepetro.org/conference-paper/SPE-98495-MS> accessed 01 November 2019.

[344] ibid.

[345] Minhajul Islam, (n 334).

[346] Natural Resource Governance Institute, 'Beyond Revenues Measuring and Valuing Environmental and Social Impacts' (September 2019) <https://resourcegovernance.org/search/beyond%20revenues%20and%20tool%20explorer> ;<https://resourcegovernance.org/analysis-tools/publications/beyond-revenues-measuring-environmental-social-impacts> accessed 28 August 2020.

[347] Nadezhda Kalashnik, *Economic Damages From Emergency Situations And Accidents In Marine Oil And Gas Developments: Analysis And Approaches To Evaluation (*Problems Of Economics And Management Of Oil And Gas Complex 2011) 16; Yang Y, *Liability and compensation for oil spill accidents: International regime and its implementation in China* (Natural Resources Journal 2017) 469. Natural Resource Governance Institute, <https://resourcegovernance.org/analysis-tools/publications/beyond-revenues-measuring-environmental-social-impacts> accessed 07 February 2020.

integrate procedures and results to ensure that assessments provide useful and effective input into crisis management operations.348

5. Emergencies, Releases and Accidents

Despite all the safety assessments and precautions mentioned above, the oil and gas industry is generally acknowledged as one of the most dangerous. This is because of such reasons as complexity of the process of oil and gas exploration, technical complexity of the equipment itself, oil and gas explosion hazards, etc. For example, the main complexities for the offshore oil production industry are:

- damage and loss of functionality of technical equipment, which may require additional financial costs for putting them into operation and liquidation consequences of accidents;
- constant external loads on the facilities, such as water movement, wind and ice loads, seismic phenomenon, which can cause an emergency situation;
- a tiny space of the production works concentration (for instance, on a platform), which is usually remote from the coast and coastal infrastructures; and
- pipelines and other facilities elements are extremely sensitive to any deformations and displacements, which makes any repair work very expensive. [349]

The most common and wide-spread types of oil and gas emergencies are spills of oil, blowout and fire, crane accident and injury, equipment failure, fall and fatality.[350] The most wide-spread and harmful are oil spill accidents, which usually refer to unexpected and heavy releases of oil with the potential of causing significant economic loss, personal injury, or environmental damage. These accidents are chiefly caused by human activities (e.g., oil drilling, manufacturing, storage, transportation, and waste management) and come in conspicuous forms, such as well blowouts, pipeline breaks, and ship collisions or groundings. The recorded spills mostly occurred in marine transportation and offshore oil and gas operations, especially in cases where an oil tanker broke up in heavy seas, or a disaster occurred at an offshore oil platform.[351] An example is the British Petroleum (BP) underwater oil spill in 2010 which killed 11 crew members aboard the drilling rig and caused the largest oil spill in U.S. waters.[352] In 2015, BP agreed to pay $18.7 billion to settle all federal and state claims arising from the 2010 Deepwater Horizon oil spill.[353] It has been estimated that BP has already incurred around $44 billion in legal and clean-up costs.[354]

348 ibid.

[349]Nadezhda Kalashnik, 'Economic Damages From Emergency Situations And Accidents In Marine Oil And Gas Developments: Analysis And Approaches To Evaluation', (Problems Of Economics And Management Of Oil And Gas Complex 2011) 16; Yang Y, 'Liability and compensation for oil spill accidents: International regime and its implementation in China', (Natural Resources Journal 2017) 469.

[350] Ekaterina Pivtsaykina, 'Analysis of accidents at oil and gas industry facilities', (Student's forum 2019) 2.

[351] Michael Bowman, Alan Boyle, *Evironmental damage in international and comparative law* (Oxford University Press 2002) 156.

[352] Daniel Gilbert and Sarah Kent, 'BP Agrees to Pay $18.7 Billion to Settle Deepwater Horizon Oil Spill Claims' (The Wall Street Journal, July 2015) <http://www.wsj.com/articles/bp-agrees-to-pay-18-7-billion-to-settle-deepwater-horizon-oil-spill-claims-1435842739> accessed 03 March 2016.

[353] ibid.

[354] ibid.

During the operation of any production facility of increased danger, there is always the possibility of serious emergencies, technical incidents, as well as accidents, including fatalities. Such processes, as a rule, are manifested in the form of destruction of buildings and structures, as well as technical mechanisms and devices.

There is always the possibility of serious emergencies during the operation of any production facility, which usually happens as a result of explosive processes and uncontrollable releases of hot and toxic substances. There are three main factors, which may become a reason for these negative occurrences:

- Technical condition of the equipment, as well as industrial buildings and structures.
- The level of qualification of specialists operating a hazardous production facility.
- Organization of the production process in terms of preventing emergencies.[355]

According to this, one can conclude that the main causes of accidents in this area can be classified as both technical and organizational. The first ones include the matters which are connected with the construction and installation of the facilities and equipment and include, but are not limited to the defects in the construction of buildings, as well as deviations from design decisions during the installation of the facilities, high wear and tear of the equipment, the lack of automatic systems and new technologies and low level of alert systems.[356] Organizational causes of technical incidents basically refer to the so-called "human factor" and are connected with the drawbacks in the process of operations organization and control of safety standards obedience. There can be an insufficient level of production and technological discipline, low-quality staff, and low organization of production work.[357]

The most significant and destructive results of oil and gas accidents are environmental pollution, economic damage associated with the loss of products, the cost of eliminating the accident, psychological and biomedical consequences.[358] The last two damage items are together regarded as 'traditional damage', which is typically a ground for the liability of the wrongdoers and application of the international civil liability conventions.

Environmental damage is a ground for an application to invoke measures to be found in some special conventions, such as the Convention on Civil Liability for Oil Pollution Damage[359], which imposes liability for the "pollution damage" and defines it as follows:

> "(*a) loss or damage caused outside the ship by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur, provided that*

[355] Elvina Ahmadullina, 'Main Causes Of Accidents And Emergency Situations In The Oil And Gas Industry', (Newsletter Of A Young Scientist USTU 2016) 26.

[356]Ibid; Nancy Leveson, 'Risk Management in the Oil and Gas Industry' 2011 <https://energy.mit.edu/news/risk-management-in-the-oil-and-gas-industry/> accessed 26 October 2019.

[357] Michael Bowman, Alan Boyle (n 351) 156.

[358] Alena Douhan, Max Planck, *Encyclopedia of public international law, Liability for environmental damage* (Rüdiger Wolfrum 2013) 830.

[359] Yang Y (n 347) 470.

compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken;

(b) the costs of preventive measures and further loss or damage caused by preventive measures".[360]

The basic aim of the spill liability conventions is to provide compensation for the recoverable damage to environment and to impose liability over the oil and gas operators for the quantifiable economic damage caused, without imposing liability "for damage inflicted upon the environment per se".[361] To prevent accidents and emergencies in the oil and gas sector and, as a result, negative consequences, the parties involved must provide appropriate incentives to change the safety culture, which can be realized through providing industry standards, industry self-policing, safety management systems, integration of safety engineers into operational decision making, certification and appropriate training of employees.[362]

6. Liabilities

6.1. General Information

In the event of environmental damage and damage to people's health and property, States are likely to seek imposing liability on the responsible party/parties. Environmental damage may be inflicted as a result of contamination, exhaustion, deterioration, destruction or irrational use of natural resources; degradation and destruction of natural environmental systems, ecosystems and natural landscapes or other violations of environmental legislation.[363] The particularity of such liability in the oil and gas sector is that liability for environmental damage caused as a result of oil and gas operations is imposed in most cases irrespective of fault.[364]

6.2. Forms of Liability

There are different forms of liability such as administrative fines for violating environmental law. Also, the cost of eliminating the environmental violation should be paid by the breaching party. In addition, the breaching/defaulting party is liable for any harm to human life, health and property, damaged as a result of oil and gas releases.[365]

Another type of liability is the cost of works aimed at restoring the environment to its initial state (also called 'compensation of damages inflicted on the environment in kind').

[360] International Convention on Civil Liability for Oil Pollution Damage 1969, art 1.

[361] Yang Y (n. 347) 470.

[362] ibid.

[363] Yang Y (n. 347) 438.

[364] Michael Bowman, Alan Boyle, (n. 351) 155.

[365] Benoit Jacqmotte, 'Definition and Assessment of the Concept of Harm in a Regime of Transboundary Harm Prevention', (Austrian Review of International and European Law Online 1998) 260.

Finally, the breaching/defaulting party is also required to pay compensation in relation to the amount of damage inflicted on the environment (usually calculated on the basis of fixed tariffs and formulae for such compensation established by law).[366]

(a) Relevant Regulations on Liability

As far as the international community is interested in protecting the world's environment from pollution and damage caused by the oil and gas activity, there is large body of international acts imposing liability for such damage.

Historically, shipping accidents have been a major source of the world's oil and gas accidents, with the most harmful environmental impact. This reality has significantly impacted the development of the current international regime on liability and compensation for oil pollution through the efforts of the International Maritime Organization (IMO). The regime is comprised of a series of conventions adopted pursuant to the IMO's objective of keeping the shipping industry safe and clean. Considered together, these conventions establish a liability and compensation framework for oil pollution released from ships, which was adopted and implemented by signatory States.[367]

For instance, International Convention on Civil Liability for Oil Pollution Damage (CLC) 1969[368] is an international maritime treaty administered by the International Maritime Organization that was adopted to ensure that adequate compensation would be available where oil pollution damage was caused by ships that carry oil and cargo. The Convention introduces strict liability for shipowners.[369] In addition, it provides that in cases when the shipowner is deemed guilty of fault for an instance of oil pollution, the Convention does not cap liability.[370]

In addition, the Convention establishes several exceptions for the liability of shipowners, such as act of war, terrorism, natural disaster, spill wholly caused by intentional act or omission of third party, spill wholly caused by negligence or wrongful act of public authority regarding maintenance of navigational aids.[371]

Another international regulation on the issue is the International Convention on the Establishment of an International Fund for Oil Pollution Damage (Fund Convention) 1992,[372] which is an international maritime Treaty, administered by the International Maritime Organization. The Convention was drawn up to relieve shipowners from unfair liabilities due to unforeseeable circumstances and on the other hand, remove liability caps that some member States thought were too low.[373] The Fund Convention

[366] Alena Douhan, Max Planck (n 358) 830.

[367] Yang Y (n 347) 436.

[368] International Convention on Civil Liability for Oil Pollution Damage 1969.

[369] ibid, Article III.

[370] ibid, Article V (2).

[371] ibid, Article III.

[372] Convention on the Establishment of an International Fund for Oil Pollution Damage 1992.

[373] For a discussion see, IOPC Funds <https://iopcfunds.org/about-us/legal-framework/1992-fund-convention-supplementary-fund-protocol/> accessed 03 September 2020; IOPC Funds, Liability and compensation for oil pollution damage: Texts of the 1992 Civil Liability Convention, the 1992 Fund Convention and the Supplementary Fund Protocol (International Oil Pollution Compensation Funds 2018) <https://iopcfunds.org/wp-content/uploads/2018/06/Text-of-Conventions_e.pdf> accessed 03 September 2020; Environmental Pollution Centres, 'Oil Pollution' <https://www.environmentalpollutioncenters.org/oil-spill/> accessed 03 September 2020.

provides an obligation of funds to pay victims of pollution where the damages exceed the shipowner's liability, where there is no liable shipowner, or where the shipowner is unable to pay its liability. The fund is also required to "indemnify the shipowner or his insurer" in instances of spills where a ship is in full compliance with international conventions, and no wilful misconduct caused the spill.[374]

Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) 1992[375] is a regional convention on marine pollution, including oil spills, which covers Northeast Atlantic and catchments of Europe. The Convention is aimed at the cooperation of the contracting parties to cover all human activities that might adversely affect the marine environment of the North-East Atlantic, including damaging oil and gas activities.

The International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea 1996[376] contains provisions intended to compensate for damages caused by spillage of hazardous and noxious substances during maritime transportation. The Convention has not entered into force due to signatory States not meeting the ratification requirements. The convention covers several types of damages, including loss of life or personal injury, loss of or damage to property outside the ship, loss or damage caused by contamination of the environment, costs of preventive measures.

The convention establishes a two-tier system for compensation in the event of accidents at sea: the first one will be covered by the ship owner's compulsory insurance, while the amount of compensation depends on the gross tonnage of the ship involved in the incident.

Companies that import hazardous substances in member states of the convention will be required to contribute to a special fund. On these second-tier contributions will be based on the amount of substances companies receive each year.

Finally, the International Convention on Civil Liability for Bunker Oil Pollution Damage 2001 aims to adopt uniform international rules and procedures for determining questions of liability and providing adequate compensation.[377] In the convention, Bunker Oil is defined as “fuel used to power the ship”.[378] The Convention covers leakage of that oil and requires signatories to have their ships appropriately insured against such leakages. However, “i*n its current form, the regime does not extend to non-ship-source oil pollution, which poses a significant challenge both to assigning liability to offshore oil and gas operators and to compensating parties suffering damages as a result of pollution caused by offshore oil*

[374] ibid.

