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Sustainable Development and Evolution of Production Sharing Agreements:

Multi - Stakeholder Perspective

by

Victoria G. Polyakevich

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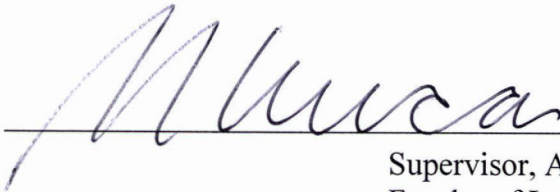
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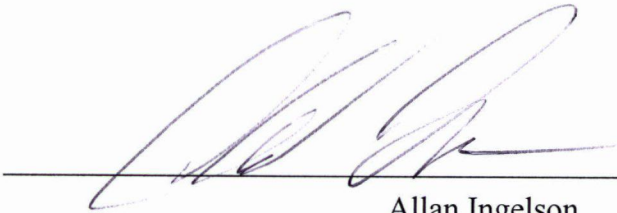
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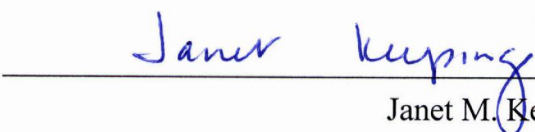
The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Sustainable Development and Evolution of Production Sharing Agreements: Multi- Stakeholder Perspective" submitted by Victoria G. Polyakevich in partial fulfillment of the requirements for the degree of Master of Laws.



Supervisor, Alastair R. Lucas  
Faculty of Law



Allan Ingelson  
Faculty of Law



Janet M. Keeping  
The Sheldon Chumir  
Foundation for Ethics in  
Leadership, President

16 March 2009  
Date

## **ABSTRACT**

The thesis elaborates issues of non-parties' rights protection in the formation and renegotiation of petroleum agreements. Since the idea of permanent sovereignty over natural resources was introduced in 1962, numerous oil exporting countries' governments modernized their oil investment agreements in order to meet this international principle and thus defend the interests of their peoples. Nevertheless, the problem of balance between defending investors' assets and protection of local population interests is not yet solved and governments continue to reform these contracts.

For a prolonged time in the disputes on renegotiation of petroleum agreements the state parties used arguments based on the principle of permanent sovereignty. The investors used arguments based on the "resource curse" theory, sought more transparency in fiscal regimes and more democracy in state regimes of petroleum exporting countries.

This thesis uses sustainable development as a legal theoretical framework that suggests a middle path, a way to point out, strengthen and protect mutual interests of foreign investors and host governments. Besides, within the framework of sustainable development the thesis elaborates protection of rights of other stakeholders impacted by the petroleum contract implementation.

The argument of the thesis is focused on promotion of sustainability in production sharing agreements. The author examines development of production sharing agreements during the past several decades in four jurisdictions in support of the hypothesis that there is an evolution of these investment instruments towards sustainability. The thesis contains theoretical analysis of terms and practical recommendations for evaluation of present and evolution of future production sharing agreements in order to make these petroleum agreements better for multiple sustainability stakeholders.

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## **ABBREVIATIONS AND ACRONYMS**

AIPN – Association of International Petroleum Negotiators  
bbl – Barrel(s) of oil  
BIT – Bilateral investment treaty  
bpd – Barrel(s) per day  
CIF – Cost, Insurance and Freight  
EIA – Environmental impact assessment  
EPSA – Exploration and Production-Sharing Agreement  
FDI – Foreign Direct Investment  
FOB - free on board  
IBA – International Bar Association  
IIAPCO - Independent Indonesian American Petroleum Company  
IISD – International Institute for Sustainable Development  
ILA – International Law Association  
IOC – International oil company  
IUCN – World Conservation Union (before 1900 International Union for Conservation of Nature and Natural Resources)  
JERL – Journal of Energy and Natural Resources Law  
MEA(s) - multilateral environmental agreements  
MIGA – Multilateral Investment Guarantee Agency  
MIT – Multilateral investment treaty  
NGO – Non-Governmental Organization  
NOC – National Oil Company  
OECD – Organization for Economic Co-operation and Development  
OPEC – Organization of Petroleum Exporting Countries  
PA – Petroleum agreement  
PSA – Production-Sharing Agreement  
SEIC – Sakhalin Energy Investment Company  
SRI – Socially Responsible Investment  
UNEP – United Nations Environment Program  
UNDP – United Nations Development Program  
WCED – World Commission on Environment and Development  
WSSD – World Summit on Sustainable Development



## Chapter One. Introduction

*I was concerned that the tenets of sustainable development, despite increasingly strong political backing and grassroots support, would continue to have a hard time gaining traction unless they were better integrated into investment analysis and assessment.*

Kofi A. Annan  
Sustainable Investment Policy, May  
2007

### 1.1. Human Rights and Petroleum Contracts

My thesis is that the assessment of production sharing agreements (hereinafter PSAs) from the multiple stakeholders' view can contribute to the protection of rights and lawful interests of the residents of a petroleum extraction area. There is an abundance of academic books and articles which state in various ways that citizens of the oil-exporting countries suffer from the activities of the oil industry.<sup>1</sup> In numerous cases, the host governments argue for renegotiation of initial investment agreements on the basis that the effects of the implementation of a particular mining or petroleum agreement causes damages and threatens the health of the citizens of a particular country. However, when the foreign investor has entered into an agreement with the host government, when money and other assets were invested and when discovered oil or gas deposits has proven their commerciality, the conflict between the foreign investor, namely an international oil company (hereinafter IOC) and the host government usually concerns taxes and payment

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<sup>1</sup> See: David Szablowski, *Transnational Law and Local Struggles* (Oxford/Portland, Oregon: Hart Publishing, 2007); Michael L. Ross, "Does Oil Hinder Democracy?" (2001) 53 *World Politics* 325; Oksan Bayulgen, "Foreign Investment, Oil Curse, and Democratization: A Comparison of Azerbaijan and Russia" (2005), online at: Berkeley electronic press, <<http://www.bepress.com/bap>>; P. Collier & A. Hoeffler, "Greed and Grievance in Civil War" (2004) 50(4) *Oxford Economic Papers* 563; J.D. Fearon "Why some Civil Wars Last so Much Longer than Others?" (2004) 41 (3) *Journal of Peace Research* 275 *etc.*

terms<sup>2</sup>, and it is not clear how renegotiation of these terms is relevant to the protection of the rights of the citizens. There are examples in the history of the petroleum industry when renegotiation of the initial contract did not solve the problem it was designed to eliminate or mitigate.<sup>3</sup> That is why the purpose of my research is to discuss the issues of non-parties' rights in negotiation and renegotiation of PSAs.

It is necessary to compare the practice of implementation of PSAs all over the world. The study includes both developing and developed countries in order to identify common problems and investigate possible methods to solve them. Although there are many common elements in every PSA, it is also important to add to the research some historical background to prevent misapprehension of similar difficulties in the implementation of the inaccurately formed PSAs as mere coincidences.

In modern oil and gas studies there are three opinions on petroleum agreements (hereinafter PAs). The first and the most developed is the view of the foreign investor. IOCs are interested in political and financial stability of the oil-rich country, in the predictability of changes in the regulation of the petroleum extraction activities and most of all in a profitable return of the invested money.<sup>4</sup> The alternative view is that of the national

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<sup>2</sup> R.F. Mikesell "Conflict in Foreign Investor-Host Country Relations: A Preliminary Analysis" in Raymond F. Mikesell (ed.) *Foreign Investment in the Petroleum and Mineral Industries* (Baltimore and London: John Hopkins Press, 1971) at 29.

<sup>3</sup> Joseph E. Stiglitz, "What is the Role of State?" in M. Humphreys, J.D. Sachs & J.E. Stiglitz (eds.) *Escaping the Resource Curse* (New York: Columbia University Press, 2007); M. Garcia Schreck, *Petroleum Investment Conditions in Peru* (CEMLP discussion paper DP6,1996); Ross, *supra* note 1; Collier & Hoeffler, *supra* note 1 *etc.*

<sup>4</sup> See generally: George W. Keeton & Georg Schwarzenberger (eds.) *Foreign Investments and International Law* (New York, NY: Frederick A. Praeger Inc., 1969); Shyami Fernando Puvimanasinghe, *Foreign Investment, Human Rights and Environment* (Leiden/ Boston: Martinus Nijhoff Publishers, 2007).

government, also referred to as the host government. Unlike the IOC, the host government cannot act only on market motivation<sup>5</sup>, although one of its priorities certainly is to increase investment flow into its petroleum extracting industry. At the same time the government has numerous duties to its citizens. Among the duties related to oil investment there are: the duty to protect rights and legitimate interests of its citizens, to comply with international environmental and other obligations, to prevent armed conflicts within its territory and avoid confrontation with neighboring countries. That is a yet not complete list of host government's duties and concerns related to a petroleum investment.<sup>6</sup> The least popular view on the assessment of the PA in general and PSA in particular is the one that evaluates a PA both as an investment contract and as an act of regulation. This approach takes into account the rights and lawful interests of all involved parties.<sup>7</sup> The advantages of the third view over the first and the second ones are appreciated by prominent representatives of several legal theories.

The present humankind strongly depends on oil, policy and environment. There is no national economy in the current world that is not impacted by world petroleum turnover.<sup>8</sup>

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<sup>5</sup> Raymond F. Mikesell, *Petroleum Company Operations and Agreements in the Developing Countries* (Washington, DC: Resources for the Future, 1984); also his, *supra* note 2; Daniel Johnston *Petroleum Fiscal Systems and Production Sharing Contracts* (Tulsa, Oklahoma: PennWell Publishing Company, 1994); Thomas W. Waelde, "Natural Resources and Sustainable Development: from 'Good Intentions' to 'Good Consequences'" in Nico Schrijver & Friedl Weiss (eds.) *International Law and Sustainable Development Principles and Practice* (Leiden/Boston: Martinus Nijhoff Publishers, 2004) *etc.*

<sup>6</sup> Daniele Barberis, *Negotiating Mining Agreements: Past Present and Future Trends* (Hague/London/ Boston: Kluwer International Law, 1998) at 64-68; see also: Zuhayr Mikdashi, "Policy Issues and Suggestions" in *The International Politics of Natural Resources* (Ithaca & London: Cornell University Press, 1976) at 19 and 33.

<sup>7</sup> See: "The Environmental, Social and Human Rights Impacts of Foreign Investment Contracts" online at <[www.pacificenvironment.org](http://www.pacificenvironment.org)>; Puvimanasinghe, *supra* note 4.

<sup>8</sup> Stanley N. Onuosa, "Sustainable Development of petroleum Resources: Rumpus and Resolution" in Zhiguo Gao (ed.) *Environmental Regulation of Oil and Gas* (London / Hague / Boston: Kluwer Law International, 1998).