[375] International Convention for the Protection of the Marine Environment of the North-East Atlantic 1992.

[376] International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea 1996.

[377] International Convention on Civil Liability for Bunker Oil Pollution Damage 2001.

[378] ibid, art 1.

and gas operations".[379] The international and governmental agencies attempted several times to establish a "unified liability regime for pollution damage".[380] Unfortunately, just a few compensatory rules universally apply to pollution damage.

In conclusion, due to the huge risk of damage caused by oil and gas activity and the high level of negative consequences arising therefrom, the liability of subjects involved in the oil and gas industry is of significant importance. This is one reason why this area is regulated by international law, regional acts and national legislation. On the international level, great attention is paid to the regulation of liability arising from oil spills, especially concerning off-shore oil spills and ship-source oil pollution.

[379] Yang Y (n 347) 446.

[380] ibid.

Key Chapter Points

In this chapter the reader should have learned what the "resource curse" hypothesis deals with and its consequences, namely, the "Dutch disease", which factors, to date, influence its existence (political regime, global climate change, diversification of the economy etc.); what are the main problems arising out of the environmental protection during oil and gas development and production (air emission of gases, industrial wastewater discharges, waste generations, accidental releases) and how to comply with them within the modern state of the world. Corporate social responsibility (CSR) was also discussed, in terms of the petroleum sector and how they affect each other. In addition, the reader would have learned what constitutes an Environmental Social Impact Assessment (ESIA), and what encompasses the main ESIA tools, such as: scoping, consultation, monitoring, mitigation measures, management plan, dissemination of findings and resourcing. The reader should now be aware of the main issues concerning ESIA and ways to resolve them. Concerning the emergencies and accidents in the oil and gas industry, the common types of oil and gas emergencies are: spills of oil, blowout and fire, crane accident and injury, equipment failure, fall and fatality, etc. At the same time, the most crucial causes of them are technical and organisational reasons. Finally, the chapter dealt with the main features of liability in oil and gas activities, including such forms of liability as administrative fines, liability for any harm to the human life, health and property and compensation of damages inflicted on the environment in kind. The reader has been referred to some of the regulative framework relating to the subject matter, including the International Convention on the Establishment of an International Fund for Oil Pollution Damage (Fund Convention) 1992, Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) 1992, International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea 1996 and International Convention on Civil Liability for Bunker Oil Pollution Damage 2001.

This chapter focuses on applicable/governing law and dispute resolution in the oil and gas industry. The first section centers on governing law and its basic features. It also highlights the basic principles concerning governing law – the principle of freedom of choice, and various restrictions to it, which are quite common for PSAs concluded with Host Governments. The next section provides a general description and outlines differences between Common and Civil law and of several legislative frameworks such as England and US state law, which the parties to oil and gas agreements may choose as governing law. Finally, there is a description of basic conflict of law's provisions, which may be applicable in cases where parties have failed to choose a governing law in their agreement.

The second section of this chapter outlines the basic dispute resolution tools; their definitions, main features, as well as the advantages and disadvantages of using each. The dispute resolution tools discussed include negotiation, mediation, expert determination, litigation, arbitration and international adjudication. Finally, it describes the differences between alternative dispute resolution and litigation.

Disputes are often an inevitable and at the same time, undesirable part of commercial relations. This reality is ever present in the oil and gas industry, which is understandable given its multi-dimensional nature. Activity in the industry involves a wide variety of stakeholders, multiple parties, large investments and long-term agreements; moreover, matters are further complicated due to the foreign and multijurisdictional elements that are more often than not a feature of this field. This complexity in the dispute resolution process, can be said to be directly proportionate to the complexity of the transactional activity in which it occurs, which also explains why dispute resolution is a burning issue in the oil and gas industry.

Recently, there has been a substantial increase in the number of disputes in this sector. Thus, the energy sector generated the largest number of cases resolved before the International Chamber of Commerce (ICC)[381]. In 2017 the energy sector represented 19% of the overall caseload[382] and consisted of half of the applications filed at the ICC.[383] With respect to the year 2019, the ICC Dispute Resolution Statistics for 2019 records that disputes within the construction and energy sectors generated approximately 40% of the ICC's arbitration case load. Further, around half of the Emergency Arbitrator applications filed in 2019 were from these sectors.[384]

[381] ICC Dispute Resolution Bulletin (2018) <2go.iccwbo.org/icc-dispute-resolution-bulletin-2018-issue-1.html> accessed 20 October 2019.
[382] ibid.
[383] ibid.
[384] The ICC Dispute Resolution Statistics 2019 https://iccwbo.org/publication/icc-dispute-resolution-statistics/ accessed 20 October 2019.

The same trends are confirmed by the International Centre for Settlement of Investment Disputes (ICSID) data, according to which, disputes in the Oil, Gas and Mining industry account for about 24% of all cases registered under the ICSID convention and 21% of new ICSID cases registered in 2019.[385] [386]

As oil and gas contracts often involve local companies, multi-nationals and the government, the interplay between the different nationalities, legal backgrounds and complexity involved in such agreements also emphasizes the need for parties to pay attention to the way their disputes will be resolved. Nevertheless, the parties involved in oil and gas activities might be able to prevent certain risks and negative outcomes *before* the dispute occurs. In this regard, prior to concluding any deal, it is important to dedicate enough time to know the relevant parties of the transaction and to properly and meticulously draft the contract's governing law and dispute resolution clauses.[387]

1. Applicable / Governing Law

1.1. General Information

Applicable or governing law is defined as the system of law or a body of rules or principles that govern the various aspects of a contract. Governing law can be also defined as "*the system of law which governs the validity and interpretation of the contract, the rights and obligations of the parties, and the consequences of breaches of the contract.*" [388]

The role of the governing law in contractual relations is significant. It regulates the legal issues arising out of a contract that are not provided for in the contract. In this regard, the governing law will have a limited role if the parties have extensively dealt with duties, rights and possible legal consequences of any breach within the boundaries of the relevant law.

Governing law will, in the absence of contractual provisions, determine such aspects as: "(1) the scope of contractual obligations, (2) the applicable remedies in case of a contract breach, (3) the extent and duration of liability of the parties in case of breach, etc".[389]

This is why it is important to think carefully before selecting the governing law. It is advisable to select a legal system that provides a robust legal framework relevant to the nature of the transaction in question and which is able to provide clear concepts, rules and familiarity with the industry. In this way the governing framework surrounding the deal is likely to provide greater commercial certainty.

[385] The ICSID Caseload Statistics (2019) <icsid.worldbank.org/en/Pages/resources/ICSID-Caseload-Statistics.aspx> accessed 20 October 2019.

[386] Eduardo Guedes Pereira, Tuuli Timonen, Elina Aleynikova (eds), Governing Law and Dispute Resolution in the Oil and Gas Industry (Edward Elgar due for publication in 2021).

[387] M Clarke, J Neuberger, *Drafting Effective Dispute Resolution Clauses, in R King, Dispute Resolution in the Energy Sector: A Practitioners Handbook* (Global Business Publishing Ltd, 2012) 10.

[388] A F M, 'Choice of Law in International Contracts: Some Fundamental Conflict of Laws Issues', (Journal of International Arbitration 1999) 142.

[389] Dr. Vivek Kumar, *Municipal laws and choice of law clause in international contracts* (International Research Journal of Human Resources and Social Sciences № 4 2017) 104.

1.2. Freedom to Negotiate

The ability of parties to choose their governing law is provided for by the principle of party autonomy, established in Article 3 of 1980 Rome Convention on the Law Applicable to Contractual Obligations (the Rome Convention)[390]. It provides that *"a contract shall be governed by the law chosen by the parties. The choice must be expressed or demonstrated with reasonable certainty by the terms of the contract or the circumstances of the case. By their choice, the parties can select the law applicable to the whole or a part only of the contracts."*

The Rome Convention allows for the choice of law, which has no connection with the contract. By Article 1(1) of the Rome Convention, its rules apply to contractual obligations *"...in any situation involving a choice between the laws of the countries".*[391]

Article 3 (1) states that the law chosen by the parties governs a contract.[392] The combined effect of these articles is that parties, who are in one country and whose transactions are connected only with that country, may choose the laws of another country as their governing law. The courts of the nations who are parties to the Rome Convention must, subject to any mandatory rules, give effect to that choice.

It is clear from Article 3 (3) that the Rome Convention provides that the choice of a foreign law may be made even if all the elements that would determine the governing law applicable in the absence of express agreement by the parties are connected with the country other than what was chosen. This shows that in principle it is possible to choose a governing law that has no direct connection with the transaction or the parties. However, in some cases the reality is different as explained below.

It is important that the choice of the parties be express or demonstrated with reasonable certainty by the terms of the contract or the circumstances of the case. This will protect the parties from any inaccuracy and ambiguity of recognising the governing law in the contract.[393] Uncertainty concerning the applicable governing law, will result in uncertainty in relation to the exact nature and enforceability of the parties' rights and obligations.

In short, the choice of law clause ensures contractual certainty. In oil and gas related contracts, it is common for parties to include a governing law clause. In the absence of such a clause, the governing law will be unknown to the parties until a court has spoken and confirmed it. Different rules will apply to the determination of the governing law (e.g., performance of the transaction, location of the subject matter, place of the parties' operations).[394]

[390] Rome Convention on the law applicable to contractual obligations 1980.

[391] ibid.

[392] ibid.

[393] Dr. Vivek Kumar (n 389) 104.

[394] K.Lipstein, *International Arbitration Between Individuals and Governments and the conflict of Laws* (*Contemporary Problems in International Law* 1988) 177.

1.3. Restrictions

The principle of choice of law is not absolute. Since governments are concerned about: (i) preserving the control of oil and gas operations; (ii) protecting the state's economic interests; and (iii) developing oil and gas sectors through the application of national law, government entities that are parties to oil and gas related contracts would rather have domestic law govern their contracts. In this respect, the freedom of parties to choose the applicable law will be restricted.

Certain national legislations prohibit parties dealing with governmental entities from choosing the governing law in the contract. For example, the Bolivian constitution provides that, all foreign investments in the oil and gas sectors are subject to Bolivian Law and the parties cannot agree otherwise.[395]

However, this restrictive approach can deter foreign investors from investing in these sectors. Foreign investors often consider the restrictions of their right to choose the governing law of a contract to be a limitation on their ability to protect their investment interests.[396]

Therefore, for the balance between the state and the investor's interests States generally authorise the freedom of choice of law, but stipulate several exemptions.[397] Thus, the principle of party autonomy can be subject to certain restrictions based on the rules of public policy, *odre public* and statutory control, which is regarded as a universally recognised principle.[398] This can be illustrated by Russian legislation, in which the choice of law provisions are not applicable if the "direct application rules" of Russian law should be applied.[399]

In addition, some state's legislative provisions may differentiate the freedom to negotiate upon the governing law depending on the parties to the contract: i.e., whether the contract is concluded with the government or among private entities. Generally, states are keen to restrict the freedom of choice of governing law in contracts where the government is a party and impose the application of the host state's law. This construction is common for countries such as Canada[400], USA[401], Russia[402], etc.

While prescribing the compulsory application of the Host States' law, governments are guided by the "*concept of protectionism of governmental sovereignty, natural resources and economics*", since it is more convenient to control operations in oil and gas industries.[403]

[395] Political Constitution 2009, art 320.

[396] Pereira, Timonen, Aleynikova (n 386).

[397] Ibid.

[398] J.Shilpa Singh, Estheri Boro, 'Choice of law in private international law & international contracts' <www.academia.edu/28657218/choice_of_law_in_private_international_law_and_international_contract> accessed 17 October 2019

[399] Civil Code of the Russian Federation 2006, art 1210.

[400] Geoff R. Hall, *Canadian Contractual Interpretation Law* (LexisNexis 2016) 279.

[401] 43 U.S.C. §1333(a)(1).

[402] Civil Code of the Russian Federation 2006, art 1193.

[403] Pereira, Timonen, Aleynikova (n 386).

Therefore, the host state's control is aimed at the most substantial fields, which may affect state's national security, human rights, economic stability and environmental issues. That's why some of these fields might be subject to restrictions vis a vis freedom of choice.

This can be illustrated by Georgian legislation, which prescribes the following areas in which the Georgian law must apply:

- Land and property rights in general[404]
- Petroleum operations provided in Georgia
- Registration of legal entities[405]
- Decisions of a legal entity, if its residence is in Georgia
- Registration of intellectual property rights
- Protection of human rights and environment.[406]

Further, in the United States, federal onshore and offshore leases, and US law must regulate criminal matters.[407] Other countries have similar provisions as the ones listed above including those in Africa; so understanding the mandatory rules of the jurisdiction in question is critical.

In the case of Canada, mandatory rules, such as criminal law and regulatory regimes of the province or territory to which the contract has the strongest connection, must be regulated by the local legislation.[408] This approach makes it possible to protect institutions, which concern national security and sovereignty of state, without prejudice to the investor's right of choice.

Such protectionist measures are obviously perceived negatively by foreign investors as an infringement of their freedoms and a barrier to business in that area. However, some scholars believe that "protectionism is an essential measure for the government to protect its own interest in oil and gas operations without prejudicing contracting relationships".[409]

In summary, although the concept of freedom of choice and contract is a general principle in international law, the reality of parties contracting within the oil and gas sectors may be different with respect to matters that are inherently tied to sovereignty such as property law, criminal law, and national security.