As any non-renewable natural resource being used for a long time without a substitute, petroleum became scarce and its scarcity drives demand in this resource and the price for it. In these circumstances oil-producing companies and politicians have to accept harsh decisions to resolve competition between the public interest and the interests of various groups of the population. Regulation of oil and gas extraction and their further turnover is a sophisticated relationship with multiple participants. It is true that everyone experiences certain impact of this regulation to some extent: international oil companies, oil-exporting states, oil-importing countries and their citizens.

In the formation of an international petroleum contract, a multinational corporation usually aims at having minimal restrictions and maximal benefits, the highest profits and the lowest risks. The host government also wishes to get maximal profits and minimize both economic and social risks.<sup>9</sup> The host government should act as a good trustee for its citizens' rights and interests and mitigate negative consequences of the foreign investment. One of the most popular political issues is: Why does the state fail to act as a good trustee? There is no appropriate answer to this question and it is true to say that the best minds have spent more than one century trying to solve this problem. It is also true to add that there are no unanimous answers to many petroleum regulation issues.<sup>10</sup> At the same time it is obvious that great aims can be achieved by small but persistent steps. This thesis elaborates on legal means that help to reach a sustainable balance between the interests of the international oil company, the host government and the residents of the extraction area. This study involves

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<sup>9</sup> See: Johnston, *supra* note 5; Barberis, *supra* note 6.

<sup>10</sup> Richard M. Auty, *Sustaining Development in Mineral Economies: The Resource Curse Thesis* (London: Routledge, 1993); Robert M. Solow, "An Almost Practical Step towards Sustainability" (1993) 19(3) Resources Policy 162 at 166; Mikesell, *supra* note 2 *etc.*

examination of the literature and legal sources. The study heavily relies on model PSAs available in the literature and on the Internet, because actual PSAs or their parts are confidential in some jurisdictions.

## ***1.2 Methodology***

The purposes of this thesis are to summarize the theoretical background and to develop guidelines for the assessment of a particular PSA from the multi-stakeholders' view. Besides, the research includes examples of PSA implementation which allow testing the developed theoretical guide. Four countries were selected for the case studies. Although they represent practices of formation and implementation of PSAs almost worldwide, all four jurisdictions brought some unique features to a concept of PSA. Indonesia was chosen because it is considered to be the place of origin of PSAs; this country was also the first one, which encountered obstacles in PSAs implementation and first passed through renegotiation. Libya was selected as a country of origin of an exploration and production sharing agreement (hereinafter – EPSA). The Peruvian PSAs were also chosen for the case studies for their unique features, related to fiscal terms. In addition, it is an example of unacceptability of a PSA for a particular host government, even upon significant renegotiation of the initial contracts. All these contracts had regressive features that prevented the government and the nation from getting maximum use of their resources and at the same time some stakeholder-friendly terms repelled some investors, because expensive development of low-volume fields seemed to them to be too risky under such terms. I also included the Russian experience with PSAs because it illustrates the use of this petroleum contract in a developed country. This study also continues academic comparison of the effects and side-effects of PSA implementation in developing countries with the

Russian experience.<sup>11</sup> All these countries faced circumstances that induced renegotiation of the PA. In the thesis I compare reasons, legal instruments and results of these renegotiations. Besides, I provide a rationale of how these and other countries can avoid renegotiation in the future or mitigate this process.

The thesis contains five chapters and is organized as follows: the first chapter is introductory: it overviews the problem, sets the goals and limitations of the study and chooses the theoretical framework for the research from several contemporary legal theories. In the first chapter I am focusing upon the problem of preliminary assessment of terms of PSAs and their reassessment, especially in case of renegotiation, then overview the literature on the subject of the resource curse, sustainable development and multi-stakeholders theories. In the conclusion of the first chapter there is a justification for my choice of the multi-stakeholders approach to the problem.

The second chapter is focused on the theoretical aspects of sustainable development. It summarizes the definition and principles of sustainable development, examines controversies of the theory with the practice of extractive industries, elaborates compatibility of non-*stricto sensu* sustainable mining and petroleum development with permanent sovereignty over natural resources, narrows the focus of the research to the multi-stakeholder approach and recommends a list of pro-sustainable terms of a PA.

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<sup>11</sup> See: A. Konoplyanik "The Russian Oil Industry and Foreign Investments: Legal Aspects and the Problem of Business Risk" in Thomas W. Waelde & George K. Ndi (eds.) *International Oil and Gas Investment Moving Eastward?* (London/ Dordrecht / Boston: Graham & Trotman / Martinus Nijhoff, 1994); Thomas W. Waelde "Oil and Gas legislation in Russia: From Texas to Siberia – Is a Russian Model Emerging?" in Thomas W. Waelde & George K. Ndi (eds.) *International Oil and Gas Investment Moving Eastward?* (London/ Dordrecht / Boston: Graham & Trotman / Martinus Nijhoff, 1994).

The third chapter narrows the research to only one type of PAs, to PSAs. It describes the definition and origin of that type of petroleum contract and analyses selected terms, which are critically important for the implementation of these agreements in a way that is most stakeholder-friendly. The goal of the third chapter is to analyze the legal nature of the PSA and to determine whether it is a pure private contract, or it is also a regulatory instrument. As Coale writes, most of the PAs supersede countries' environmental and social laws and regulations. Consequently, these contracts are policy making documents.<sup>12</sup> Additionally, the goal of the chapter is to transfer the attention of future researchers and practitioners from the oil split formula to environmental issues. The chapter continues the theoretical and practical quest for terms in PA that are significant for local residents of the exploration area.<sup>13</sup>

The fourth chapter compares the historical backgrounds of the petroleum industries in the selected countries, as well as their experience with the implementation of the PSA. The petroleum agreement is the final step in the regulation of petroleum extraction activities. It is designed to fill in the gaps in regulation and at the same time to take into account the peculiarities of a particular oil basin.<sup>14</sup> As any other social regulation, it periodically needs adjustment. The aim of the chapter is to determine whether there has been a development towards sustainability both in renegotiations and mild evolution of PSAs. Thus, it is necessary to investigate the rights and obligations of the parties in general and their duties

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<sup>12</sup> See: Margarita Coale, "Stabilization Clauses in International Petroleum Transactions" (2002) 30 Denv. J. Int'l L. & Pol'y 217.

<sup>13</sup> For environmental terms in PAs see: Zhiguo Gao *International Petroleum Contracts: Current Trends and New Directions* (London/Dordrecht/Boston: Graham&Trotman / Martinus Nijhoff, 1994) at 98.

<sup>14</sup> Johnston, *supra* note 5, Ernest E. Smith & John S. Dzienkowski, "A Fifty-Year Perspective on World Petroleum Arrangements" (1989) 24 Texas Int'l L.J. 13 at 37-38.

established to preserve interests of non-parties. In the conclusion of the fourth chapter I summarize typical mistakes in formation and renegotiation of PSAs, argue for preliminary assessment as well as for regular reassessment of the social and environmental impact of the petroleum extraction and justify reiteration of the contract on the basis of the assessment. The fourth chapter summarizes PSA case studies in four countries, points out the difficulties encountered and discusses practical and theoretical solutions to the problem.

The last chapter contains recommendations for the parties of the PA, non-parties and other subjects of the international natural resources law, which are involved or may be involved in negotiation or renegotiation of a PSA. In my view, there are no strong parties or weak parties in petroleum-related decision making. The residents risk their way of life, the IOCs risk their money, the host governments risk stability in their countries or even in entire regions.

### ***1.3 Statement of the Problem***

The demand for non-renewable natural resources has been extremely high during the past several decades. Nowadays petroleum is one of the largest commodities in the world both in value and in volume, and that is why petroleum development issues are international in outlook.<sup>15</sup> The ability of the present global civilization to sustain this sort of economy – fossil fuel based economy – is the object of many arguments.<sup>16</sup> The demand for petroleum resources, as well as political developments of the last half century, formed a political and economic need both for reform of legislation in oil producing countries and for update of

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<sup>15</sup> Onuosa, *supra* note 8 at 433.

<sup>16</sup> *Ibid.*; see also: Waelde, *supra* note 11; Gao, *supra* note 13 *etc.*



international legal instruments for the foreign investment. Due to globalization, more and more processes in regional and local oil markets can be entirely or partially solved by contractual means.<sup>17</sup>

Oil or gas never occur alone, they are always a part of an ecosystem; the extraction of these fossils will necessarily impact the soil, air, water and wildlife in the area. The exploration and extraction areas are rarely not in use by the time petroleum exploration begins. It may be a farmers' land, territory or waters where Indigenous communities traditionally hunt or fish, *etc.*<sup>18</sup> Many countries-exporters of hydrocarbons are now interested in foreign investment into their oil and gas industry, and they offer extremely profitable terms for IOCs, but these terms are often unacceptable to local residents and businesses. At the same time there is a tendency for the development of a new role of IOCs in petroleum negotiating and "Lex Petrolea".<sup>19</sup>

There are volumes of research written about the economic efficiency of international petroleum agreements and most of them affirm that the PSA is a very successful resource management instrument from the economic point of view.<sup>20</sup> From a legal point of view the PSA is an agreement which establishes rights and duties of the parties to the agreement. At the same time, oil and gas exploration and exploitation under a particular PSA have a vast

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<sup>17</sup> See generally: Coale, *supra* note 12; see also: Barberis, *supra* note 6; Waelde, *supra* note 11; Gao, *supra* note 13.

<sup>18</sup> Ross, *supra* note 1; Fearon, *supra* note 1, Fearon, J.D. & Laitin, D.D. "Ethnicity, Insurgency, and Civil War" (2003) 97(1) American Political Science Review 75; Mikesell, *supra* note 2 *etc.*

<sup>19</sup> R.D. Bishop, *International Arbitration of Petroleum Disputes: The Development of a "Lex Petrolea"*, CEMLP discussion paper DP12 (Dundee: CEMLP, 1997).

<sup>20</sup> See: Machmud, T.N. *The Indonesian Production Sharing Contract, an Investor's Perspective* (Hague: Kluwer, 2000); Johnston, *supra* note 5; Smith & Dzienkowski, *supra* note 14 at 37.

impact on the rights and legal interests of non-parties, local residents and their communities. The problem is that some host governments, for various reasons, neglect the interests of their citizens during the formation of petroleum investment agreements.<sup>21</sup> The risks and benefits of non-parties to a PSA are not assessed correctly or even not assessed at all. Officials mostly care about the billions of dollars invested, but they forget about the people who share the impacts of the petroleum development. When the living conditions of local communities start to get worse than they were prior to the petroleum development, the residents of the exploitation areas have to protect their rights by affordable means. They start public rallies, sabotage, even rebellions. Even if they do not begin open actions their living conditions stay far from satisfactory: they starve, suffer from various diseases caused by contaminants, lose their traditional jobs, and face plenty of other negative consequences, which obviously contradict the concept of development.

Negative social changes emerge not at once but in several years after the beginning of the exploration. Oil and gas development is a long-term investment; the well starts to pay back not earlier than after 15 years since it has been equipped and put into operation. By the time the host government and the IOC notice that local residents of the exploration or exploitation area oppose oil and gas development in their region, the PSA or another mineral contract is already signed.<sup>22</sup>

The primary aim of the state is to protect the interests of its citizens. In this situation, when local conflicts or controversies in the petroleum exploitation areas occur, the host

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<sup>21</sup> See: Gao, *supra* note 13; Coale, *supra* note 12; See also: Ross, *supra* note 1.

<sup>22</sup> See: Johnston, *supra* note 5; Waelde, *supra* note 11; Ernest E. Smith *et al.*, *International Petroleum Transactions* (Denver, Colorado: Rocky Mountain Mineral Law Foundation, 1993).

government often tries to renegotiate the petroleum contract. At the same time, the IOC, which is looking for a stable investment environment, opposes renegotiation and declares it “expropriation by another name”.<sup>23</sup>

According to the opinion of T. Machmud, one of the leading experts in International Oil and Gas Law, the first Indonesian PSA was “a rather incomplete legal document, barely describing the basic principles on which it was based and leaving a great deal of uncertainty as to possible disagreements on implementation would be resolved”<sup>24</sup> In other words, the first PSA contained a lot of unbalanced provisions which resulted in serious social controversies. The inventor of the concept of the PSA, Sutowo, offered several amendments to the original version of the contract by letters and supplements. This idea was not welcomed by the IOCs, which started exploratory works in an offshore block northwest of Java. The controversies with local residents continued, from 1976 until 1998, developed into a full-scale civil war, lead Indonesia to crisis and ended with the fall of President Suharto’s regime.<sup>25</sup> It will be appropriate to add that since the late 1960s until the present time, the Indonesian model of PSA has had gone through “generations” of model PSAs and now the model PSA of 1998 is recognized worldwide as one of the most successful examples of PSA.<sup>26</sup>

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<sup>23</sup> Greg Muttitt “Production Sharing Agreements: Oil Privatization by Another Name?” (2005), online at: Platform, <[http://www.platformlondon.org/carbonweb/documents/PSAs\\_privatisation.pdf](http://www.platformlondon.org/carbonweb/documents/PSAs_privatisation.pdf)>.

<sup>24</sup> T.N. Machmud, “The Production Sharing Contract in Indonesia” in Thomas W. Waelde & George K. Ndi (eds.) *International Oil and Gas Investment Moving Eastward?* (London/ Dordrecht / Boston: Graham & Trotman / Martinus Nijhoff, 1994) at 113.

<sup>25</sup> Ross, *supra* note 1, See also: Geoffrey Robinson, “Rawan is as Rawan Does: The Origins of Disorder in New Order Aceh,” in Benedict R. O’G. Anderson (ed.) *Violence and the State in Suharto's Indonesia*, (New York: Southeast Asia Program Publications, 2001) at 127-156.

<sup>26</sup> Machmud, *supra* note 24 at 115 and 121.

There was more than a dozen developing countries that used PSAs, among them Peru, Libya, Sudan, Nigeria, Malaysia, Philippines, Egypt and many others, and they faced similar problems.<sup>27</sup> Since Collier and Hoeffler drew the attention of academic community to the nature of conflicts in oil-exporting countries<sup>28</sup>, many scholars have written about the “evil spell over the black gold”. For instance, econometric studies by Fearon, Laitin, Humphreys and De Soysa proved that countries with rich oil and gas deposits have much higher risks of getting involved in civil conflicts and controversies than non-oil exporters.<sup>29</sup>

At the same time, PSAs were implemented not only in developing countries. For example, recent debates over the Sakhalin II project in Russia contained *inter alia* some serious concerns that the project can threaten or destroy the marine environment, bring crucial changes to the livelihood of tens of thousands of fishermen, contaminate the key salmon fishing area of the island by dumping wastes and oil spills into the sea, namely in the Okhotsk Sea and Japanese Sea. The project was and still is opposed by a number of environmental groups including Sakhalin Environment Watch, World Wide Fund for Nature, Friends of the Earth, Bankwatch, Pacific Environment, IUCN, as well as by many residents of Sakhalin and independent scientists. Royal Dutch Shell PLC argued that the

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<sup>27</sup> See generally: Mikesell, *supra* note 5; see also: Fawzi, H.H. “Legislative and Contractual Framework for Oil Exploration and Production in Sudan” online at: Dundee, <<http://www.dundee.ac.uk/cepmlp/journal/html/vol9/vol9-15.html>>; Obi, C. “Oil, Environmental Conflict and National Security in Nigeria: Ramifications of the Ecology-Security Nexus for Sub-Regional Peace”; online at: <<http://hdl.handle.net/2142/18>>.

<sup>28</sup> See: Collier & Hoeffler *supra* note 1; see also: Fearon, *supra* note 1; Ross, *supra* note 1.

<sup>29</sup> Fearon, *supra* note 1, Fearon & Laitin, *supra* note 18; Indra de Soysa. “Paradise is a Bazaar? Greed, Creed, and Governance in Civil War, 1989-99” (2002) 39(4) J.Peace Res. 395; Humphreys, M.. “Natural Resource, Conflict, and Conflict Resolution”, 2003, online at: Santa Fe Institute, <<http://www.santafe.edu/files/gems/obstaclestopeace/humphreys.pdf>>.

applied technologies meet the lender requirements of the initial agreement and *pacta sunt servanda*.<sup>30</sup>

These arguments almost explicitly affirm that some petroleum development problems in Russia resemble the “resource curse”. At the same time “resource curse” is a political theory that elaborates problems in the countries which for historical reasons had no other way of economic development except the export of minerals and petroleum. Russia obviously had alternative ways of development. That is why I see a need to find a different view of the problem.

The quest for solution of the problem of non-parties’ rights in PSAs begins with the question “What can be done by the parties to a PA, in particular, a PSA, during negotiating of the agreement and renegotiating (if any), in order to prevent social and environmental controversies?”

In summary, the problem of multi stakeholder evaluation of PSAs is now highly important, because the economic advantages of this type of PAs make them popular with most of the IOCs. At the same time PSAs encounter controversies during their implementation in several jurisdictions. The thesis aims to evaluate, in the context of sustainability, particular terms of existing model PSAs and some particular PSAs that were made public.

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<sup>30</sup> WWF-UK, Submission to ECGD on Sakhalin II, 28 April 2006 online at: WWF official website <[http://assets.panda.org/downloads/ecgd\\_sakhalin\\_submission.pdf](http://assets.panda.org/downloads/ecgd_sakhalin_submission.pdf)>; see also other WWF documents on the Sakhalin II project online at: WWF, <[http://www.panda.org/about\\_wwf/where\\_we\\_work/europe/where/russia/sakhalin/index.cfm](http://www.panda.org/about_wwf/where_we_work/europe/where/russia/sakhalin/index.cfm)>. *Pacta sunt servanda* (Lat.) - agreements must be kept.

## 1.4. Research Questions

There is no possibility to force a state to act as a good trustee regarding the interests of its citizens. There is no opportunity to develop novelties *de lege ferenda* to the legislation of all oil exporting or oil importing countries. However, there exists a chance to develop a list of legal instruments applicable during negotiations and renegotiations of PSAs. In my thesis I am going to analyze what can be done by the oil company to fix and stabilize its business. For a long time the very idea of renegotiation was debated because it brought uncertainty which is highly unwanted by oil operators and other investors. What is the legal result these instruments aim to achieve? The legal result is observation and protection of the non-parties' rights. Why should IOCs be interested in rights and legal interests of non-parties to a PSA? Neglecting these interests may lead to a conflict in the oil extracting area and most probably result in direct damage to IOC. This damage can be prevented or mitigated by in-time assessment of concurrent rights of other persons and communities, which use the same or even a different part of the ecosystem, to which the contract area of a particular PA belongs.

Historically the argument over natural resources and development passed several stages. In 1962 the General Assembly issued a resolution that recognized the state's permanent sovereignty over natural resources<sup>31</sup>. There is a dispute whether the GA meant the entire nation of the state or a particular people by writing "in no case may a people be deprived of its own means of subsistence"<sup>32</sup>. From 1962 until the present time, there is no unanimity

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<sup>31</sup> UN GA Res. 1803 (XVII), 17 UN. GAOR Supp. (No.17) at 15, U.N. Doc. A/5217 (1962).

<sup>32</sup> International Covenant on Civil and Political Rights, G.A. res. 2200A (XXI), 21 U.N. GAOR Supp. (No. 16) at 52, U.N. Doc. A/6316 (1966), 999 U.N.T.S. 171, entered into force Mar. 23, 1976.

among legal and political scholars on what was the meaning of “a people”, and the interpretation of these words in several declarations has great importance for the future of many ethnic minorities, and other communities that are distinct from the rest of the population of their country.<sup>33</sup> Nowadays there is a possibility to review renegotiation cases that arose from the sovereignty dispute in terms of the legal philosophy of sustainable development and multiple stakeholders. So, one of the significant issues elaborated further in this thesis is: What will be different in legal argument if we consider communities as separate stakeholders, take into account their cultural needs that are slightly or significantly different from those of other inhabitants of the oil and gas extraction area?

Due to this new political freedom, since 1962, many governments of developing countries reviewed their mineral and petroleum development policies and designed new legal instruments to replace mineral and petroleum concessions. Classical legal instruments, such as petroleum leases and concessions, were severely criticized by anti-colonialists and nationalists who used the idea of sovereignty over natural resources as a political slogan. Unfortunately, after the first and the second decades of implementation of newly designed petroleum agreements, these contracts were criticized again. The primary economic argument was that the development of natural resources and, first of all petroleum, played an incredibly significant role in the economic development of a particular nation.

The second stage of argument over petroleum agreements started in the late 1960s – early 1970s when national investment into petroleum development proved to be ineffective and governments had to invent legal instruments capable both to attract foreign investors and to

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<sup>33</sup> See: Ross, *supra* note 1, Szablowski, *supra* note 1; Barberis, *supra* note 6.

secure national economic interests. At that time PSAs *inter alia* were invented and won recognition within oil producing countries as a legal instrument that fulfills new political demands.

At the same time experts in international petroleum transactions focused upon the fact that petroleum investment needs economic stability and suggested “freezing clauses” and “renegotiation clauses”. This argument is also famous as “dilemma *pacta sunt servanda* vs. *rebus sic stantibus*”.<sup>34</sup> For a long time the controversy over negotiation and renegotiation was considered as a controversy between the IOC and the NOC or the host government. The rights and legal interests of non-parties to the agreement were not taken into account.

In 1980s and 1990s several resolutions and other UN documents introduced a different approach to agreements on petroleum exploration and exploitation. By their legal nature, these agreements are sometimes applied to the largely populated areas. The inhabitants of those areas are very rarely involved in the decision-making process during the negotiation of the agreement and have almost no means to protect its rights and legal interests except by means of a rebellion or separatist movement.<sup>35</sup>

The most significant issue on the subject is: what should be done to prevent breach of non-parties’ rights by the formation and implementation of petroleum agreements, in particular PSAs. Several questions need to be investigated in order to suggest a rationale for the protection of rights of local residents in PAs. First, it is sufficient to prove that there is a

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<sup>34</sup> T.W. Waelde *Stabilizing International Investment Commitments: International Law versus Contract Interpretation* (CPMLP Professional Paper No PP13, 1994).