1.4. Common Law vs Civil Law

As previously stated, the governing law clause should be drafted clearly and precisely. For the parties it is of high importance to establish the appropriate law to govern their relations. During this process, it is

[404] Civil Code of Georgia 1997, art 148.
[405] The Law on Private International Law, 1998 art 32.
[406] The Law on Private International Law, 1998 art 35.
[407] 30 U.S.C. §188.
[408] Geoff R. Hall (n 404) 280.
[409] Pereira, Timonen, Aleynikova (n 386).

necessary to take into consideration peculiarities of both various legal systems and particular legislative frameworks.

There are a large variety of legal systems available from customary law, Islamic law, Common law, Civil law and combinations of these legal systems. However, the main basis tends to derive from two legal systems: the common law system and civil law system.[410]

Common law systems derive their legal system from the laws of England. The tradition is largely centred around precedent. Precedents are judicial decisions that have already been made in similar cases that guide or bind subsequent cases based on similar or the same facts. These precedents are maintained over time through the records of the courts and are historically documented in the yearbooks and law reports, which can be defined as collections of case law. The presiding judge determines precedents that should be applied to the case at hand in the decision of each new case. As a result, judges have an enormous role in shaping common law jurisprudence.[411]

Civil law, conversely, is a codified system of laws, which is derived from Roman law. Civil law has comprehensive legal codes that specify all matters considering the issue, the applicable procedure, and the appropriate punishment for each wrongdoing. In a civil law system, the judge's role is to establish the facts of the case and to apply the provisions of the applicable code.

The judge's decision is consequently less crucial in shaping civil law than the decisions of legislators and who draft the codes. While choosing between these two legal systems, parties need to pay attention to the procedural differences (inquisitorial or adversarial) in the system.[412] This is also particularly relevant in alternative dispute resolution proceedings that we discuss below.

In addition, there are several advantages and disadvantages of both legal systems. For example, the common law system tends to provide more contractual freedom to the relevant parties, and the court is less likely to change the agreed terms in a given contract. On the other hand, freedom of contract in the civil law system might be considerably less, and the court is more likely to intervene in the relevant contract.[413]

It should also be noted that some legal principles that Civil law jurisdictions recognize are not always recognized in Common law jurisdictions and vice-versa. For the oil and gas sector, this can have significant consequences in the negotiation of agreements, in respect of the terms to be included and the obligations and rights of parties to the contract. There are various legal concepts that come up in international contracts that reflect the respective legal traditions but could face different enforceability issues according to the relevant system; some examples of these include good faith (bona fide) obligations, reasonableness, trust, punitive damages, forfeiture, and specific performance.[414]

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[410] John Henry Merryman, Rogelio Pérez-Perdomo, *The Civil Law Tradition: An Introduction to the Legal Systems of Europe and Latin America*, (Stanford University Press 2018) 2.

[411] Jan Smits, Rolf Dotevall, *Elgar Encyclopedia of Comparative Law* (Edward Elgar Publishing 2006) 153.

[412] Claudia Lydorf, *Romance Legal Family* (Institute of European History 2011) 5.

[413] John Henry Merryman, Rogelio Pérez-Perdomo (n 4170 3.

[414] Joint Operating Agreements, 'Guidance Notes to 2012 AIPN Model JOA',Challenges and Concerns from Civil Law Jurisdictions, Appendix B (Wolters Kluwer 2019).

2. Features of The Particular Legislations

As for identifying the relevant legal framework within a jurisdiction, it is important for parties to be aware of certain features connected with the relevant legislation. Thus, in countries with strong federalist traditions, such as the United States, Australia, and Canada, the parties must select the law of a particular State of the United States or of Australia or the law of a particular Province of Canada.[415]

In the United Kingdom, the Parties should select, for example, the law of England and Wales or Scotland. It would be quite complex to select the "law of the United States" or of "the United Kingdom" broadly because such laws have limited scope given the constitutional federalist and union frameworks that characterize these particular jurisdictions respectively.[416] This "mistake" might be common among inexperienced provision drafters. On the other hand, it would not be a complex choice to select the law of France, as France has a single body of contract law.

In selecting the governing law, the Parties should choose the law of a jurisdiction that will recognize the validity of their agreement and will enforce the agreement as written. Thus, the advice of local legal counsel should be sought if there is any doubt about the appropriateness of a particular body of law.

The Parties will ordinarily want to avoid selecting a jurisdiction that will fail to enforce any portion of the contract as written. As a general observation, the Parties should be especially cautious about the effect their choice of law may have on the enforceability of the indemnity or compliance provisions in the Contract.[417]

In addition, the parties need to be aware that they may not be able to avoid the application of certain laws of the HG, such as environmental laws, or of extra-territorial laws from a number of countries, such as economic sanctions or compliance laws.

3. Conflict of Laws Provisions

There are some situations, when the parties fail to establish governing law in their contract. In this case, governing law is recognized by the conflict of law provisions.

Conflict of laws provision is "*a set of rules for determining which law to apply in a case over which two or more contradictory laws seem to have jurisdiction*".[418] These laws can be divided into three areas:

- "*The jurisdiction of a court, its competence to hear and decide a case.*
- *The law governing a relationship, the rules applicable for deciding a case.*
- *The recognition and enforcement of judgments rendered by foreign courts*".[419]

[415] A.B. Derman, M. Hallake, A. Golding, *W.M. Katz Jr. & P.A Vermillion, Choice-of-law Provisions when Drafting Arbitration Provisions for International Oil and Gas Agreements* (OGEL 1, 2006) 17.

[416] Geoff Hewitt & Terence C Daintith, *United Kingdom Oil and Gas Law* (Sweet & Maxwell 2017), 6.

[417] A.B. Derman, M. Hallake, A. Golding, *W.M. Katz Jr. & P.A Vermillion* (n 415) 20.

[418] Pereira, Timonen, Aleynikova (n 386).

[419] Dr. Vivek Kumar (n 389) 106.

The scope of conflict of law provisions is broad in different legislations. However, the *lex rei sitae*, which generally is referred to immovable property, is the most popular among various jurisdictions.[420]

There is a wide range of conflict of law provisions, which are diverse in various legislations. The most common conflict of law provision is that claims related to immovable property, such as claims for ownership, disturbance, prevention of right, and forcible possession, can be submitted to a court where the property is located, even though the defendant may be domiciled elsewhere.

In the same spirit, the conflict of laws rules stipulate that, regardless of the agreed applicable law, imperative norms regarding the form of transaction where the land is located shall apply.[421] This provision is applicable in most states including Iran, Russia[422], Georgia[423] and Qatar[424] .

Another example of coherence among conflict of law provisions concerns the application of the place of residence of the investor rule. Thus, in Georgia the applicable law is determined according to the investor's "habitual residence" or "residence of administration" at the time of the conclusion of the contract.[425]

Other principles recognized in various legislations include the following: *lex loci actus* (the law where the legal act is conducted); *lex loci contractus* (the law where the contract is signed); *lex loci solutionis* (law of the place of performance of the contract which in oil and gas operations is usually the territory of the host State); and the law of place of operations.[426]

With respect to petroleum and gas contracts, the petroleum resources that are the subject matter of the contract, are located in the host government's sovereign territory and the legal activities and petroleum operations are all performed in the host country. That is why the courts and arbitral tribunals will most likely apply host government law. These principles are common for Iran, Azerbaijan, some states of the USA[427], Russia,[428] etc.

Finally, a commonly used conflict of law provision is that the applicable law will still be the host governmental law based on general conflict of law rules, as the law with the closest connection with the contract. This concept is prevalent in Nigeria and in some states of the USA.[429]

The general understanding of this conflict of law provision is established in the 1980 Rome Convention[430], under which *"the contract is most closely connected with the country where the party who is to*

[420] Pereira, Timonen, Aleynikova (n 386).
[421] A Briggs, *The Conflict of Laws* (4th edn Oxford University Press 2019) 50.
[422] Civil Code of the Russian Federation 2006, art 1205.
[423] Oil and Gas Law, 1999 art 30.
[424] Civil Code of the State of Qatar 2004, art 27.
[425] The Law on Private International Law, 1998 art 36.
[426] A Briggs (n 421) 56.
[427] 43 U.S.C. §1333.
[428] Arbitration Code of the Russian Federation 2002, art 31.
[429] 43 U.S.C. §1333.
[430] Rome Convention on the law applicable to contractual obligations 1980, art 4.

effect the performance which is characteristic of the contract has, at the time of conclusion of the contract, his habitual residence, or, in the case of a body corporate or unincorporate, its central administration".[431]

Conflict of laws provisions can be established not only by the national legislation, but by international treaties and conventions.

The most notable example is Rome I Regulation.[432] It provides various conflict of laws provisions for the different situations. The basic rule provided in Article 4 of the 1980 Rome Convention is that if the parties fail to agree upon the law applicable to their relations, they should be governed by the "*law of the country with which it is most closely connected*".[433] Nevertheless, this article establishes an exception: "a severable part of the contract which has a closer connection with another country may be governed by the law of that other country."[434]

The 1980 Rome Convention confirms the rule, established in most countries mentioned above, that relations concerning immovable property or a right to use immovable property shall be regulated by the law of the State where the immovable property is situated.[435]

Finally, international law may also be applicable as a governing law in the absence of choice of law provision in the contract. For instance, the International Centre for Settlement of Investment Disputes Convention 2006 (ICSID Convention 2006)[436] provides that in the absence of agreement between parties, the rules of international law may be applicable.[437] The ICSID Convention also makes a reference to the Statute of the International Court of Justice 1945[438] in order to define the meaning of the term "international law".

According to Article 38 of the Act, the term "international law" includes such sources as:

"*a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states*

b. international custom, as evidence of a general practice accepted as law;

c. the general principles of law recognized by civilized nations;

d. judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law".[439]

[431] ibid.
[432] Rome Convention on the law applicable to contractual obligations 1980.
[433] ibid.
[434] ibid.
[435] Rome Convention on the law applicable to contractual obligations 1980, art 4.
[436] ICSID Convention 2006.
[437] ICSID Convention 2006, art 42.
[438] Statute of the International Court of Justice 1945.
[439] ibid.

In conclusion, a governing law clause is of high importance for the Parties in their dispute resolution. There are various aspects, which need to be taken into consideration by the parties, such as: whether or not the freedom of choice is restricted, the peculiarities of a chosen legal system and legislation and conflict of law provisions. Parties who pay attention to all of these concerns are better able to navigate future complexities in dispute resolution.

4. Key Dispute Resolution Tools

4.1. General information

For any contractual relationship, it is important to plan for the risk of a dispute arising, concerning any aspect of the contract, including the proper performance of contractual obligations.

Dispute resolution is an essential part of contractual relations, because it provides the parties with the ability to resolve their disputes fairly and efficiently.

The parties to a contract should carefully select the dispute resolution process. Specifically, parties should take into account the international scope and complexity of the sector at hand. It is essential for energy industry contracts to mitigate the risk of an ambiguous dispute clause being declared void by the courts.[440]

Key dispute resolution tools may be categorized as adjudicative (be it litigative or via arbitration) or consensual, such as through negotiation. Broadly speaking, there are basically two methods used to resolve contractual disputes: formal dialogue and informal dialogue. Through the informal dialogue a company's directors or senior management can meet with the involved parties and may seek to address the issue/s in good faith. This happens in the early stages of a disagreement. The formal dialogue process would involve legal representatives from the contracting parties.

Alternative Dispute Resolution (ADR) can be defined as a "*collective description of methods of resolving disputes otherwise than through the normal trial process*".[441] ADR methods include arbitration, negotiation, expert determination and mediation. While these methods do not primarily rely on courts to resolve the dispute, national courts are often required at some point to perform certain activities such as compelling the ADR, issuing interim orders or enforcing the ADR outcome.

In addition, dispute resolution tools may be further divided into three groupings depending on how the dispute is resolved.

- Resolution by the parties through a common agreement
- Resolution with assistance from an external party, such as a mediator

[440] P Roberts, *Gas Sales and Gas Transportation Agreements Principle and Practice* (Sweet and Maxwell, London, 2004) 314.

[441] Civil Procedure Rules 1998.

- Resolution through a party or institution empowered to reach a decision on the dispute (for example, an arbitration institution, adjudicators or independent experts)[442]

Generally, the main dispute resolution tools are the following: negotiation, mediation, independent expert determination, litigation, arbitration, international adjudication.

4.2. Negotiation

Negotiation can be defined as "*any form of direct or indirect communication whereby parties who have opposing interests discuss the form of any joint action which they might take to manage and ultimately resolve the dispute between them*".[443] Negotiations are reached through discussions made between the parties or their representatives without an involvement of the third party.

It is mostly an informal process and is usually used as the first step in dispute resolution clauses and is the most common in the oil and gas sector. Negotiation is a voluntary ADR tool, since there is no legal obligation to participate in it and to execute the outcome of this procedure.

Negotiation is also a confidential dispute resolution tool since **t**he parties have the option of negotiating publicly or privately and are not required to engage a third party. This can be beneficial in the case where none of the parties are interested in external parties becoming aware of sensitive matters of the dispute.[444]

Negotiation is advantageous since it is quite flexible and conducted by the parties themselves or by senior representatives. The parties are able to organize the negotiations by themselves in accordance with their own needs, including the determination of negotiation subjects, participants, safeguards, agenda, etc.[445]

Negotiations are cost-effective, requiring little preparation (comparatively) and their consensual nature makes them easy to conduct. The parties have total control over the process, controlling the outcomes without third party involvement. Nevertheless, in practice, negotiation is not a very effective dispute resolution tool as the success rate of the negotiations will depend on the skills of the negotiators, the strategies and tactics they will employ.

Negotiation can lead to poor outcomes, especially if the strengths and weaknesses of the case are not properly understood. As far as negotiations are consensual and non-binding, the negotiations must rely on the sole will of the parties to settle their disputes; this requires open and not entrenched positions.[446]

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[442] Lester Kurtz, Gandhi and His Legacies, (Encyclopedia of Violence, Peace, & Conflict (Second Edition), 2008).

[443] The Law Society of Upper Canada, Short Glossary of Dispute Resolution Terms (Toronto, 1992), 6.

[444] Dispute Resolution Reference Guide (Canada.ca, 2017), <https://www.justice.gc.ca/eng/rp-pr/csj-sjc/dprs-sprd/res/drrg-mrrc/03.html> accessed on 11 September 2020.

[445] Frank E.A. Sander, Nancy H. Rogers, Sarah Rudolph Cole. Dispute Resolution: Negotiation, Mediation, Arbitration, and Other Processes, Seventh Edition Chapter 8.

[446] Leonard L. Riskin, James E. Westbrook, *Dispute Resolution and Lawyers* (St. Paul, Minn., West Publishing Co., 1987) 214.

Further, *'the absence of a neutral third party can result in parties being unable to reach agreement as they may be incapable of defining the issues at stake, let alone making any progress towards a solution'*.[447]

Moreover, parties may be of unequal power and the weaker party(ies) may be placed at a disadvantage. Where a party with an interest in the matter in dispute is excluded or inadequately represented in the negotiations, the agreement's value is diminished, thereby making it subject to future challenges. In the absence of safeguards in the negotiating process, a participant or others could view the agreement outside the process as being inequitable, even though the substance of the agreement may be beyond reproach.

Even with the disadvantages of negotiations, there is one major advantage that may outweigh all of the disadvantages combined. That is, if negotiations work, then the parties can save enormous time, money and even the business relationship by avoiding the adversarial processes of arbitration and litigation.

4.3. Mediation

Mediation is a process in which a neutral mediator will facilitate the dispute settlement between the parties. In such cases, neither party is forced to use a mediator, nor are they forced to agree to a particular settlement. In some contractual arrangements, however, parties will specifically choose mediation as the first step in resolving a dispute and will therefore be bound by the terms of the contract to refer to mediation. Generally, mediation is described as a confidential process. It is up to the parties to jointly establish any limits. If it is decided that the mediation should be confidential, the parties and the mediator should sign a clause to that effect.

Mediation is a flexible, adaptable dispute resolution tool, which is normally contained in a written agreement. The mediator will conduct separate discussions with each party to understand the case and the parties' positions.[448]

Mediation could be beneficial in that the mediator will help the parties to see the strengths and weaknesses of the case, to step outside their entrenched positions, to find common grounds and concessions between the parties. Being confidential and conducted without prejudice, it allows the parties to have an open dialogue, and this is useful when the monetary value is not high enough to justify a more formal dispute resolution tool.

Some scholars think that implementation of any agreement reached through consensus is more likely to be achieved than where a unilateral judgment is imposed. In addition, mediation has an impressive success rate, according to figures the resolution's rate is near 90% when the parties endorse the mediation process.[449]

[447] Dispute Resolution Reference Guide (Canada.ca, 2017), <https://www.justice.gc.ca/eng/rp-pr/csj-sjc/dprs-sprd/res/drrg-mrrc/03.html> accessed on 11 September 2020.

[448] Frank E.A. Sander, Nancy H. Rogers, Sarah Rudolph Cole (n. 445) Chapter 9.

[449] Leonard L. Riskin, James E. Westbrook (n 446) 220.

However, a positive outcome of mediation often depends on the skills of the mediator. Mediation costs can increase if the mediator isn't skilled or if the parties might have been able to resolve their dispute by negotiation. Also, there has historically been little procedural protection for the parties during mediation and there were no guarantees that agreement will be enforced by the disputing parties.

However, in 2019, The United Nations Convention on International Settlement Agreements Resulting from Mediation, also known as the Singapore Convention on Mediation came into effect. At signing it had signatories from all over the world including China, Saudi Arabia, The United States, The Congo, Nigeria, and Uganda to name a few. The purpose of this convention is similar to that of The New York Convention for the Recognition and Enforcement of Foreign Arbitral Awards. While there is much to be seen on how popular this convention will be with contracting parties, it appears to be a step in the right direction for transnational dispute resolution enforceability and maybe even the missing piece of the puzzle for handling transnational commercial disputes.

Mediation for the oil and gas sector is often organized on the platforms of established international organizations, such as the ICC. Such international organisations develop rules and procedures for mediation. According to the ICC Mediation Rules, *"mediation is a flexible settlement technique, conducted privately and confidentially, in which a mediator acts as a neutral facilitator to help the parties try to arrive at a negotiated settlement of their dispute. The parties have control over both the decision to settle and the terms of any settlement agreement".*[450] Apart from the definition of mediation, the rules include provisions on fees and costs for the mediation, the process of selection of the mediator, etc.

Using an international organization's mediation platform provides a reliable process with the scope of guarantees for both disputing parties.[451]

4.4. Expert Determination

Expert determination is a form of alternative dispute resolution through which the parties to a contract ask an independent expert to provide a binding decision on a dispute. Typically, it is used for commercial disputes where an economical valuation of the processes involved in a dispute or technical assessment is required.[452] Expert determination may not be suitable for many oil and gas disputes where the interpretation of laws and the substantive rights and obligations of the parties under such laws lay at the heart of the disputes. Most contracts will provide that expert determination is binding, as it is for most commercial contracts.

[450] ICC Mediation Rules (2014) <https://iccwbo.org/dispute-resolution-services/mediation/mediation-rules/> accessed 26 November 2019 accessed on 26 November 2019.

[451] ICC Mediation guaranties notes (2018) <https://cms.iccwbo.org/content/uploads/sites/3/2014/12/icc-mediation-guidance-notes-english.pdf> accessed on 26 November 2019.

[452] Dispute Resolution Mechanisms in the Petroleum Sector, (Extractives Hub), <https://www.extractiveshub.org/topic/view/id/6/chapterId/493> accessed on 11 September 2020.

It is also worth noting that the expert may have the discretion to appoint legal advisers if provided for in the contract appointing him. In the majority of cases, the outcome of the expert determination is binding and final, unless parties agree otherwise. For example, by providing for the right of the parties to challenge the determination on the grounds of fraud or manifest error. Expert determination provides a quick and often inexpensive resolution mechanism, maintaining confidentiality.[453]

Expert determination is often a less formal procedure than litigation or arbitration. There may or may not be a right to statutory appeal depending on what national laws are in effect. [454] Simply, not all countries have national laws that require expert determination to be binding and enforceable like arbitration.

Expert determination can be beneficial because it resolves the dispute in private and is generally cheaper, quicker and less formal than arbitration or litigation. It also allows the parties to continue their business relationship by resolving issues through a less adversarial process.

It is necessary to take into consideration that experts will not have the power to award costs. The parties will usually bear their own legal costs and will also be responsible for paying the expert's costs.[455]

Lastly, expert determination is generally not suitable for disputes where factual witness evidence is contested. If the parties agree, the expert may conduct their own investigations into the dispute and can take anything relevant into account, but only within the bounds of what the parties have agreed.

4.5. Litigation

Litigation refers to lawsuits, the process of filing claims in a national or foreign court and going to trial. When the parties do not have the desire to include an alternative dispute resolution they have to resort to the national or a foreign court to settle their dispute. The international nature of the oil and gas industry makes common the fact that the parties are domiciled in different countries and have their assets in their home country.

Litigation often does not require any contractual provision, as local courts are usually competent to examine oil and commercial disputes in the location of the oil and gas assets if the parties fail to determine their dispute resolution mechanism. They do this by application of conflict of law provisions, which determines the court of which country the dispute is to be resolved.

The national courts have formal rules for settlement of disputes and their decisions are binding, the system is technical and the judges exercise most of the control over the proceedings as well as the outcome of the litigation. Litigation provides the parties with a forum in which they are not able to influence

[453] John Kendall, Clive Freedman, *Expert determination* (Sweet & Maxwell 2001) 56.

[454] ibid 19.

[455] John Kendall, Clive Freedman (n 453) 86.

the process or the conduct of their dispute. The national substantive and procedural laws will apply and the courts follow a strict procedure.

Most justice systems have an extensive appeal system that can be accessed in the event that a party is dissatisfied with the first instance decision by the lower court. Gaining leave to appeal is not automatic and may be limited to points of law only. In any event, pursuing an appeal, clearly has the potential of slowing down the final resolution of the matter in question and is likely to increase legal costs considerably.

4.6. Arbitration

Arbitration is the most common dispute resolution tool in oil and gas contracts. Arbitration can be defined as a "*tailor-made mechanism for the resolution of commercial disputes before a neutral third party (arbitrator) without direct reference to a court of law*". [456]

Arbitration is a contractual dispute resolution tool. The parties agree to entrust their dispute to an arbitrator, binding themselves to accept the decision that is reached. The parties exclude the original competence of a national court and subject themselves to a specific legal procedure. It is a special forum selection clause that sets both the procedure and the *situs* of the suit.

Arbitration is private and confidential, an advantageous feature to the resolution of certain types of disputes where the privacy of both the proceeding and the outcome is desired. One of the main features of arbitration is neutrality. By removing from the parties the possibility of subjecting their disputes to the national court, arbitration avoids the race to court[457] phenomenon that is present in many litigious matters with respect to a decision on the substance of the dispute. The arbitration costs applicable will depend on the form of the arbitration chosen by the parties i.e., whether an institutional or ad hoc arbitration is provided for (a more detailed discussion on this and other issues will follow in the next chapter).

Moreover, an arbitral award may be either binding or non-binding depending on the arbitration agreement. Usually, an arbitral award will be considered to be a final and binding judgment, which may not be appealed. That notwithstanding, national laws may allow the parties to challenge the decision of the arbitrator in limited circumstances as prescribed in domestic and international laws interpreted by local courts. Finally, arbitration is supposed to be a faster dispute resolution tool compared to matters prosecuted in the local courts.

Most international investment agreements provide rules enabling investors to invoke arbitration claims directly against states, which go by the name of 'investor-state arbitration'. Nevertheless, this type of

[456] Dispute Resolution Mechanisms in the Petroleum Sector, (Extractives Hub), <https://www.extractiveshub.org/topic/view/id/6/chapterId/493> accessed on 11 September 2020.

[457] Although in some cases, parties still do and the other party has to request the court to recognise the arbitration agreement.

arbitration can be described as an "'*asymmetrical' dispute resolution mechanism*", since only an investor can bring a claim to arbitration against the host state.[458]

In some cases, arbitration cannot be initiated without exhausting other dispute resolution mechanisms, such as mediation. Legal provisions (mostly contractual) that create this type of tiered approach to dispute resolution, seek to encourage parties to reach amicable agreements without first having to enter into such a serious procedure as arbitration. In conclusion, arbitration is usually considered as the most common and effective dispute resolution tool in the oil and gas sector.

4.7. International adjudication

"*International adjudication is a method of international dispute settlement that involves the referral of the dispute to an impartial third-party for binding decision, usually on the basis of international law*". [459]

International adjudication is generally used by the oil and gas operators in cases concerning international marine law. Thus, according to the UNCLOS, the signatories can resolve their disputes via the International Tribunal for the Law of the Sea[460], the International Court of Justice, or to arbitral tribunals meeting different requirements, provided in the convention.

However, a state may not accept the jurisdiction of several international adjudicative bodies for the various categories of disputes, such as boundary disputes or disputes concerning continental shelves or Exclusive Economic Zones.[461]

Sometimes the parties can provide a multi-step dispute resolution clause, which is a "*contractual provision that requires the parties to an agreement to escalate a dispute through varying levels of management or other processes, such as mediation, using agreed-upon procedures before litigation or arbitration may proceed*".[462]

It is of paramount importance for the parties to define in a clear way what the "Dispute" is and how they should resolve it. The word "Dispute" is used to define the scope of the agreement to resolve. Generally speaking, it should be defined as broadly as possible to avoid disputes over its meaning.

If the parties intend that only certain disputes will be subject to arbitration, they must delineate what disputes are to be arbitrated (or what disputes are not to be arbitrated or are to be submitted to some other form of dispute resolution) with great precision. Failure to do so will almost guarantee litigation

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[458] ibid, Redfern A, Hunter M, Blackaby N and Partasides C, *Law and Practice of International Commercial Arbitration*, (Sweet and Maxwell 2004) 25.