<sup>35</sup> Barberis, *supra* note 6.



significant economic, environmental and social impact of petroleum industry activities. The changes brought by the petroleum development might be positive, negative or neutral for the local residents and other stakeholders. The main aspects of negative impact are administered by regulations of all levels, including the lower level, *i.e.* petroleum agreement, in particular, PSA. And second, it is necessary to discuss how this type of impact can be mitigated by some terms of PAs.

There is a need for criteria that would be helpful in distinguishing “good” and “bad” terms. Unfortunately there is no consent among legal and other scholars if such a distinction is always possible. Some researchers, for example, D. Johnston assert that each term has its own pitfalls.<sup>36</sup> A very different view is expressed by Z. Gao, who sees no good and bad terms, but a continuum from the least to the most favorable for the parties to the contract.<sup>37</sup> The criteria proposed by different authors are either economic, like efficiency of production share, tax system analysis *etc.* or environmental, for example sustainable decision making, intragenerationally equitable disposition of petroleum rights and others.

Another important aspect of the current research is why the parties to a PSA do not always choose the most favorable terms. A very common view is that the IOC has no responsibility for the rights of local residents; this is the duty that the host government should fulfill alone. On the other hand, many lawyers and economists investigating problems concerned with petroleum exploration and extraction point out that in the long run the IOC is even more

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<sup>36</sup> Johnston, *supra* note 5.

<sup>37</sup> Zhiguo Gao, “International Petroleum Exploration and Exploitation Agreements: A Comprehensive Environmental Appraisal” in Thomas W. Waelde & George K. Ndi (eds.) *International Oil and Gas Investment Moving Eastward?* (London/ Dordrecht / Boston: Graham & Trotman / Martinus Nijhoff, 1994).

interested in stability in the extraction area than the host government. Further it will be elaborated in the thesis that there are no strong parties in petroleum agreement negotiations, and each of the participants as well as non-parties has their own Achille's heel.<sup>38</sup>

The next set of issues to be investigated in order to answer the main question of the thesis is whether improperly assessed terms always cause problems and what can be done to prevent or mitigate harmful consequences. Nowadays there is a number of legal means that are used in such a situation. Some countries advocate their right for unilateral cancellation or change of PAs, some believe in adaptation and international commercial arbitration. Additionally, there is a strong support on one hand for the concept of renegotiation of the terms in order to protect the host government and its citizens and on the other hand for so called "freezing" clauses.<sup>39</sup>

The problem is that a renegotiation does not always reach its aim. In fact it can even aggravate the situation for non-parties. It will be elaborated in the thesis how the IOC can avoid unreasonable renegotiation, the host government can choose the best solution of impact assessment regulation and due consideration for the concerns of its citizens and how individuals or communities of local residents can protect their rights and legal interests during the formation and renegotiation (if any) of a PSA.

The legal issues that will be discussed in this thesis include the basic bargaining positions of the parties, environmental rights of non-parties, impact assessment and property rights for the resources and extracting equipment. It is hard to disapprove the conclusion made by

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<sup>38</sup> See: at p. 116-117 of this thesis.

<sup>39</sup> Wolfgang Peter, *Arbitration and Renegotiation of International Investment Agreements* (Dordrecht / Boston / Lancaster: Martinus Nijhoff Publishers, 1986).

S.S. Hollis and J.W. Berresford that oil and gas investors have significant opportunities, such as participation in the economical, political and social renaissance of many nations.<sup>40</sup>

In simple words, the legal issues considered in this research are designed to help answer a more general question: how IOCs can do it for their own benefit and for the benefit of the host country people?

### **1.5. Scope and the Limitations of Study**

The subject matter is the assessment of terms of PSAs which influence rights and legal interests of non-parties to a contract. Among the terms that influence rights, legal interests and basic needs of the population there are provisions about control of the petroleum *in situ*, conditions on area relinquishment, environmental obligations of the operator, impact assessment terms, dispute resolution issues and some others. The most important role in defense of non-parties' rights belongs to the impact assessment provisions and their link with renegotiation and adaptation regulations. This issue is very closely related to the dilemma of PA stability *versus* evolution.<sup>41</sup>

The hypothesis that will be proved throughout the thesis is that the host government and IOC often overlook some significant circumstances during formation of the contract, i.e. the preliminary social and environmental assessment was to some extent inaccurate. Additionally there is a possibility that parties as well as non-parties to a contract encounter

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<sup>40</sup> S.S. Hollis & J.W. Berresford, "Structuring Legal Relationships in Oil and Gas Exploration and Development in "Frontier" Countries" in T. W. Walde & G. K. Ndi (eds.) *International Oil and Gas Investment Moving Eastward?* (London: Graham & Trotman, 1994) at 29-59.

<sup>41</sup> Barberis, *supra* note 6.

hardships that could not be predicted and assessed properly during the formation of the PSA.

Obviously, all legal and political problems related to PSAs cannot be resolved in one thesis and deserve volumes of research in various sciences. Some of the problems of PSAs are typical for all PAs and are based on the social, environmental and social aspects of oil production. The research is narrowed to only one type of PAs, the production sharing contract, because this instrument is relatively new, if compared to other PAs, and at the same time is very popular both with host governments and IOCs. Besides, the performance of this type of PAs in several countries had some typical problems concerned with inaccurate impact assessment during the stages of formation or renegotiation.

It was proved by legal academics and other researchers that oil production can adversely impact social life of the residents of the oil producing area.<sup>42</sup> Numerous attempts to develop a universal mechanism which would be able to solve these problems all over the world were unsuccessful, because the social circumstances and the legal environment in every situation are unique.<sup>43</sup> The experience of oil development in many developed countries has much less negative impact on the surrounding area and its residents than that in developing countries. The proponents of the “resource curse” theory argue that democracy is able to prevent breach of rights and legal interests of local residents. I think that, even if this

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<sup>42</sup> See: Mikesell, *supra* note 2; Puvimanasinghe, *supra* note 4; Ibibia Lucky Worika, “Environmental Concepts and Terms in Petroleum Legislation and Contracts: A Preliminary Study” in Zhiguo Gao (ed.) *Environmental Regulation of Oil and Gas* (London / Hague / Boston: Kluwer Law International, 1998); see also; Onuosa, *supra* note 8; Gao, *supra* note 13; Waelde, *supra* note 34 *etc.*

<sup>43</sup> See generally: Gao, *supra* note 13; Bishop, *supra* note 19; Smith *et al.*, *supra* note 22.

assumption is correct, humankind has neither the time to wait nor opportunity to decrease oil demands until democracy is strong enough all over the world.

The resource curse is a great political theory: its proponents examined and provided commentaries on the numerous facts that evidence both difficulties in the formation of petroleum contracts and the need for consideration of non-parties' opinions in decision making. Worldwide democracy is a noble but distant goal whereas the aim of the current thesis is to elaborate small steps.

One of the mottos of the sustainable development doctrine is: "Think globally, act locally"<sup>44</sup>. The idea of sustainability is elaborated on international, national and regional levels, and thus it allows one to focus on local problems, which if solved can contribute to the achievement of the global aim. Taking into account that there are numerous writings on sustainable development, there is a necessity to narrow this theoretical framework. There are several ways to do so. The first is to use one of the several principles of sustainable development. For instance, E. Goudina in her thesis compared oil disposition rights using the principle of intragenerational equity,<sup>45</sup> but this method cannot be used for legal assessment of PAs. A particular agreement can fit one principle, for instance, intragenerational equity, and breach another principle or even group of principles, for example, the precautionary principle and intergenerational equity. The second way is to use sustainable development indicators to determine whether a particular PA is more sustainable or less sustainable than another PA. That way is effective for writings in

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<sup>44</sup> R.A. Eblen & W. Eblen, *The Encyclopedia of the Environment* (Boston: Houghton Mifflin Company, 1994).

<sup>45</sup> See: E.E. Goudina, *A Sustainable Development Critique of the Russian Oil and Gas Disposition System: Learning from Canadian Experience with Intragenerational Equity* (Calgary: University of Calgary, 2004).

petroleum economics but, unfortunately, cannot be that successful in legal research and analysis. The third way is to choose one theory within the doctrine of sustainable development, justify why this theory was chosen and how it is relevant to the current research. This is the approach chosen here. Specifically, this thesis is narrowed to the multi-stakeholders theory.

In addition, there are plenty of theories that elaborate particular issues relevant to the subject of this thesis. Among them there are foreign investment economics theories, renegotiation theory, neocolonialism and mineral investment dependency theories, *etc.* These theories provide many details that are important for this thesis; however they do not connect negotiation and renegotiation with socio-environmental impact assessment and thus can be used in this thesis only partially to support the expressed ideas.

## ***1.6 Theoretical Approaches to the Problem***

It is true to say that several theories have elaborated the controversy between the rights of local residents and legal (contractual) rights of the IOCs. They all agree that there are numerous reasons why this problem cannot be solved easily, but each theory tends to suggest its own reasons and own solutions. Thus, in this section I will overview relevant legal theories such as the resource curse, the post colonial critical theory and the doctrine of sustainable development and justify my choice of theoretical framework for the thesis.

One group of theorists says that these problems occur because of a lack of democracy in petroleum exporting countries.<sup>46</sup> The second group of approaches to the problems of local

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<sup>46</sup> See: Auty, *supra* note 10; see also: M.L. Ross "The Political Economy of the Resource Curse" (1999) 51 World Politics 297; Ross, *supra* note 1 *etc.*

communities sees contemporary foreign investment in the mining and petroleum industries of the developing countries as a new form of colonization and control over the former colonies. The third group of theories is focused on the socio-environmental balance suggest several solutions in terms of sustainable development doctrine.<sup>47</sup> The fourth group of theories is about multi-stakeholders, and they suggest *inter alia* well balanced regulation of ecosystem use.<sup>48</sup>

The vast majority of PSAs were made between host governments of developing countries and IOCs which have headquarters in developed countries. It is true to add, that the Russian experience with PSAs is unique for a developed country, it gave rise to numerous articles on the resource curse in countries with economies in transition<sup>49</sup>, such as Russia and some former USSR Republics such as Kazakhstan, Turkmenistan and Azerbaijan. No European countries had ever used PSA.<sup>50</sup>

It also may appear that the PSA is a new instrument of so-called modern imperialism, or technological colonialism. This criticism is very widespread within contemporary nationalist theorists, and it is absolutely inaccurate. PSA is a contract

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<sup>47</sup> See: Onuosa, *supra* note 8 at 433.