[459] Richard Bilder, *'Adjudication: International Arbitral Tribunals and Courts"* in Peacemaking in International Conflict: Methods and Techniques, (Washington DC: United States Institute of Peace Press, 1997), 155.

[460] United Nations Convention on the Law of the Sea 1982.

[461] Dispute Resolution Mechanisms in the Petroleum Sector, (Extractives Hub), <https://www.extractiveshub.org/topic/view/id/6/chapterId/493> accessed on 11 September 2020.

[462] John DeGroote, 'Settlement The Way Your Clients Want It' (Dallas Bar Association's Bench Bar Conference, 2013) <https://www.mediate.com/articles/DeGrooteJbl20100322a.cfm#:~:text=A%20multi-step%20dispute%20resolution%20clause%20is%20a%20contractual%20provision,litigation%20or%20arbitration%20may%20proceed.> accessed on 11 September 2020.

or arbitration over whether a dispute, once it arises, belongs in the courts, in arbitration, or somewhere else, such as mediation or expert determination.

4.8. Litigation vs ADR

The question of whether litigation is a more effective dispute resolution tool than ADR in the oil and gas sector (and vice versa) is debated by stakeholders, lawyers and authors.

Some believe that "*ADR does not declare or develop law, does not happen in full view of the public, and may not even yield a resolution if the process breaks down*".[463] Consequently, proponents of this opinion do not believe that ADR is an effective a replacement for litigation.

Argument as to why litigation is preferable is often based on the fact that litigation provides resolutions which are binding.[464] Proponents of litigation argue that litigation affords greater legal protection particularly when contrasted with the situation in arbitration where the award issued by the arbitrator is likely to be subject to the jurisdiction of the local courts during enforcement proceedings or where an application has been made to set aside the award.

On the other hand, supporters of ADR argue that these recognized alternative fora are more appropriate for dispute resolution in oil and gas relations, given that they exclude or minimize the interruption of states in the disputes, that could result more readily through national courts and domestic legislation. They also argue that ADR provides investors with several guarantees, such as impartiality and neutrality of the decision maker.

It is worth noting, however, that there are some situations, where ADR cannot be applicable. Disputes involving abuses of human rights, serious criminal behaviour, and cases involving public values; such matters are best addressed through litigation where the state has a more direct role in supervising the rights and responsibilities in question[465]which can also be subject to effective domestic and international scrutiny.

5. Summary

In conclusion, there is quite a diverse range of dispute resolution tools, which parties to an agreement in the oil and gas sector can choose from to resolve their disputes. While selecting an appropriate tool, the parties should consider the following: whether it is to be obligatory or voluntary, the characteristics of each dispute resolution tool (such as time-consumption aspects, costs, consequences, enforceability) and advantages or disadvantages of the various options. The parties may even opt to agree to a multi-step dispute resolution process to provide an ability to resolve the dispute in the most beneficial way.

[463] Caroline Maughan, & Julian Webb, *Lawyering Skills and the Legal Process* (Cambridge University Press) 312.

[464] Louise Elmes, *Arbitration or Court Proceedings* (Superyacht Business, 2011) <www.superyachtbusiness.net> accessed on 26 November 2019.

With respect to the oil and gas industry where disputes are likely to arise between various parties and stakeholders (including government entities), arbitration is widely considered to be an effective, efficient and independent dispute resolution tool. Nevertheless, all of the different methods of resolving disputes mentioned above have been applied to oil and gas related disputes and provide parties with an extensive range of dispute resolution options to help solve any disagreements arising during their operations.

Key Chapter Points

After reading this Chapter you should understand the following points: The aim and general idea of governing law and dispute resolution clauses in oil and gas agreements; freedom of choice in contractual relations; the principle methods of freedom of choice restriction, which include: absolute prohibition for parties dealing with governmental entities to choose the governing law in the contract; partial restriction, which occurs under the rules of public policy, ***ordre public*** *and statutory control; partial restriction in certain areas of law, which may affect a state's national security, human rights, economic stability and environmental issues. Further, you should understand the main aspects of Common law and Civil law systems with references to the UK, US, Australian and Canadian legal systems; the description of major conflict of laws provisions, such as* ***lex patriae, lex domicilii, lex loci actus, lex loci contractus, lex loci solutionis****; the definitions, main features, as well as, advantages and disadvantages of basic dispute resolution tools, such as: negotiation, mediation, expert determination, litigation, arbitration and international adjudication; and finally some differences between alternative dispute resolution and litigation.*

CHAPTER 8: Arbitration

This chapter discusses what is often considered to be the most important alternative dispute resolution tool: arbitration. It explains why arbitration as a means of ADR is both important and popular within the petroleum industry. It provides a definition of arbitration, the forms that it may take, and explains why, notwithstanding some drawbacks and its complexity, arbitration continues to be deemed to be one of the most beneficial dispute resolution mechanisms. The chapter will also describe the differences between institutional and ad hoc arbitration, highlighting the advantages and disadvantages of both types. The chapter will highlight some of the major arbitration institutions (Singapore, Hong Kong, London, Cairo, ICC, PSA, ICSID, Stockholm etc.) at international and regional levels and describes some of the common features of arbitration and its procedural steps. The final part of the Chapter deals with the development of arbitration laws and institutions within African states in context, highlighting some distinct and recuring features surrounding issues of increased access, expertise, visibility and representation.

Disputes in the oil and gas industry occur for countless reasons. Therefore, when considering best practices for the resolution of oil and gas disputes, it is important to remember that there is no particular method that will be appropriate to all circumstances. Some disputes will be more appropriate for resolution through a particular process or in a particular forum than others.[466]

Disputes can be resolved either by the parties themselves, or by the parties with the help of a third party (e.g., a mediator), or directly by third-party decision makers (judges, arbitrators etc.). Today, there is a growing consensus on the potential contribution that dispute settlement mechanisms make to sustainable development. However, this is on the basis that comprehensive and recurring reforms are undertaken, to ensure that the system takes into account the interests of all stakeholders.

Arbitration has long been used to resolve commercial disputes. It is now gaining popularity as the most preferable form of ADR in the oil and gas industry.[467] Despite a few notable oilfield service disputes, which recently have found their way into the traditional domestic court system, international arbitration remains the dispute resolution mechanism of choice for upstream oil and gas contracts.[468] The Association of International Petroleum Negotiators emphasized international arbitration as the

[466] J. Bowman, 'Best Practices for Effective and Quick Dispute Resolution in the International Oil & Gas Industry' < https://www.lexology.com/library/detail.aspx?g=0ad0eaaa-24db-4cc1-b927-e449c252be4d> accessed 14 November 2019.

[467] Legal Information Institute, "Alternative Dispute Resolution" (2017) < https://www.law.cornell.edu/wex/alternative_dispute_resolution> accessed 12 November 2019.

[468] M. Beeley, S. Stockley, *The Guide to Energy Arbitrations - Third Edition* (2019), < https://globalarbitrationreview.com/edition/1001292/the-guide-to-energy-arbitrations-third-edition> accessed 10 November 2019.

"primary method of dispute resolution" when crafting the 2017 Second Model Dispute Resolution Agreement.[469]

The effectiveness and attractiveness of arbitration as the preferred ADR mechanism was highlighted in the report published by Queen Mary University of London (QMUL) on 22 November 2019.[470] The report focused on the resolution of international construction disputes through arbitration. According to the report, there is a tendency to apply for interim decisions on such disputes. With respect to increasing efficiency, the authors state that "a more effective use of interim orders in arbitration can in practice lead to the parties resolving these disputes at an earlier stage".[471]

In addition to the above, a further study published by QMUL, in partnership with the global law firm White & Case LLP, revealed that 90% of the respondents surveyed preferred international arbitration as a way to resolve cross-border disputes.[472] This finding shows a significant increase from QMUL's first international arbitration survey in 2006, where the figure was 73%.[473]

1. What is International Arbitration?

It is necessary to distinguish between international arbitration and domestic arbitration. In a domestic arbitration, the arbitration proceedings, the subject matter of the contract, and the merits of the dispute will be governed by a particular national law. Alternatively, the cause of action for the dispute will arise in a particular state or the parties will be subject to the jurisdiction of a particular state. On the other hand, with international arbitration, there is a cross-border element involving entities based in two or more different countries and subject to the jurisdiction of different states.

There is also a difference between investment and commercial arbitration. Commercial arbitration deals with the resolution of disputes between parties to contracts with an arbitration clause or agreement, while the investment arbitration settles disputes between host nations and investors in those nations.[474] This chapter is mostly focused on international commercial arbitration.

Arbitration refers to a "*private form of dispute resolution, conducted before an impartial tribunal, which originates from the agreement of the parties but which is regulated and enforced by the laws of a particular state*".[475]

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[469] See, for example: *Seadrill Ghana Operations Ltd v. Tullow Ghana Ltd* [2018] EWHC 1640 (Comm), and *Transocean Drilling UK Ltd v Providence Resources PLC* [2016] EWCA Civ 372.

[470] See at: <https://www.qmul.ac.uk/media/news/2019/hss/arbitration-seen-as-the-best-process-for-resolving-international-construction-disputes.html) accessed 25 November 2019.

[471] ibid.

[472] White&Case, 'International Arbitration Survey: Improvements and Innovations in International Arbitration' (2015) <http://www.arbitration.qmul.ac.uk/media/arbitration/docs/2015_International_Arbitration_Survey.pdf> accessed 22 October 2019.

[473] Queen Mary University of London. 'International arbitration: Corporate attitudes and practices' (2006) < http://www.arbitration.qmul.ac.uk/media/arbitration/docs/IAstudy_2006.pdf> accessed 20 October 2019.

[474] Latham & Watkins, "Guide to International Arbitration" (2017) < https://www.lw.com/thoughtleadership/guide-to-international-arbitration-2017> accessed 22 October 2019.

[475] Ibid.

In other words, arbitration is a form of ADR which gives parties to an agreement the opportunity to resolve their disputes *"outside of the traditional court system".*[476]

Most of the states will:

- demand that non-state parties fulfil their contractual obligation to arbitrate;
- provide for partial judicial control over the arbitral proceedings;
- support the enforcement of arbitral awards in a way close to the national court judgments.[477]

Prior to arbitration two traditional methods of settling disputes between an investor and the host state existed: diplomatic protection and action in domestic courts.[478] However, gaps which occurred while using these methods has resulted in offering investors direct access to effective international procedures – arbitration. This means of ADR is advantageous for both: states and investors. States are able to demonstrate development to their investment climates and gain more investments by including international dispute settlement procedures in their contracts. At the same time investors are reassured of their abilities to obtain an effective remedy for their disputes.[479]

Arbitrators or arbitral tribunals are persons who resolve the dispute and render binding decisions.[480] In this regard, the arbitrators seem to be very similar to judges, but that is not the case. Parties generally select the arbitrators themselves and have a degree of control over the individuals who resolve their case. It is the parties' agreement that establishes the authority of the arbitrator to arbitrate (this can also be provided for in the national legislation). These facts do not mean that arbitrators are less professional than judges in court. On the contrary, only highly qualified experts in law and/or subject matter experts can become arbitrators, especially in international cases.[481]

Binding expert determination can be considered as something very similar to the arbitration process; however, it is necessary to distinguish them and to see them as separate remedial options that parties may even combine as distinct dispute resolution mechanisms within the terms of the contract. The main difference between the two mechanisms is that expert determination relies on the presiding expert's own knowledge to rule on the given dispute. Arbitrators can also be chosen for a particular case due to their specific related legal experience; nonetheless, primarily they should make a decision based on the governing law and the parties' submissions.[482]

From a practical point of view, the difference between arbitration and binding expert determination can be very substantial. Law does not usually regulate expert determination specifically, while the arbitration procedure is usually governed in detail by national arbitration laws. On this basis, it may be quite

[476]Pinsent Masons, 'Institutional vs. 'ad hoc' arbitration' (2011) <https://www.pinsentmasons.com/out-law/guides/institutional-vs-ad-hoc-arbitration> accessed 12 November 2019.

[477] ibid.

[478] Rudolf Dolzer, Christoph Schreuer, *Principles of International Investment Law (2nd Edition)* (2012), Oxford University Press, <https://opil.ouplaw.com/view/10.1093/law/9780199651795.001.0001/law-9780199651795> accessed 30 November 2019.

[479] Ibid.

[480] Pinsent Masons, (n 476).

[481] Latham & Watkins, (n 474).

[482] ibid.

difficult to enforce an expert determination decision, and in this case, a new action would need to be brought in the appropriate jurisdiction.[483]

The relevant question is why parties to a contract often prefer international arbitration, rather than other methods of dispute settlement (e.g., litigation in national courts or mediation), The answer is probably determined by the nature of the petroleum field itself. The oil and gas industry involves complex, risky and expensive operations, which usually last for very long periods of time; thus, special contracts are deployed to govern the relationships among the various parties engaged in these operations. By virtue of these complex operations and interrelated activities between multiple entities, it appears as though the oil and gas industry, compared toother sectors, are susceptible to greater range of disputes. Disputes may arise in areas such as international maritime boundary claims; equipment-related claims; claims over jurisdiction claims relating to quantity and quality of goods; insurance issues; and hedging, etc.[484] In order to progress oil and gas operations effectively minimizing disruption, it is essential that the parties agree to the appropriate dispute resolution mechanisms inclusive of formal and informal measures.