<sup>48</sup> See: R.J. Grimble & M.-K. Chan, "Stakeholder Analysis for Natural Resource Management in Developing Countries" (1995) 19(2) Natural Resources Forum 113; Keiter, Robert B. "Ecosystems and the Law: Toward an Integrated Approach", (1998) 8 (2) Ecological Applications 332.

<sup>49</sup> Jonathan Price, "Restructuring of the Russia Oil Industry" in Thomas W. Waelde & George K. Ndi (eds.) *International Oil and Gas Investment Moving Eastward?* (London/ Dordrecht / Boston: Graham & Trotman / Martinus Nijhoff, 1994).

<sup>50</sup> The concept of PSA is described in broader detail in Chapter 3, the history of PSAs' implementation is discussed in Chapter 4 of this thesis.

“where the foreign firm and the government share the output of the operation in predetermined proportions <...> the host state is theoretically the undisputed owner of the petroleum with the foreign company being engaged as contractors to perform certain specified tasks in return for a fee of a kind”<sup>51</sup>

Thus, I absolutely agree with Y. Omorogbe and E. Smith, who write that PSA is a sort of farmout agreement.<sup>52</sup>

The resource curse theory states that oil export itself destroys democracy and leads to aggravation of the situation in the oil extraction area and finally to an “oil conflict” mostly because of the non-competitive growth of oil dependent economics.<sup>53</sup> Besides, economic and political scholars investigating the resource curse affirm that not only petroleum resources *in situ* can cause the “resource curse”, but any type of natural resources. There is even one example of a resource curse study based on the wild pearl collecting.<sup>54</sup> The common feature of resource dependent economies is that there is no need to invest into high technologies when the global market demands something that can be just extracted from subsoil or from the sea.<sup>55</sup> Nonetheless, most authors define resource curse as a problem of oil-rich countries. For example, T.L. Karl defines resource curse as “a political

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<sup>51</sup> Y. Omorogbe “The Legal Framework for the Production of Petroleum in Nigeria” 5 (1987) *J. Energy & Nat. Res. L.* 273 at 273, 279. This characteristic of a PSA is also true for some other modern PAs, for example, for the risk-service contracts and hybrids. For a definition of a PSA see chapter 3 of this thesis at 83-84.

<sup>52</sup> Omorogbe, *supra* note 50; Ernest E. Smith “Typical World Petroleum Arrangements”, 1991 *Institute on International Resource Law: Rocky Mountain Mineral Law Foundation* 9-1 (1991) at 9-34.

<sup>53</sup> Auty, *supra* note 10.

<sup>54</sup> See: Ross, *supra* note 1, Michael M. Ross “How Mineral-Rich States Can Reduce Inequality” in M. Humphreys, J.D. Sachs & J.E. Stiglitz (eds.) *Escaping the Resource Curse* (New York: Columbia University Press, 2007).

<sup>55</sup> Ross, *supra* note 1; William Tompson, “A Frozen Venezuela? The ‘Resource Curse’ and Russian Politics” in Michael Ellman (ed.) *Russia’s Oil: Bonanza or Curse?* (2006) online: Birkbeck ePrints, <[http://eprints.bbk.ac.uk/archive/00000256/01/Frozen\\_Venezuela.pdf](http://eprints.bbk.ac.uk/archive/00000256/01/Frozen_Venezuela.pdf)>.



problem about the efficient, transparent and just distribution of costs and benefits from the world's most valuable commodity".<sup>56</sup> This definition has two weak points: it is tough to set the standard for the just distribution of a scarce and crucially important commodity and the costs of extraction of hydrocarbons are still debated among the most prominent contemporary economists.

The authors that support the resource curse theory usually provide plenty of details of oil conflicts and controversies. Unfortunately there is still no affordable and widespread substitute for the oil and thus the resource curse is not an effective theory for PA assessment. At the same time the resource curse theory gave rise to a prolonged debate and many scholars criticized the view that petroleum deposits are a curse. Among them there are, for instance, D. Rodrick, N. Birdsall and M. Alexeev, who think that the calculations proving the resource curse were partially inaccurate and did not take into account whether the economics and politics of oil dependent countries could be different, if there was no oil in these countries.<sup>57</sup> Surprisingly, their results disapprove the idea that oil is a curse. Besides, the number of developed oil-rich countries for which oil export is a benefit, and not a curse proves, that an alternative way of petroleum regulation exists.

No need to argue that the lack of democracy and high corruption rate has adverse impact on all spheres of life in the state no matter, if there are rich mineral and petroleum deposits or none of them. The accidents of non-compliance of non-democratic regimes with

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<sup>56</sup> Terry Linn Karl, "Ensuring Fairness: the Case for a Transparent Fiscal Social Contract" in M. Humphreys, J.D. Sachs & J.E. Stiglitz (eds.) *Escaping the Resource Curse* (New York: Columbia University Press, 2007).

<sup>57</sup> See generally: Tompson, *supra* note 54; see also: Nancy Birdsall & Arvind Subramanian "Saving Iraq from Its Oil" (2004) 83 (4) *Foreign Affairs* 77 at 77-89.

international environmental standards are similarly frequent both in extractive activities (if any) and in other industries.

The group of legal theories that helps in balancing such categories as human rights, human basic needs, state sovereignty, development and environment is the doctrine of sustainability. Within the neoclassical economic approach, Solow wrote several articles on sustainable development and its critique.<sup>58</sup> The key work is the article *An Almost Practical Step towards Sustainability*. Besides giving his own definition of sustainable development, Robert Solow in this article proves that environment is a commodity which is usually undervalued because of the opportunity to be used free of charge. On one hand, he criticizes several aims of the sustainable development program (e.g. conservation and intergenerational equity), on the other hand, he advocates “correcting national accounts to reflect environmental amenities”.<sup>59</sup> This work names the obstacles for sustainability: technical and socio-economic. By words “free of charge” Solow implies free of charge for those who used, but it not necessarily means that it was absolutely free for everyone. Someone has to pay and that opinion can be helpful in the framework of instruments that prevent *damnum absque injuria* during the formation and implementation of PAs.

## 1.7 Conclusion

To sum up the theoretical framework of the thesis, it is important to emphasize that the resource curse theory and post-colonial theories are suitable for petroleum investment argument regarding developing countries only. This research includes PSA practices and

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<sup>58</sup> The definition, content, principles of sustainable development as well as links of sustainability and petroleum are described in broader details in Chapter 2 of this thesis.

<sup>59</sup> Solow, *supra* note 10 at 166.

common pitfalls both in developing countries and in a developed country, and that is why the political philosophy of “our common future” is more appropriate for the problems discussed. The common idea of all theories described *infra* is that petroleum investment agreements and petroleum industry activities should be more fair and transparent. In addition, they all seek for new and better guarantees for human rights.

I have chosen sustainable development theory as a theoretical framework for my research because it is the most suitable theory for solving the problem I am working on. Both researchers and politicians understand that foreign investment provides additional opportunities at the expense of additional risks. This thesis aims at analyzing these risks, detailed investigation into the negative impacts of foreign direct investment as well as elaborating legal instruments that help in decreasing these risks and diminishing negative effects.

International investment is critically important for inducing and maintaining development, and globalization gives incredible opportunities for transboundary capital flows. Still this development will be sustainable only if its environmental and social impacts are properly assessed, compensated and ecosystems will be able to support future generations.

The next chapter will examine the connections between the theory of sustainable development and the practice of petroleum investment.

## Chapter Two.

### Links between Sustainability and Petroleum Agreements

#### 2.1. Introduction

The aim of this chapter is to discuss how the principles of public law and the legal philosophy of sustainable development can be relevant and helpful in the assessment of a private legal instrument, such as a PA. The core questions of this chapter are: (1) what development is sustainable; (2) whether sustainable development is applicable to the mining industry; (3) how it is applicable to non-renewable resources; (4) who the actors in sustainable regulation are. In order to answer the first question the chapter overviews the concept of sustainability in general, the goals of sustainability and sources of international law that reflect those goals. To address and respond to the second issue, the chapter summarizes and analyzes scholarly opinion on sustainability in the mining and the oil and gas industry, such as: the negative opinion on sustainability in mining and petroleum sector, the possibility of *non-stricto sensu* sustainable mineral development and oil mining, and sustainable “ecosystem use” approach. Subsequently, in the third subsection, I discuss the role and limits of the state’s sovereignty over mineral resources, whether it is or can be limited and what those limits are. Sovereignty is essential for understanding the role of the state in public-private relations. Nowadays sovereignty over natural resources might serve as a significant impulse towards sustainability and at the same time as a substantial obstacle in achieving it. In the fourth and fifth subsections, I elaborate the principles of sustainable investment and the links between public international norms and private investment instruments. The fourth subsection describes general principles of socially responsible (*i.e.* sustainable) investment. In the fifth subsection I discuss the private-public aspects of

sustainability and point out which elements of PA are entirely private, entirely public or of mixed private-public nature. The analysis of oil mining activities in the multi-stakeholder perspective brings to attention numerous interests of different groups of people. For the implementation of the PA in a stable social and political framework, these interests should be considered during the formation and implementation of the PA. The sixth part of this chapter analyzes the criteria for assessment of PA from a multi-stakeholder view. The seventh section discusses the sophisticated connection between the principles and approaches of sustainable development and elaborates, which terms of PAs contribute to sustainability. The conclusion summarizes my reasons for the choice of the multi-stakeholders approach for solving the problem discussed in this thesis.

## ***2.2. The Concept of Sustainable Development***

The concept of sustainable development is interdisciplinary: it deals with economic systems, international and national policies, ecosystems, social institutions like culture and education, international trade and of mankind's survival. Although many volumes on sustainable development have been written, in most cases scholars apply this theory to the issues of climate change, air pollution, disposal of hazardous wastes *etc.* Unfortunately, petroleum development and mining relations in the context of sustainable development are not among the most prevalent concerns of these authors.<sup>60</sup>

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<sup>60</sup> Robert W. Collin, "Review of the Legal Literature on Environmental Racism, Environmental Equity and Environmental Justice" (1994) 9 J. Env'tl. L. & Litig. 121 at 143.

The ideas for sustainable development were conceptualized by the WCED and put together in its report *Our Common Future*.<sup>61</sup> During the past two decades this theory has become incredibly popular within political, legal, environmental and economic academic communities. Nowadays sustainable development can be described as an environmental philosophy with many theories within it. All scholars agree that the resources of the Earth have a finite nature<sup>62</sup>, and almost every business activity albeit in varying degrees threatens the environment.<sup>63</sup>

Generally, many scholars agree with the idea of limitation of industrial development for the sake of survival of mankind. The disputes begin when it is necessary to decide what we are going to sustain and what restrictions on development are inductive to these goals. There are two main approaches to this issue. Pure environmentalists support the policy of preservation or natural evolution of ecosystems. The anthropocentric approach is focused on preservation or responsible management of the ecosystem in ways that will be the most effective for fulfillment of basic human needs. The anthropocentric approach takes into account the fact that changes in the Earth's ecology happened throughout millennia and human history does not provide enough information for environmental science to split natural or evolutionary changes from anthropogenic impacts. The anthropocentric approach to sustainability thus examines the ability of humankind to deal with the scarce resources of our planet in order to survive.