In the oil and gas sector, international arbitration is the preferred method of resolving disputes for the following reasons:

1.1. Enforceability

Regarding agreements that are international and cross-border in substance, the ability to enforce a decision is far greater, when rendered by an arbitral tribunal, rather than by the national courts. It is an obvious point that no party to a dispute desires obtaining a decision that cannot be enforced or is difficult to enforce. This fact leads to parties' choosing arbitration as a means of resolving disputes, which can arise out of their contractual relations. The United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (the New York Convention) is deemed to be the most widespread (to date, 164 countries are party to the New York Convention) and significant treaty of all the international enforcement agreements.[485] Parties to this Convention broadly agree to enforce arbitral awards made in other contracting states.[486]

Under the New York Convention, Contracting States are prohibited from imposing more difficult conditions in recognition and enforcement than would be necessary in respect of the New York Convention.[487] The New York Convention is applicable to the *"recognition and enforcement of arbitral awards made in a state other than the state where the recognition and enforcement of such awards are sought and arising from differences between persons"*.[488] It also applies to awards not categorised as domestic awards in the state where their recognition and enforcement are pursued.[489] It is little wonder then that the New York

[483] ibid.

[484] Connerty, A., 'Dispute Resolution in the Oil and Gas Industry' Vol. 20 No. 2 Journal of Energy and Natural Resources, 2002.

[485] Latham & Watkins, (n 474).

[486] The United Nations Convention on Recognition and Enforcement of Foreign Arbitral Awards (The New York Convention) (1958), Introduction, Objectives.

[487]ibid, Articles III and V.

[488]ibid, Article 1.

[489]ibid.

Convention is considered to be the most important international treaty in international commercial arbitration.[490]

1.2. Confidentiality

Usually under the arbitration agreement, parties agree to keep arbitration proceedings confidential, including all documents, evidence, orders and awards. For this reason, arbitration is seen as advantageous compared to litigation, which is usually open to the public, save on few exceptional circumstances.[491]

The precise degree of confidentiality in the arbitration procedure will differ from case-to case; however, the contractual nature of the process still provides more privacy than would be the case in litigation in the national courts. In other words, parties can establish (more or less) the degree of confidentiality they want in their arbitration agreement, to the extent that does not require a court procedure to enforce it.[492]

1.3. Neutrality

If within the performance of an international contract, a breach occurs that results in an international dispute, it is unlikely that the parties would wish to subject the dispute to the local courts of each other's state. Here arbitration procedure permits them to choose a "neutral" figure.[493]

Oil and gas contracts frequently involve parties from different national jurisdictions. In practice, no party to an oil and gas contract would have a strong desire to be subject to the national jurisdiction of another party, which would be the case if the parties were to submit a dispute to the courts of a host country. In order to avoid 'home country advantage' of the other party, it is common for parties to choose arbitration in order to achieve neutrality of the forum.[494] Within an arbitration process, parties agree in the contract or after the dispute has arisen for neutral arbitrators, a neutral arbitral institution, neutral rules and a neutral seat of arbitration. The parties can sometimes agree to have non-neutral arbitrators; however, this is increasingly less common.

1.4. Flexible Procedure

Arbitration rules are known to be less complex and more flexible as compared to national court rules, and generally speaking are regarded as easier to understand and to adapt for parties from different jurisdictions.[495] It is, however, usual for parties to choose procedures that are similar to national court hearings, with the ability to change substantial aspects where this is deemed appropriate. For instance, parties may waive rights of appeal in their arbitration agreement. It is essential to note, in cases where parties cannot reach an agreement in advance on some point, this can result in serious problems during the arbitration procedure (e.g., delays).[496]

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[490] Connerty, A., (n 484).

[491] Rajora, V., 'Confidentiality in Arbitration' (Institute of Law, Nirma University), Social Science Research Network < http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1572221 > accessed 20 October 2019.

[492] Latham & Watkins, (n 474).

[493] ibid.

[494] Moses, M. L., *The Principles and Practices of International Commercial Arbitration, 2nd Edition*, Cambridge: Cambridge University Press, 2012 .

[495] Latham & Watkins, (n 474).

[496] ibid.

1.5. Possibility to Choose the Arbitrators

As mentioned above, one of the striking features of arbitration is the opportunity to choose (nominate, or have some input on) persons who adjudicate the matter. This is in complete contrast to litigation before the national court, where neither the state, nor commercial party are entitled (in theory) to influence, to any extent, the choice of the judge/s hearing the matter.[497]

That said and despite the many advantages, inclusive of the wide discretion afforded to the parties, arbitration may not fit every single dispute and every agreement. It may be the case that many practitioners and academics prefer this type of ADR to others and to court proceedings, however, it should always be a carefully balanced and considered decision as to whether to choose arbitration as the mechanism for potential dispute settlements.[498]

2. Institutional and Ad-hoc International Arbitration

International commercial arbitration can either be institutional or ad-hoc arbitration. Whilst under the institutional arbitration process the parties to a dispute will agree to submit the dispute to a particular arbitral institution, in the case of an ad-hoc arbitration process, the dispute will not be administered by an established arbitral institution.[499]

In making the decision to resolve a dispute by way of arbitration, the parties should decide whether the arbitration should be institutional or ad-hoc.

An ***institutional arbitration*** refers to the arbitration procedure governed by the specialized body, which administers the whole dispute settlement process. These bodies ("institutions") have their own arbitration rules. These rules establish both the form of administration and framework for the arbitration.[500] There are institutions which are quite commonly chosen by parties in order to resolve their disputes: the International Centre for Settlement of Investment Disputes (ICSID); London Court of International Arbitration (LCIA); International Chamber of Commerce (ICC), The American Arbitration Association's International Center for Dispute Resolution (AAA), Permanent court of arbitration (PCA), The Swiss Chambers'Arbitration Institution (SCAI), The Arbitration Institute of the Stockholm Chamber of Commerce (SCC), Singapore International Arbitration Centre (SIAC), Hong Kong International Arbitration Centre (HKIAC), Cairo Regional Centre for International Commercial Arbitration (CRCICA), The Arbitration Foundation of Southern Africa (AFSA), The Regional Centre for International Commercial Arbitration – Lagos (RCICA), the Mauritius International Arbitration Center (MIAC); Nairobi Centre for International Arbitration (NCIA); the Kigali International Arbitration Centre among others. As for the choice of the particular institution, this is usually established either in the arbitration agreement, or in the main contract.[501]

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[497] ibid.

[498] ibid.

[499] Walde, T.W., 'Negotiating for Dispute Settlement in Transnational Mineral Contracts: Current Practice, Trends, and an Evaluation from the Host Country's Perspective' (2003) Vol. 1, Issue 33, Journal of International Law and Policy, 49-50.

[500] Pinsent Masons, (n 76).

[501] ibid.

In administering an arbitration, the institution will appoint an arbitrator where the parties do not agree, as well as provide secretarial services to assist with the administration of the arbitration.

Most institutions will have a panel of qualified individuals to appoint as arbitrators. This will ensure that arbitrators with the relevant skills, experience, nationality and backgrounds requested by the parties or desired, based on the nature of the dispute, hear and determine the dispute.

Additional benefits of institutional arbitration proceedings are that they will be subject to predetermined rules and procedures in relation to timelines, filing of documents and their formats, the delivery of an award and the costs chargeable by the tribunal.[502] This creates the type of structure that encourages arbitration proceedings to be conducted timely and efficiently.

There are some disadvantages to institutional arbitrations. For example, parties will have to bear administrative charges and costs applicable to the use of the facilities and resources provided by the institution. Such administrative charges can be substantial, particularly where the subject matter value is significant. This is because, in most cases, administrative charges are calculated based on a percentage of the subject matter value. Further, the timelines provided under the rules of the institution may be unfavourable to the parties in the dispute.[503] Such rules may be applicable to a particular trade or industry, but not to the existing or prospective needs of one or more of the parties.

Despite all of the substantial advantages of institutional arbitration, parties should take care in selecting and deciding which institution to designate in their arbitration agreement. They should consider the nature and value of the dispute, rules of the institution (particularly whether such rules are in line with the latest developments in international commercial arbitration), and the past record and reputation of the institution.[504]

Regardless of when the arbitration agreement is concluded – before or after the dispute arises – it is enough if there is a provision stating that "disputes between the parties will be arbitrated" and the precise arbitration institution is determined. Problems may arise when parties are unable to reach consent on some precise questions, such as enforcement details, appointment of the arbitrators, how proceedings are to be conducted etc. In this case, all of these details will be regulated by the law of “seat” of the arbitration.[505]

As stated above, an ***ad-hoc*** arbitration is not administered by an institution.[506] This means that various aspects of the arbitration will have to be agreed to by the parties.

[502] ibid.

[503] ibid.

[504] ibid.

[505] Reşit Hukuk Ve Danismanlik, ‘Comparison of Ad hoc arbitration and Institutional arbitration’, https://resithukuk.com/2018/09/22/comparison-of-ad-hoc-arbitration-and-institutional-arbitration/ accessed 2 November 2019.

[506] Arkin, H., ‘International ad hoc Arbitration: A Practical Arbitration’ (1987) Vol. 5 Issue 15, International Business Law p. 5.

The ad hoc arbitration proceeding may not be entirely removed from the institutional one. Sometimes parties may encounter difficulties in appointing an appropriate arbitrator, in this case (and in other circumstances during ad-hoc proceeding) parties may apply to a specialised institution.[507]

Provided the parties are able to co-operate on several aspects of the arbitration proceedings, ad hoc proceedings have a number of advantages. For example, ad hoc proceedings offer flexibility to the parties who can make decisions on the procedure and timelines most suitable to their dispute. Further, the parties' general litigation costs will be reduced as there will be no administrative expenses payable to an arbitration institution. This factor alone provides an excellent incentive to use the ad hoc procedure.[508]

Properly structured, ad-hoc arbitration is likely to be more cost effective and arguably more suitable for smaller claims, and/or where cost considerations are of paramount importance. It should be noted, however, that the effectiveness of the ad-hoc arbitration process, relies more heavily on the arbitrator's organizing abilities and less so on those of the parties.[509]

A notable disadvantage in the ad hoc process includes the parties' willingness to agree on the arbitration procedure at a time when they are already in dispute, which impacts the effectiveness of the arbitration.[510] At the dispute stage, it is likely that the parties will have different expectations and understanding as to how the arbitration should proceed to suit their specific needs.

The failure of the parties to agree on applicable procedures and key aspects of the proceedings will delay the progress of the proceedings and may lead to an increase in costs. In these circumstances, as further highlighted below, an ad hoc process will be disadvantageous to the parties as it may not prove to be less expensive than an institutional arbitration. It is therefore advisable for the parties to agree on key arbitration terms before the dispute arises.

Another disadvantage is that the arbitration process will require more effort, cooperation and expertise from the parties in order to determine the rules that will govern their arbitration.

It is also worth highlighting the UNCITRAL Rules, since ad-hoc arbitration is very often based on these Rules. The United Nations Commission on International Trade Law adopted these Rules with the initial aim of creating a neutral alternative to the other major rule systems. Nevertheless, they have become the rules of choice used not only by parties to commercial contracts, but also in contractual relations involving individuals and states. For instance, UNCITRAL Rules applied to the Iran-US Claims Tribunal Rules and to a number of BITs.[511]

The UNCITRAL Rules are not administered by any particular institution. However, parties who choose these Rules, in general determine an "appointing authority" to oversee the appointing process, with the

[507] Reşit Hukuk Ve Danismanlik, (n 505).
[508] Pinsent Masons, (n 476).
[509] ibid.
[510] ibid.
[511] Latham & Watkins, (n 474).

power to appoint the arbitrator where the process breaks down and/or to deal with challenges to appointments. Specialised arbitral institutions may agree on arbitration procedures using the UNCITRAL Rules as applicable law as well, but in the majority of cases, it would lead to additional costs for the parties.[512]

When any dispute arises, parties sometimes choose ad-hoc arbitration based on its presumed lower cost, since institutional arbitration requires far more costs. Nonetheless, it is important to note, that in certain circumstances benefits that can be taken from the services of the arbitral institution can outweigh the required costs. It is especially true for complex, international disputes with many procedural issues involved. Further, if parties apply to ad-hoc arbitration, it raises the possibility of the national court's intervention in the process, which can be a drawback.[513]

Taking everything into account, it can be said that both types of international arbitration (either institutional, or ad hoc) entails its own complexity. Ad hoc arbitration is suitable if parties want to be masters of the arbitration process, whereas institutional arbitration is suitable if parties want a degree of experienced supervision. It is difficult to say which of these two types of arbitration is better as it relates more to the choices and needs of the parties.

3. Arbitration Institutions

3.1. International Chamber of Commerce (ICC)

The ICC is one of the *"leading providers of dispute resolution services for individuals, businesses, states, state entities and international organizations seeking alternatives to court litigation"*.[514] The ICC is based in Paris; however, it administers arbitration proceedings all over the world.

ICC arbitration is characterised by flexibility and efficiency in dispute resolution procedure resulting in binding and final decisions subject to enforcement worldwide.[515] The ICC Rules of Arbitration are used all around the world to settle disputes. They *"define and regulate the management of cases submitted to the International Court of Arbitration"*.[516]

It should also be mentioned that Article 19 of the ICC rules provides that no party shall make new claims or counterclaims that fall outside the terms of reference without authorisation by the tribunal.[517] Therefore, in order for the arbitration to proceed smoothly, the disputing parties need to do considerable work at an early stage to ensure that the terms of reference fully reflect their disparate positions. The process of early analysis of claims and definition of issues, although having obvious cost consequences, severely restricts the possibility of last-minute amendments to the case.

On the other hand, unlike other institutions, the ICC monitors the entire arbitral process—from the initial request for arbitration to scrutiny of the draft final award. There are features which distinguish the

[512] ibid.

[513] ibid.

[514] Belarusian Chamber of Commerce and Industry, 'International Chamber of Commerce', < https://www.cci.by/en/content/international-chamber-commerce> accessed 1 November 2019.

[515] International Chamber of Commerce (ICC), see at < https://iccwbo.org/contact-us/> accessed 1 November 2019.

[516] ICC, Arbitration Rules.

[517] ICC Rules, Article 19.

ICC from other arbitral institutions. First and foremost, the Court of Arbitration scrutinises every ICC arbitral award, this means the award is not given to parties until the Court has reviewed it.[518] The second feature is that before the commencement of the arbitration the parties are required to fill out a document called Terms of Reference which includes the following lists of items, summary of claims and reliefs sought, names of parties, venue of arbitration, the rules and other information relating to discovery or scheduling.[519] This allows parties to the dispute to know the parameters of the arbitration from the beginning.

3.2. The International Centre for Settlement of Investment Disputes (ICSID)

The International Centre for Settlement of Investment Disputes (ICSID or the Centre), based in Washington DC, USA and operating under the auspices of the World Bank, was established by the Convention on the Settlement of Investment Disputes between States and Nationals of Other States (the ICSID Convention).[520] The ICSID Convention is now ratified by 154 States all over the world. In accordance with the provisions of the Convention, ICSID provides *"facilities for conciliation and arbitration of investment disputes between Contracting States and nationals of other Contracting States"*.[521]

The ICSID Regulations involve:

- Administrative and Financial Regulations;
- Rules of Procedure for the Institution of Conciliation and Arbitration Proceedings;
- Rules of Procedure for Conciliation Proceedings; and
- Rules of Procedure for Arbitration Proceedings.[522]

The core feature of the ICSID is that it deals "*exclusively with disputes arising directly out of an investment between a contracting state and a national of another contracting state*". The Centre seeks to remove non-economic obstacles to private investment and is regarded as a reputable international arbitration institution in the settlement of disputes between states and private investors[523] (international investment arbitration).

Jurisdiction is established on the basis of consent, contract, local investment legislation or treaty rights. A rise in investor-state disputes and the expansion in Bilateral Investment Treaties, which provide for ICSID arbitration, have made ICSID of increasing importance in investor/state disputes. Investor-state disputes are discussed in greater detail in the Convention.[524]

However, it is noteworthy that ICSID is coming under increased scrutiny and criticism in legal scholarship. Various critics allege that biased arbitrators are deciding investor-state dispute settlement

[518] ICC Rules, Article 33.
[519] ICC Rules, Article 23.
[520] ICSID, < https://icsid.worldbank.org/about> accessed 30 October 2019.
[521] ibid.
[522] ICSID, < https://icsid.worldbank.org/sites/default/files/ICSID%20Convention%20English.pdf> accessed 30 October 2019.
[523] ibid.
[524] ICSID Convention, Chapter VIII.

cases.[525] The claim that ICSID tribunals favour investors is attributable to several features inherent in the arbitration system. Many of these specialists serving as arbitrators in ICSID act as attorneys in other disputes. The possibility of serving multiple roles may create a risk of conflict of interest and raises doubts about the arbitrator's independence and impartiality. For example, an arbitrator may be asked to render a decision on an issue he has previously acted as an advocate for in a prior case.[526] In these situations, an arbitrator's integrity might be compromised, as it may be difficult for a lawyer to remain neutral when deciding an issue in which he has previously argued in support of one side. Before the arbitration proceedings begin, an arbitrator has a duty to disclose any relationship with the parties or any other circumstance that might cast doubt on his ability to remain impartial.[527] However, these vague disclosure obligations may eventually permit the arbitrators to act with considerable discretion.

3.3. The London Court of International Arbitration (LCIA)

The London Court of International Arbitration (LCIA), which is based in London, was established in 1892. It is Europe's second leading international arbitration institution (after the ICC) and is very well known internationally.[528] The LCIA has affiliated arbitral institutions in Dubai (DIFC-LCIA), India (LCIA India) and up until 27 July 2018 Mauritius (LCIA-MIAC).[529]

The LCIA is one of the leading international institutions for commercial dispute resolution. It is composed of thirty-five members and it is the final authority for the proper interpretation and application of LCIA Rules.[530] It is responsible for appointing tribunals, determining challenges to arbitrators, and controlling proceedings. LCIA is the oldest international arbitral institution.

One of the advantages of LCIA is that it is cost-effective in the sense that administrative charges and fees are not based on sums in issue. A registration fee is payable with the Request for Arbitration and thereafter, hourly rates apply for both LCIA and the arbitrators.

An interesting fact about LCIA concerns the principle of confidentiality. In 2018 based on issues of transparency the LCIA made certain arbitration decisions from 2010 to 2017 available online. This release *"provides users with an increasingly significant research tool, and one which illustrates the effectiveness of the LCIA's challenge procedure*".[531]

3.4. The Permanent Court of Arbitration (PCA)

The Permanent Court of Arbitration (PCA) is a body created by the 1899 Hague Convention for the Pacific Settlement of International Disputes and based in The Hague, Netherlands. PCA provides administrative support in international arbitrations involving various combinations of states, state entities, international organizations and private parties.

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[525] P. Eberhardt & C. OLIVET, Profiting from injustice: how law firms, arbitrators and financiers are fueling an investment arbitration boom' (2012) < https://www.tni.org/files/download/profitingfrominjustice.pdf> accessed 20 November 2019.

[526] ibid.

[527] ICSID Arbitration Rules, supra note 108, at R. 6(2).

[528] Moses, M. L., (n. 494).

[529] https://www.lcia.org/lcia-miac.aspx

[530] LCIA, < https://www.lcia.org/> accessed 29 October 2019.

[531] ibid.

The PCA has experience in administering international arbitrations concerning disputes arising out of treaties, including bilateral investment treaties; The PCA frequently provides support in disputes between investors and States arising under the Energy Charter Treaty, conducted under the UNCITRAL Arbitration Rules.[532]

3.5. The Arbitration Institute of the Stockholm Chamber of Commerce (SCC)

The SCC was established in 1917 and is part of the Stockholm Chamber of Commerce. Nevertheless, it is an independent body.[533] This arbitration institute is one of the world's leading forums for dispute resolution. The SCC is primarily governed by its own set of arbitration rules.[534]

According to the statistics, 152 cases were registered in the SCC in 2018, half of which (76) were international disputes, involving parties from 43 countries. Among the registered cases, 89 were filed under the SCC Arbitration Rules, and 52 under the SCC Rules for Expedited Arbitrations.[535]

The SCC resolved different disputes in 2018 from diverse types of agreements. The majority of them concerned service agreements, delivery agreements, business acquisitions and shareholder agreements.[536]

Talking about the oil and gas industry, the SCC also takes a significant part in the international system developed for bilateral and multilateral investment protection. The SCC is cited as the forum for resolving disputes between investors and the state in at least 120 of the current BITs.[537]

3.6. The Swiss Chambers'Arbitration Institution (SCAI)

The Swiss Chambers' Arbitration Institution (SCAI) consists of the Chambers of Commerce and Industry of Basel, Bern, Geneva, Lausanne, Lucerne, Lugano, Neuchâtel and based on the Swiss Rules of International Arbitration and the Swiss Rules of Mediation.[538]

Focusing on the arbitration procedure, under the Swiss Rules of International Arbitration, *"the Swiss Chambers' Arbitration Institution established an Arbitration Court as an autonomous body. It carries out its functions in complete independence".*[539]

The Swiss Rules of International Arbitration have been drafted in a very attentive way in order to be efficient, flexible and at the same time effective for international civil law and common law cases as well as for domestic cases. The parties are entitled to determine their arbitrator(s), to choose governing law, the language of the proceedings, the seat of arbitration, and their own legal counsel, either in Switzerland, or abroad.[540]

[532] PCA, < https://pca-cpa.org/en/> accessed 29 October 2019.
[533] SCC, <https://sccinstitute.com/> accessed 26 November 2019.
[534] ibid.
[535] SCC, < https://sccinstitute.com/statistics/> accessed 26 November 2019.
[536] ibid.
[537] SCC, <https://sccinstitute.com/> accessed 26 November 2019.
[538] SCAI, < https://www.swissarbitration.org/> accessed 27 November 2019.
[539] SCAI, < https://www.swissarbitration.org/Arbitration/Introduction> accessed 27 November 2019.
[540] SCAI, <https://www.swissarbitration.org/Arbitration/Arbitration-Rules-and-Laws> accessed 27 November 2019.

According to the statistical data, in 2018 the SCAI resolved 85 arbitration cases in total and the most frequent cases concerning Sale of Goods (45%), Mergers & Acquisitions / Joint Ventures (20%) and Service Contracts (11%).[541]

3.7. The American Arbitration Association's International Center for Dispute Resolution (AAA)

The American Arbitration Association (AAA) is an organization with offices throughout the United States. It has a long history and experience in the field of alternative dispute resolution, providing services to individuals and organizations who wish to resolve conflicts out of court.[542] The International Center for Dispute Resolution (ICDR) is a division of AAA which provides international arbitration and other dispute resolution services. ICDR is headquartered in New York and has other offices in Ireland, Mexico, Singapore and Bahrain.

ICDR is responsible for administering arbitration proceedings, including providing arbitration rules; appointing arbitrators; assigning case managers; setting hearings; transmitting documents; and scheduling conference calls. ICDR maintains a worldwide panel of more than 650 independent arbitrators and mediators, who are assigned to hear and resolve cases.[543]

3.8. The Hong Kong International Arbitration Centre (HKIAC)

The Hong Kong International Arbitration Centre (HKIAC) is an arbitral tribunal located in Hong Kong. Together with China expertise the HKIAC has been Asia's specialist in dispute resolution since 1985. It is considered as one of the international best practices in this field. HKIAC maintains *"one of the largest caseloads in the Asia-Pacific region, and has handled over 9,000 commercial cases since its establishment"*.[544]

3.9. The Arbitration Foundation of Southern Africa (AFSA)

Arbitration Foundation of Southern Africa (AFSA) is based in Sandton, Johannesburg. AFSA is a private, non-profit organization, which manages and administers the confidential resolution of a wide range of both local and international disputes by way of mediation, adjudication, arbitration and related processes.[545]

Since AFSA does not publish its caseload, it is difficult to assess its position as an international arbitration center. Nonetheless, the AFSA is the South Africa's leading arbitral institution.

In 2015 AFSA created the China Africa Joint Arbitration Centre (CAJAC) in order to resolve commercial disputes between African and Chinese parties.[546]

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[541] SCAI,< https://www.swissarbitration.org/files/515/Statistics/SCAI%20Statistics%202018.pdf> accessed 27 November 2019.

[542] AAA, 'About the American Arbitration Association (AAA) and the International Centre for Dispute Resolution (ICDR)'<https://www.adr.org/aaa/faces/s/about?_afrLoop=1429081223878062&_afrWindowMode=0&_afrWindowId=i7rv7sj8_1#%40%3F_afrWindowId%3Di7rv7sj8_1%26_afrLoop%3D1429081223878062%26_afrWindowMode%3D0%26_adf.ctrl-state%3Di7rv7sj8_50 > accessed 22 November 2019.

[543] ibid.

[544] HKIAC,< https://hkiac.eventbank.com/org/hkiac/> accessed 21 November 2019.

[545] CRCICA, <https://arbitration.co.za/> accessed 30 October 2019.

[546] Mondaq, 'South Africa: The China-Africa Joint Arbitration Centre', < https://www.mondaq.com/> accessed 5 November 2019.

3.10. The Cairo Regional Centre for International Commercial Arbitration (CRCICA)

The Cairo Regional Centre for International Commercial Arbitration (the "CRCICA" or the "Centre") is an independent non-profit international organization established in 1979 under the auspices of the Asian African Legal Consultative Organization (AALCO) in pursuance of AALCO's decision to establish regional centres for international commercial arbitration in Asia and Africa.[547]

CRCICA is located in Cairo, Egypt and its status is supported by its ongoing cooperation agreements with ICSID, and with the Permanent Court of Arbitration (PCA). Among others, it administers domestic and international arbitrations (according to the UNCITRAL Rules), non- UNCITRAL disputes and other ADR mechanisms.