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<sup>61</sup> The World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987) [Brundtland Report].

<sup>62</sup> Collin, *supra* note 60 at 144; see also: John L. Warren, "How Do We Know What Is Sustainable" in Douglas F. Muschet (ed.) *Principles of Sustainable Development* (Florida: St. Lucie Press, 1997) at 132.

<sup>63</sup> Solow, *supra* note 10 at 166; Neil Evernden, *The Natural Alien: Humankind and Environment*, 2nd ed. (Toronto: University of Toronto Press, 1993).

The concept of sustainable development is mostly based on the anthropocentric approach, because it “aims to prevent mankind from environmental catastrophe”. The anthropocentric goals are pointed out in Brundtland Report as development for human beings, but without threatening nature.<sup>64</sup> In the Report, sustainable development is defined as one “that meets the needs of the present without compromising the ability of future generations to meet their own needs”.<sup>65</sup> This statement is very helpful in understanding the goals of sustainable development but it cannot be used in legal or political disputes, because the term “needs” is imprecise. First of all, the needs of future generations are unknown and thus Brundtland’s definition can be used to bound current development with unnecessary limitations which would also compromise the abilities of future generations and at the same time threaten the abilities of the present. So in 1987 it was already evident that the newly introduced theory would evolve and develop more practical goals, principles and legal instruments. Besides, many economic scholars proved that human needs always exceed the amount of goods supplied and never can be entirely met.<sup>66</sup> Some scholars think that there is no difference between basic needs and human rights.<sup>67</sup> The alternative view is that basic needs are ones that are critical for human survival, in particular shelter, food, medical treatment *etc.*<sup>68</sup> The middle path in economic studies is described as “metaproduction function”. It means, for

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<sup>64</sup> Brundtland Report, *supra* note 61 at 44.

<sup>65</sup> *Ibid.*

<sup>66</sup> See *e.g.*: Len Doyal & Ian Gough, *A Theory of Human Need* (New York, NY: Guilford Press, 1991); John Burton, *Conflict Resolution and Prevention* (New York: St. Martins Press, 1990).

<sup>67</sup> Vaughan Lowe, “Sustainable Development and Unsustainable Arguments” in Alan E. Boyle & David Freestone (eds.) *International Law and Sustainable Development* (New York: Oxford University Press, 1999) at 19-38.

<sup>68</sup> Burton, *supra* note 66; Richard E. Rubenstein, “Basic Human Needs: The Next Steps in Theory Development”(2001) 6 (1) *The International Journal of Peace Studies*, online: George Mason University, <[http://www.gmu.edu/academic/ijps/vol6\\_1/Rubenstein.htm](http://www.gmu.edu/academic/ijps/vol6_1/Rubenstein.htm)>

instance, that there is enough appropriate food in the area and the population can afford to buy it; or there is enough clear water in the region and all residents have free (affordable) access to it.<sup>69</sup> In legal studies, the middle path of understanding basic needs is converging with human rights and takes into account their enforcement at all levels of regulation.

There is a link between sustainability and territory, for example Prof. Brown Weiss wrote about the levels of sustainability, which are global, national and regional.<sup>70</sup> Similarly, Gallopin and Raskin in their book *Global Sustainability: Bending the Curve* pointed out global, regional, national and local levels of sustainability.<sup>71</sup> In federal states there are two levels of national sustainability, which are: the federal level and the level of the federation units. Gallopin and Raskin also discuss the connection between levels of sustainability.<sup>72</sup> In this thesis the issues of sustainability are usually addressed at several levels. The international level argument is involved, because this thesis is related to foreign investment policies. The local level of sustainability is essential for contract implementation in a particular area. The link with the national level is also elaborated, because the host government is one of the participants in the petroleum investment relations.

Previously, almost a century ago, economic science described two paths of development: intensive and extensive increase of producing capacity. Extensive development pattern

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<sup>69</sup> Frances Stewart "Basic Needs, Human Rights, and The Right to Development" (1989) 11 Hum. Rts. Q. 347.

<sup>70</sup> E. Brown Weiss, "Environmental Equity: The Imperative for the 21<sup>st</sup> Century" in Winfried Lang (ed.) *Sustainable Development and International Law* (London / Dordrecht / Boston: Graham&Trotman / Martinus Nijhoff, 1995) at 17-22.

<sup>71</sup> Gilberto C. Gallopin & Paul D. Raskin, *Global Sustainability: Bending the Curve* (London: Routledge, 2002) at 4 - 7.

<sup>72</sup> *Ibid.*



implies that for boosting the amount of the produced goods the entrepreneur uses more and more resources, primarily raw materials and land surface. Intensive production increase means that the industrialist uses the same amount of resources but employs more advanced technologies in order to extend the output. So, the idea of minimizing resource use and maximizing technology innovations existed long before the concept of sustainable development.

Yet, sustainability is an absolutely new paradigm of development. The first distinction between paradigms of conventional development and sustainable development is related to time perspectives. Conventional development aims at the maximization of benefits in the shortest time possible. Sustainable development presumes assessment of an economic activity from the long term point of view. It also allows sacrificing some short term benefits, if they result in resource overexploitation. The second difference is that sustainable development assigns the same importance to social and environmental issues as to economic growth. Third, sustainable development places some public interests, for example appropriate fiscal and resource use policies, above private ones. Fourth, as many proponents of sustainability mention, social and environmental costs are not included in GDP statistics and conventional economic growth, at the expense of overexploiting nature and resources and at the expense of social conflicts, is a regress in the context of sustainable development. In contrast, the “rehabilitative” costs being included in manufacture costs can decrease GDP or slow its growth. However, social and environmental costs, if paid, reduce the possibility of natural and social disasters and thus contribute to stability and sustainability. The fifth aspect of the paradigm of sustainability is

that the government “can and must correct market failures by imposing the right policies”<sup>73</sup> Thus, sustainable development is a concept which is concerned with a reasonable balance between economic growth and conservation of the environment.<sup>74</sup> The balance should be found among ecological, economic and social values.<sup>75</sup>

The paradigm of sustainability also has a history of changes. The most detailed picture of these changes can be portrayed by analysis of normative or legal sources on the concept of sustainable development. The first legal implications on environmental resource management were expressed at the Stockholm Conference on the Human Environment in 1972.<sup>76</sup> In 1980 the International Union for the Conservation of Nature and the UN Environment Program and the World Wildlife Fund developed the World Conservation Strategy, which elaborated the concept of environmental protection for the sake of survival of the human species. In 1983-1987 the World Commission on Environment and Development explored the major global problems in management of natural resources. Gro Harlem Brundtland, the Chairman of the Commission presented the report *Our Common Future*, which is no doubt a significant milestone in the progress of the legal implications of sustainability. The report set the most fundamental objectives of sustainable development, which are (1) promoting economic growth aligned with rational energy use

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<sup>73</sup> Emil Salim, “The Paradigm of Sustainable Development” in *Institutionalizing Sustainable Development* (OECD, 2007) at 28.

<sup>74</sup> David Pepper, *Eco-Socialism* (London: Routledge, 1993); Val Plumwood, *Feminism and the Mastery of Nature* (London: Routledge, 1993); Lynn White, “The Historical Roots of Our Ecological Crisis” in Roger S. Gottlieb, (ed.) *This Sacred Earth* (New York: Routledge, 1996) at 1202-1207; Solow, *supra* note 10.; Evernden, *supra* note 62 etc.

<sup>75</sup> Brundtland Report, *supra* note 61.

<sup>76</sup> P.K. Rao *Sustainable Development Economics and Policy* (Malden, MA: Blackwell Publishers Ltd., 2000) at 8.

and other improvements of the quality of environment, (2) meeting basic needs of the present generation, such as: jobs, food, energy, water and sanitation, (3) reorienting technology, (4) setting a new pattern for technology and risk management, (5) amalgamating environmental and economic decision making, (6) taking into account population growth and considering probable needs of future generations.<sup>77</sup>

In 1992, the UN Conference on Environment and Development in Rio de Janeiro produced two international agreements, two statements of principles and a detailed action agenda on global sustainable development.<sup>78</sup> The Conference in Rio de Janeiro was the event that initiated a new paradigm of sustainability. Several prominent academics, economists, lawyers and many other experts developed a theory of “sustainable capitalism”, which is based on the assumption of the permanent social and technological evolution of the humankind. For example, chapter 8B of Agenda 21 states that an “effective legal and regulatory framework” is essential for balancing of environmental and developmental goals in national policies. Since then the law of sustainable development goes forward at international, regional and national levels. In addition, since the Rio Conference the focus of sustainable development studies shifted from conservation of every known resource to cooperation at different levels and in various fields.

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<sup>77</sup> A. Kiss & D. Shelton *International Environmental Law*, 2<sup>nd</sup> ed. (New York: Transnational Publishers Inc., 2000) at 248.

<sup>78</sup> See generally: online at UN Conference on Environment and Development 1992, <<http://www.un.org/geninfo/bp/enviro.html>>.

Among the most recent events and documents on sustainability it is necessary to mention the Johannesburg Declaration on Sustainable Development and Plan of Implementation, which were presented in 2002.

Current academic thought on the content of sustainable development is not unanimous and the number of lists of principles of sustainable development can easily compete with the variety of definitions.

The International Institute for Sustainable Development delineates 98 principles of sustainable development.<sup>79</sup> The Rio Declaration contains 27 principles.<sup>80</sup> The Summit in New Delhi in 2002 named seven principles: (a) the duty to ensure sustainable use of natural resources, (b) the principle of equity and eradication of poverty, (c) the principle of common and differentiated responsibilities, (d) the precautionary principle, (e) the principle of public participation, (f) the principle of good governance, (g) principle of integration and interrelationship.<sup>81</sup>

Some researchers create their own hierarchies of principles. For example, in the article *Principles and Approaches of Sustainable Development and Chemicals Management for a Strategic Approach to International Chemicals Management*, Wiser and Magraw Jr. make a hierarchical list of principles of sustainable development for chemicals management. Their list contains 15 principles, which include (1) integrated chemicals management, (2) inter-

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<sup>79</sup> The latest version of the list of principles of Sustainable development is available online: International Institute for Sustainable Development, <<http://www.iisd.org/sd/principle.asp>>.

<sup>80</sup> *Declaration on Environment and Development*, 1992. UN Doc. A/CONF.151/26/REV.1, Vol. 1, 12 August 1992.

<sup>81</sup> ILA Resolution 3/2002: New Delhi Declaration Of Principles Of International Law Relating to Sustainable Development, in ILA, Report of the Seventieth Conference, New Delhi (London: ILA, 2002).

generational equity, (3) precautionary principle, (4) proportionality of protective measures, (5) proportionality, (6) life cycle approach, (7) prevention of environmental and social harm, (8) substitution, (9) polluter-pay principle, (10) public participation, (11) public access to environmental information, *etc.* This classification includes *inter alia* the principle of equity, which consists both of intragenerational and intergenerational equity.<sup>82</sup> Most theoretical hierarchies of principles name as the most significant principles: (a) integration, (b) sustainable resource, energy *etc.* use, (c) equity (both intra- and intergenerational), (d) the right to sustainable development and (e) the duty to co-operate.<sup>83</sup> It is fair to mention, that nowadays many theorists think that there is not much difference between the notions of “principle” and “approach” within the concept of sustainable development. Besides, any disproportional observation of one principle at the expense of others is not appropriate for a sustainable policy and regulation. In addition, some scholarly approaches to sustainability are not focused on particular principle, *e.g.* multi-stakeholder approach, sustainable strategy and integrated management approach *etc.*

The questions that I explore are: how the provision of these public International law documents can be helpful in assessing and perfecting PAs; what principles are relevant to mining and petroleum development? Among the numerous documents on sustainability only World Summit in Johannesburg in 2002 set a goal of achieving by 2020, that “chemicals are used and produced in ways that lead to the minimization of significant

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<sup>82</sup> G.M. Wiser & D.B. Magraw Jr., “Principles and Approaches of Sustainable Development and Chemicals Management for a Strategic Approach to International Chemicals Management” (July 2005) online: The Center for Environmental Law, <[http://www.ciel.org/Publications/SAICM\\_PrinciplesStudyFinal\\_July05.pdf](http://www.ciel.org/Publications/SAICM_PrinciplesStudyFinal_July05.pdf)>.

<sup>83</sup> See: Duncan French, *International Law and Policy of Sustainable Development* (Manchester: Manchester University Press, 2005); Ekaterina E. Goudina, “Sustainable Development Critique of the Russian Oil and Gas Disposition System: Bibliography” (2004), online: the University of Calgary <[http://www.law.ucalgary.ca/documents/student\\_bibliographies/L701\\_goudina\\_annotated\\_bibliography.pdf](http://www.law.ucalgary.ca/documents/student_bibliographies/L701_goudina_annotated_bibliography.pdf)>.

adverse effects on human health and the environment.” The more detailed approach is suggested by the Strategic Approach to International Chemicals Management.<sup>84</sup>

The approach of developing principles of sustainable development for a particular field has proved to be the most effective. Thus, further research flows from the general to the specific and takes into account such aspects of PAs as the development of a non-renewable resource, foreign direct investment, sovereignty over natural resources and roles of the multiple stakeholders in petroleum development.

### ***2.3. Non-Renewable Resources and the Concept of Sustainability***

There is a strong argument within the theory of sustainable development regarding the possibility to develop sustainable strategies and policies for the development of non-renewable resources. *Our Common Future* states that “sustainable development requires that the rate of depletion of non-renewable resources should foreclose as few options as possible”<sup>85</sup> Thus, in general the Brundtland Report aims at sustainable development of non-renewable resources, but it also takes into account both technological and social limits.

First, the companies had a negative view on the sustainable development of non-renewable resources. They understood it as a threat to the stability of their contracts, they expected tax increases because of polluter-pay principle, and most of all they were against limitations on amounts of production for the purposes of conservation. The critique of sustainable development theory from the point of view of IOCs performed two important functions: (1)

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<sup>84</sup> See: Wiser & Magraw, *supra* note 82.

<sup>85</sup> Brundtland Report, *supra* note 61 at 46.

it contributed to further development of this theory, (2) it resulted in scholarly proven mutuality of interests of the state party and contractor party.

Daniel Yergin in *The Prize: The Epic Quest for Oil, Money and Power* provides historical analysis of petroleum activities from the 1850s through 1990s, and justifies companies' approach to oil development. He agrees that they should be responsible for good oil field practice, but should not bear the social responsibility for the state's faults. He says that economic growth depends on trade which is now global.<sup>86</sup> This book is extremely helpful in understanding the relations among all parties (as well as non-parties) to a petroleum contract.

In addition, most economists affirm that our society's dependence on hydrocarbon fuels and petroleum development is a necessary evil because there are no substitutes to such commodities as oil and gas.<sup>87</sup> For example, Adelman in *The Economics of Petroleum Supply* writes that the assumption that there exists an exhaustible natural resource, a fixed stock of oil, is wrong. The total amount of minerals in the Earth is "an irrelevant non-binding constraint". He affirms that "if expected finding-development costs exceed the expected revenues, investment dries up and the industry disappears"<sup>88</sup>.

Many researchers criticize the very idea of regulation of the petroleum market, as well as any regulation of the market by the state, which they call "etatism". Their opponents think

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<sup>86</sup> Daniel Yergin, *The Prize: Epic Quest for Oil, Money and Power* (New York: Simon & Shuster, 1991) at 389.

<sup>87</sup> Onuosa, *supra* note 8 at 433; see also: Solow, *supra* note 10.

<sup>88</sup> Morris A. Adelman, *The Economics of Petroleum Supply* (Massachusetts: MIT Press, 1993) at 220.

that (a) there is no explicit link between regulation of development and regulation of the market, (b) increased costs in the short run are profits in the long run,<sup>89</sup> (c) the critique of “etatism” is not applicable to the relations, in which the state is a party.

Sustainability is a dynamic concept, because it aims at balancing elements which change permanently. Societies, technologies and cultures change, environments change, values and aspirations also change *etc.* Thus, a theory of sustainable development must allow and maintain such change. A particular PA meets more requirements of sustainable development, if its drafters take into account the need for some flexibility in the petroleum contract.

Almost all researchers agree that the development of petroleum can be sustainable only to some extent.<sup>90</sup> In this view the demand in petroleum fuels, as well as the absence of substitutes, should be considered as an obstacle for achieving sustainable resource use, but not as a justification for unsustainable use. It is just that the criteria for assessment of petroleum development should reflect the non-renewable nature of this resource.

Although sustainable development of petroleum resources is not possible *stricto sensu*,<sup>91</sup> most principles of sustainable development, like shared management of resources,

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<sup>89</sup> See: Yergin, *supra* note 86.

<sup>90</sup> See: French, *supra* note 83; see also: Onuosa, *supra* note 8; Yergin, *supra* note 86.

<sup>91</sup> See: W. Lang, “From Environmental Protection to Sustainable Development: Challenges for International Law” in Winfried Lang (ed.) *Sustainable Development and International Law* (London / Dordrecht / Boston: Graham&Trotman / Martinus Nijhoff, 1995).



responsibility for caused impacts, duty to co-operate and others still can be applied to this industry. This approach is referred as development in a “quasi-sustainable manner”.<sup>92</sup>

Wilfred Beckerman in his article *Sustainable Development’: Is it a Useful Concept?* writes that the concept “mixes together the technical characteristics of a particular development path with a moral injunction to pursue it”.<sup>93</sup> He points out the critical importance of taking a technological approach to sustainable development, provides examples how innovations can contribute both to the preservation of nature and to achieving social goals.

Dixon and Fallon, in the article *The Concept of Sustainability: Origins, Extensions, and Usefulness for Policy*, summarize arguments on technical obstacles to sustainability. They also discuss the basis for a further clarification of types of sustainable development by identifying three types of resource usage: (a) a purely physical concept for a single resource: the scope of sustainability is limited to particular renewable resources considered in isolation, with sustainability simply implying a usage no greater than the annual increase in the resource, without reducing the physical stock; maximum sustainable yield, maximum sustainable cut. (b) The physical concept for a group of interrelated resources (ecosystem): explicit attention is devoted to different aspects of the ecosystem. Any type of industry including mining creates problems with increased soil erosion, changes in water yield, wildlife habitat and species diversity. Thus, its sustainability should be examined in the context of the entire system. (c) A socio-economic-physical concept: the goal is not just a

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<sup>92</sup> Onuosa, *supra* note 8 at 444.

<sup>93</sup> Wilfred Beckerman, “Sustainable Development: Is It a Useful Concept?” (1994) 3(3) *Environmental Values* 191 at 193.

sustained level of a physical stock or the physical production of a given ecosystem, but an unspecified “sustained increase in the level of societal and individual welfare”.<sup>94</sup>

Thomas Waelde in the article *Natural Resources and Sustainable Development: from “Good Intentions” to “Good Consequences”* discusses the scarce resource critical theory by Stanley Jevons, a prominent economist of the 19<sup>th</sup> century, who predicted that coal deposits in the earth would be exhausted in 150 years. Waelde says that now, when 150 years have passed, the earth still contains rich deposits of coal and this fossil is not that important for civilization any more. Waelde expresses the opinion that sustainability is not about the conservation of a particular resource. Sustainability is about the balance of three main objectives.<sup>95</sup> Beckerman’s and Waelde’s arguments are very helpful for the debate on technological obstacles for sustainable development. It is not the resource itself, but ecosystem in general that should be sustained. Besides the petroleum deposit there are the environment of exploitation area, the population of that area and socio-economic effects of the petroleum development. In addition, rational use of oil and gas gives us more time to develop substitute energy sources. Thus, the assessment and analysis of the PA negotiation, implementation and further life circle of the contract should be focused not on petroleum as a scarce resource, but on the social impact of petroleum investment and the destiny of the rest of the ecosystem which contains petroleum deposits.

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<sup>94</sup> John A. Dixon & Louise A. Fallon, “The Concept of Sustainability: Origins, Extensions, and Usefulness for Policy” (1989) 2 *Society and Natural Resources* 73.

<sup>95</sup> Waelde, *supra* note 5 at 126 and 129.

A significant contribution to the regulation of investment in the mining and petroleum industry was made by the *Principles of Responsible Investment*.<sup>96</sup> The principles are not compulsory and cannot be imposed; their primary purpose is to help the investor to cope with its new role in social and environmental development of mineral extraction areas. The principles were designed in 2005 - 2006 by a group of representatives of the world's largest institutional investors. Individuals representing 20 transnational investment companies from 12 countries agreed to participate in the Investor Group. They were supported by a 70-person multi-stakeholder group of experts from the investment industry, NGOs, civil society and academia. The process was coordinated by the United Nations Environment Program Finance Initiative (UNEP FI) and the UN Global Compact.<sup>97</sup>

Whittaker and Weaver describe sustainability in the petroleum sector of industry as a triple bottom line, which summarizes the objectives of sustainable development in the following way: (1) economic progress can be measured as a sum of corporate and national growth and expressed in earnings, taxes and other economic indicators; (2) industry and government should cooperate for achieving such environmental goals as: mitigation of mining effects, pollution reductions and preservation of unique ecosystems and their sufficient elements (3) both parties should aim at corporate social progress, measured as support of social stability, creation of new workplaces and improvement of labor standards, respect and protection of human rights.<sup>98</sup>

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<sup>96</sup> See generally: *Principles of Responsible Investment*, online: Principles of Responsible Investment <<http://www.unpri.org/>> [UNPRI].