3.11. The Regional Centre for International Commercial Arbitration – Lagos (RCICA)

The RCICA was established in Lagos, Nigeria in 1989 under the auspices of the Asian African Legal Consultative Organisation (AALCO).[548]

The RCICA is a non-profit institution established with the aim of settling disputes in the fields of trade, commerce and investment within Nigerian and the region. Due to the significant natural resource endowments of the Nigerian state and within the region, especially oil and gas, the Centre often deals with the disputes arising out of petroleum related contracts. The rules applied to RCICA are the UNCITRAL Arbitration Rules with necessary modifications and adaptations.[549]

3.12. Nairobi Centre for International Arbitration (NCIA)

The NCIA was established following enactment of the Nairobi Centre for International Arbitration Act No. 6 of 2013. It facilitated the establishment of a local non-profit Centre with a wide mandate to administer both domestic and international arbitrations in the country. The NCIA has its own administrative rules being the NCIA (Arbitration) Rules of 2015 which are based on universal best practices in international commercial arbitration. These rules allow parties to benefit from in-built features that promote party autonomy while ensuring seamless selection of independent and empowered tribunals.

Establishment of the NCIA has allowed Kenya to compete regionally and gain traction amongst investors transacting in the region.

It is worth noting that the NCIA's facilities may be used by parties whose arbitrations are being administered under separate institutions but have chosen Nairobi as the venue for their hearings.

3.13. The Mauritius International Arbitration Center (MIAC)

The MIAC was established in 2011 as part of a joint venture with the LCIA. On 27th July 2018, MIAC separated from LCIA and currently operates as an independent institution.[550]

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[547] CRCICA, <https://crcica.org/> accessed 30 October 2019.

[548] JURIS Arbitrationa Law, *REGIONAL CENTRE FOR INTERNATIONAL COMMERCIAL ARBITRATION - LAGOS (RCICAL) CONCILIATION/MEDIATION RULES*, < https://arbitrationlaw.com/library/regional-centre-international-commercial-arbitration-lagos-lagos-rcica-national-arbitration> accessed 10 November 2019.

[549] ibid.

[550] MIAC, < https://miac.mu/about-us/> accessed 10 November 2019.

MIAC consists of an Advisory Board, a Board of Directors, and a Secretariat. Its work is based on the legal framework for international arbitration in Mauritius including the Mauritian International Arbitration Act, 2008. Apart from this, the PCA plays a role in MIAC's arbitration as well. [551]

MIAC's work is widely supported by the Government of Mauritius, which aims to promote Mauritius as a dispute settlement international arbitral seat for Africa and beyond. Nonetheless, it should be emphasized that the MIAC is not dependent upon the Government, and the principle of governmental non-interference to its administration is expressly foundational and for all parties choosing this institution to have confidence in.[552]

3.14. Kigali International Arbitration Centre (KIAC)

The KIAC was established in 2012 and administers arbitration under its own rules and the UNCITRAL Rules. The objective of the KIAC was to promote Rwanda as a venue for providing efficient arbitration services – both domestically and internationally and to promote a centre of excellence for research and training of professionals in ADR.

Overtime, the fact that Rwanda has low corruption levels, a stable government and is favourably reported in the World Bank's ease of doing business reports, has contributed to the development of the KIAC. At the start of 2019, the KIAC reported that over 100 international arbitration cases had been filed at the KIAC since its inception in 2012. The KIAC also reported that its awards have a healthy-enforcement track record within local courts with few being set aside. According to the KIAC, the local judiciary have espoused a pro-arbitration policy which ensures the prioritisation of arbitration disputes in the local courts. The KIAC continues to gain significant confidence in the quality of its arbitration and its ability to handle complex and high value disputes.

4. Arbitration Procedure and Place

As for the arbitration procedure, as a general rule, it will entail all or the majority of the following stages (they do not necessarily take place one after another, some steps can overlap):[553]

- *"Claimant's Request for Arbitration;*
- *Respondent's Answer, which may include possible any counterclaims;*
- *Claimant's Reply to Counterclaim;*
- *Appointment of the arbitral tribunal;*
- *Procedural hearing setting the steps and timetable for the arbitration;*
- *Claimant's full Statement of Case (if not served with the Request for Arbitration);*
- *Respondent's full Defence and Counterclaim (if not served with the Answer);*

[551] ibid.

[552] ibid.

[553] Latham & Watkins, (n 474).

- *Claimant's Reply and Defence to Counterclaim;*
- *Disclosure of the documents relied upon or of the (often very limited) categories of documents requested by the other party;*
- *Exchange of witness statements (sometimes followed by rebuttal statements);*
- *Exchange of expert reports (sometimes followed by rebuttal reports);*
- *Meeting of experts to narrow issues and joint statement of matters agreed/in dispute;*
- *Exchange of pre-hearing submissions;*
- *Hearing;*
- *Post-hearing submissions;*
- *Award*".[554]

Each arbitral matter is unique and will have its own time frame in which to complete. The length of the case settlement depends upon various factors, such as which procedures are adopted, the availability of the tribunal and the parties' conduct,; however, usually cases takes from around 12 to 18 months to conclude.[555]

An important point to draw attention to is the distinction between the physical place of the hearing and the legal place of the arbitration (the latter being referred to as the "seat" of arbitration); these are often confused and should not be. The seat of arbitration defines *"the legal framework within which the arbitration takes place, not the location where the parties or the tribunal choose to meet"*.[556] In choosing a seat of arbitration, parties are choosing applicable procedural law, for example, if they decide to choose London, the 1996 Arbitration Act and English law statute are applied.[557] According to the New York Convention, the seat of arbitration also influences enforceability. As soon as a state becomes party to the New York Convention, it agrees to *"enforce commercial arbitral awards made in other contracting states"*.[558] It follows therefore, that the decision made on the seat of arbitration will have a significant impact on the conduct of the arbitration and on the enforceability of the ultimate award.

5. Development of African Arbitration Law

Arbitration in Africa has changed dramatically in recent years. First, the number of arbitral institutions based in Africa has risen sharply, a much wider pool of African lawyers has become experienced in arbitration proceedings, and arbitration procedures and rules are emerging from African jurisdictions

[554] Ibid.
[555] ibid.
[556] ibid.
[557] ibid.
[558] ibid.

more and more. Jurisdictions such as Egypt, Kenya, Mauritius, Nigeria, Rwanda, and South Africa[559] appear to be leading the way in these developments.

Of late, African arbitral institutions have been focusing on the development of arbitration in Africa, by organising special events, conferences, training programmes and practice sessions. In 2017 the African Arbitration Association was created. It seeks to not only promote Arbitration on the continent, but to ensure that the expertise in the field grows consistently. It has held a number of show case events across Africa and has fast become an important voice for the sector. Other bodies and initiatives have adopted similar strategies. 2017 CRCICA was the host to the third SOAS Conference and the collaboration concentrated on the theme of the *"role of African states and governments in creating a viable legal and regulatory environment for arbitration to grow".*[560] And as recent as in August 2020 the East Africa International Arbitration Conference was held on an online platform, virtually attended by various practitioners from the continent and beyond, demonstrating its ability to effectively harness technology in the middle of the Covid-19 pandemic[561]; and in so doing the conference touched on an important theme of how technology can be an important driver of arbitral service delivery in Africa now and in the future.

The ongoing development of Arbitration systems in Africa can also be illustrated by various legal reforms which have been taking place. For example, the landmark case *Getma v Guinea* (2017) led to the adoption of the Uniform Act on Mediation by the Harmonization of Business Law in Africa (OHADA) together with Council of Ministers. Amendments were also made to two other texts, the New Uniform Act on the Law of Arbitration and the Revised Rules of Arbitration of the Common Court of Justice and Arbitration (CCJA) with the aim of improving the CCJA centre and to attract more users of its services.[562]

In addition, African parties are becoming more involved in arbitration cases worldwide. ICC statistics over the last few years has shown that, *"arbitration was increasing in North and sub-Saharan Africa with a 50% increase in the number of participating parties".*[563] Countries such as Nigeria have seen notable increases in parties involved in new cases administrated in some of the established international arbitral centres.[564]

However, the recurrent theme, of Africa's under representation in respect of arbitrator appointments in international arbitration matters remains. In more recent times there has been some indication of positive change in this area. For example, based on ICC statistics, in 2016 around 2% of its arbitrators originated from Africa[565] which was a significant increase from previous years.[566]

[559] Michael Ostrove, Ben Sanderson, Andrea Lapunzina Veronelli, 'Developments in African Arbitration' (2018) <https://globalarbitrationreview.com/print_article/gar/editorial/1169293/developments-in-african-arbitration?print=true> accessed 2 November 2019.

[560] ibid.

[561]ICSID, < https://icsid.worldbank.org/news-and-events/events/8th-annual-east-africa-international-arbitration-conference-eaiac-2020> accessed 1 September 2020.

[562] Michael Ostrove (n. 563); African Economic Outlook 2016, 24.

[563] ICC Dispute Resolution Statistics, (2016).

[564]ICC Dispute Resolution Bulletin, (2017).

[565] ICC Bulletin No. 1, 2016.

[566] ICC Statistical Report (2015); Michael Ostrove (n. 563).

Regarding the oil and gas industry in particular, to date, commercial disputes in Africa primarily concern telecoms, construction, energy and natural resources areas.[567] A recent ICC claim was connected with the world's largest manganese mines (case against Burkina Faso).[568] It has already been mentioned, that natural resources have long been an essential part of the African economy, assisting to an extent to its development and to increases of foreign investments.[569]

One of the major development for Africa in recent times is the coming into force of the African Continental Free Trade Area (AfCFTA). This represents the continent's attempt at widespread economic integration, in its drive to bring reality to Africa's development agenda. The importance this has for arbitration is that the AfCFTA, establishes a Dispute Settlement Mechanism (DSM) under Art. 20 and Art. 3(1) of the Protocol on Settlement of Disputes. The DSM will only apply to disputes between AfCFTA state parties and it remains to be seen whether an investor state mechanism will follow. The DSM will be modelled significantly around the WTO Dispute Settlement mechanism, with panels dealing with initial inquiries, and an appellate body to be established creating an oversight layer from the panels.

As has been observed in earlier sections of the handbook, ICSID has encountered various problems relating to Investor-State Dispute Settlement. It appears for the time being that AfCFTA is likely to adopt an active state-state dispute settlement mechanism as an alternative. This has been seen in the Brazil-Ethiopia agreement (2018) and Brazil-Malawi agreement (2015) as well as the Australia-Malaysia FTA (2012). Notwithstanding the issues ICSID has experienced, significant volumes of Africa's investment disputes involving oil and gas and mining have ended up before the ICSID tribunal.

It remains to be seen what the future will hold for the establishment of a state-state DSM within the AfCFTA framework and how uptake will be affected by the existence of intra-Africa and third-party state BITs that are already providing for ISDS, and the continued increases in FDI investments, which may act as an incentive for African states to continue allowing for ISDS systems.[570]

6. Conclusion

On balance, arbitration is now firmly entrenched as a viable alternative to the national courts in many jurisdictions across Africa. The developments seen in recent years have helped establish more reliable and consistent practices and procedures. There is, however, still much work to be done. In order to keep and maintain the progress made to date, three key evolutions are needed. Firstly there is a need for the modernisation of domestic arbitration laws, with adoption and contribution to best practices; secondly, there must be a national, regional and continental drive to create specialist arbitral expertise amongst the judiciary, the legal profession and legal educators; and thirdly, effective measures should be deployed to ensure that States, relevant national and trans-national arbitral institutions, companies and the public at large become fully aware of arbitration as an effective means of dispute resolution.

[567] The Economist, 'Investment in Africa' (2015)< www.economist.com/news/economic-and-financial-indicators/21652274-investment-africa.> accessed 25 October 2019.

[568] T. Jones, "Mining claim proceeds against Burkina Faso", Global Arbitration Review, (2017),< http://globalarbitrationreview.com/article/1149965/mining-claim-proceeds-against-burkina-faso> accessed 26 November 2019.

[569] Michael Ostrove, (n. 562).

[570] ibid.

Key Chapter Points

After reading this Chapter you should understand the definition of the international arbitration; aspects of the arbitration which differ from litigation and other means of ADR; the difference between institutional and ad hoc arbitration, the primary international and regional arbitration institutions; arbitration procedure generally; the difference between seat of arbitration and physical location of the hearing; the importance of the seat of arbitration; the developing trends in the Africa's arbitration landscape, Africa's underrepresentation as International Arbitrators; the coming into force of AfCTA and what the future of investment arbitration in Africa may look like in light of this major continental development.

Final Words on this Handbook

This handbook sought to provide a detailed discussion of HGIs, Joint Ventures, Fiscal arrangements between HG and IOCs, Financing agreements for IOCs, Storage and Transportation agreements, the dynamics of the relationship between the HG and IOCs/Investors, HSE, and the various forms of ADR (particularly arbitration). The reader should now have a level of confidence to navigate, draft, negotiate and review these key agreements. Along with this, the reader is encouraged to peruse the references provided, so as to gain a more robust understanding of the selected agreements and to broadly expand her or her knowledge on oil and gas related matters.