<sup>97</sup> *Ibid.*; see also: *Principles for Responsible Investment*, online at: UN PRI, <[www.unglobalcompact.org/docs/issues\\_doc/Financial\\_markets/PRI\\_Brochure\\_electronic\\_version.pdf](http://www.unglobalcompact.org/docs/issues_doc/Financial_markets/PRI_Brochure_electronic_version.pdf)>.

<sup>98</sup> See generally: M. Whittaker "Emerging 'Triple Bottom Line' Model for Industry Weights Environmental, Economic and Social Considerations" (1999) *Oil & Gas J.* 23; see also: J.L. Weaver "Sustainable

Taking into account the shift in paradigms of sustainability, I conclude that in the mining and petroleum sectors not sustainability itself, but development towards sustainability, is to be measured and assessed. Sustainability as a continuously improving the balance amongst social, environmental and economic development is not achievable by contemporary means, at least as long as economies at all levels are somehow dependent on non-renewable resources. Nevertheless practical steps towards sustainability are possible.

Among such steps there are: (1) consideration of public opinion, (2) involvement of NGO experts in assessment procedures, (3) monitoring impacts during implementation of PAs, (4) regular upgrade and urgent review of agreements, if the preliminary assessment was inaccurate or in cases of significant social or environmental changes in the extraction area.

## **2.4. Sovereignty over Natural Resources and Sustainability**

The concept of sovereignty as the supreme power of the state within its territory and protection of the state's interests in international affairs even beyond national borders has been studied and discussed for many years since Jean Bodin in 1576 expressed the key principles of sovereignty.<sup>99</sup> The concept of sovereignty evolved together with such legal and political phenomena as the state, civil society, independence movements, globalization and others. In the last third of the 20<sup>th</sup> century the concept of sovereignty was extrapolated to the natural resources of the state. Among the impacts of the concept of sovereignty on natural resources management there are: (1) increase of state's participation in petroleum

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Development in the Petroleum Sector" in A.J. Bradbrook & R.L. Ottinger (eds.) *Energy Law and Sustainable Development* (IUCN, 2003).

<sup>99</sup> J. Bodin, *Six Books of the Commonwealth* // Abridged and translated by M. J. Tooley, 1967; online at <[http://www.arts.yorku.ca/politics/comminel/courses/3020pdf/six\\_books.pdf](http://www.arts.yorku.ca/politics/comminel/courses/3020pdf/six_books.pdf)>.

industry, mainly as the owner of NOC; (2) critique of the classical concession contract, as a threat to national sovereignty and development of new PAs; (3) alteration of the role of the IOC in exploration and extraction of oil and gas, (4) acknowledgement of the weak bargaining position of the least developed countries and economies with abundant external debt, (5) increasing co-operation between oil-exporting countries in order to defend national interests.<sup>100</sup>

The theory of sustainable development also contributed to the modern understanding of sovereignty. In particular, as said in the Principle 21 of the Stockholm Declaration: “[s]tates have, in accordance with the UN Charter and principles of international law the sovereign right to exploit their own resources pursuant to their own environmental policies”<sup>101</sup>. In Rio de Janeiro this principle was updated by mentioning both environmental and developmental policies.<sup>102</sup> At the same time some important issues at the juncture of sovereignty and sustainability still remain unsolved.

The first of them is the definition and delineation of “own” resources of the state. The paradox is that natural resources, some ecosystems and biomes, as well as their elements (air, wildlife, water *etc.*) do not recognize countries’ political borders and thus raise the issue of joint management.<sup>103</sup> Although the international community recognizes permanent

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<sup>100</sup> S.R. Chowdhury “Permanent Sovereignty and Its Impact on Stabilization Clauses, Standards of Compensation and Patterns of Development Co-Operation” in K. Hossain and S.R. Chowdhury (eds.) *Permanent Sovereignty over Natural Resources in International Law* (New York: St. Martin’s Press, 1984) at 24 – 29.

<sup>101</sup> *Declaration of the United Nations Conference on the Human Environment* (Stockholm, 1972).

<sup>102</sup> Principle 2 of Rio Declaration.

<sup>103</sup> Kiss & Shelton, *supra* note 77 at 259.

sovereignty of the state over its natural resources, it does not mean that the state has an exclusive right to determine the destiny of entire ecosystems.

Ecosystems remain the common heritage of mankind. The very idea of the common heritage appeared in late 1960s, almost simultaneously with the concept of “permanent sovereignty over natural resources” as an alternative to the concepts of *res nullius* and *res communis* in natural resource management. *Res nullius* means that a certain good had no owner before it was captured. *Res nullius* corresponds with the “rule of the first capture” applicable to petroleum extraction in common-law jurisdictions. The concept of *res communis* alternatively views common quasi-ownership of the resource that allows using “fruits” of common possession, but prohibits obliterating, destroying or damaging *res communis*. The idea of ‘heritage’ emphasizes the importance of long-term management of used commons, especially if the participants of the sophisticated common use relationship use *res communis* in different ways. For example, if there are three industries in the region: fisheries, coastal forests wood production and offshore oil mining, all three industries are utilizing the same, or the neighboring, areas of the seashore and coastal waters as *res communis*.

Although there is no uniform legal definition of ecosystem or ecosystem management, some complex environmental “systems” deserved definition and regulatory policy.<sup>104</sup> Tansley in 1935 was the first who defined the ecosystem. He portrayed it as a biotic community and its associated physical environment in a specific place.<sup>105</sup> The ecosystem *de*

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<sup>104</sup> S.T.A. Pickett & M.L. Cadenasso, “The Ecosystem as a Multidimensional Concept: Meaning, Model, and Metaphor” (2002) 5 Ecosystems 1 at 2.

<sup>105</sup> A.G. Tansley, “The Use and Abuse of Vegetational Concepts and Terms” (1935) 16 Ecology 284.

*facto* is a commonly used natural system, which is at the same time a heritage for future generations. Although environmental studies dispute the nature of ecosystem and methods of delineation of boundaries of an ecosystem, the legal criteria of common ecosystem use is the interdependence of the used elements, if it is proven by preliminary environmental impact assessment or by environmental science. The essential contribution of the ecosystem-based approach is the recognition of the roles of various environmental stakeholders.<sup>106</sup> This approach is closely linked to such principles of sustainable development as cooperation, precaution, inter- and intragenerational equity and the right to development.<sup>107</sup>

The second disputed aspect of the sovereignty over natural resources is the right of the state to change its policy on resources management. As it is discussed later, the mining and petroleum contracts are regulations *sui generis*. So, in terms of unlimited sovereignty over its natural resources and using the argument of national economic interests, many mineral economies developed legal instruments for unilateral change of mining and petroleum agreements. As a response to it there were developed “balancing” legal instruments designed to protect foreign investor’s rights, property and law-abiding activity within territories of those states.<sup>108</sup> Schrijver classified all major concerns on sovereignty which

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<sup>106</sup> R. Costanza & C. Folke “Valuing Ecosystem Services with Efficiency, Fairness, and Sustainability as Goals” in G.C. Daily, (ed.) *Nature’s Services: Societal Dependence on Natural Ecosystems* (Washington, DC: Island Press, 1997) at 49–68.

<sup>107</sup> See generally: Robert B. Keiter, “Ecosystems and the Law: Toward an Integrated Approach”, (1998) 8 (2) *Ecological Applications* 332; D.S. Slocombe, “Environmental Planning, Ecosystem Science, and Ecosystem Approaches for Integrating Environment and Development” (1993) 17 *Environmental Management* 289; see also: Nico Schrijver, *Sovereignty over Natural Resources* (Cambridge, Cambridge University Press, 1997) at 120-138.

<sup>108</sup> Paul Peters, Nico J. Schrijver & Paul J.I.M. de Waart “Permanent Sovereignty, Foreign Investment and State Practice” in Kamal Hossain & Subrata R. Chowdhury (eds.) *Permanent Sovereignty over Natural*

contributed to development of this concept by means of international public law. Among those concerns there were: (1) need for optimum utilization of scarce resources, (2) fluctuations of raw material market prices (3) investment instability in mineral economies, (4) issues of state succession and nationalization of the mining industries, (5) ideological competition, (6) the demand for economic independence as an immanent pre-requisite for democracy in developing countries, (7) further formulation of human rights and means for their protection.<sup>109</sup>

Hossain elaborates the idea that sovereignty over natural resources is a principle of international law that provides developing countries with a legal and political basis to act in response for previous inequitable use of the natural resources by colonists. The response is supposed to be performed in the following ways: (1) alter the terms of previously concluded mineral and oil agreements, (2) nationalize mineral rights and equipment of the foreign investor.<sup>110</sup> Such understanding of sovereignty over natural resources was harshly criticized. For instance, Lord McNair wrote that sovereignty is a vague and disputable term, which belongs to political science and not to law.<sup>111</sup> Nevertheless, sovereignty is recognized by the vast majority of legal scholars as the right of the country to establish within its territory mandatory rules and regulations for activities of their citizens,

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*Resources in International Law* (New York: St. Martin's Press, 1984); Karol N. Gess, "Permanent Sovereignty over Natural Resources: An Analytical Review of the United Nations Declaration and Its Genesis" (1964) 13 (2) *Int. & Comp. L. Q.* 398 at 408; George Elian *The Principle of Sovereignty over Natural Resources* (Germantown, Maryland: Sijthoff & Noordhoff, 1979) *etc.*

<sup>109</sup> Schrijver, *supra* note 107 at 3 – 6.

<sup>110</sup> Kamal Hossain & Subrata R. Chowdhury (eds.) *Permanent Sovereignty over Natural Resources in International Law* (New York: St. Martin's Press, 1984) at ix.

<sup>111</sup> A.D. McNair, *The Law of Treaties* (Oxford: Clarendon Press, 1961) at 757.



organizations, foreign investors and other legal entities.<sup>112</sup> Sovereignty over natural resources as a principle of international law ensures the right of the peoples of the states to use their national resources for their own benefit and for the good of their countries.<sup>113</sup> The *Trail Smelter* case<sup>114</sup> defined the most significant limitation to the principle of sovereignty, which requires preventing transboundary harm from the mining activities.

The next significant difficulty in sovereign resource management is the debate on the legal nature of a particular resource. Petroleum is a fugacious substance and the common-law jurisdictions apply the rule of capture:

“There is no liability for capturing oil and gas that drains from another lands. The owner of a tract of land acquires title to the oil and gas that he produces from the wells drilled thereon though it may be proved that part of such oil and gas migrated from adjoining lands.”<sup>115</sup>

The problem is that civil law jurisdictions and some mixed ones treat their petroleum resources according to the *ad coelum* doctrine, which in the context of sovereignty over natural resources means that the state has an exclusive power to impose policies regarding resource use to the core of the earth below the national territory.<sup>116</sup> In addition, this

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<sup>112</sup> See: Schrijver, *supra* note 107; Hossain & Chowdhury, *supra* note 110; Elian, *supra* note 108 *etc.*

<sup>113</sup> See generally: Hossain & Chowdhury, *supra* note 110.

<sup>114</sup> *Trail Smelter Arbitration* (United States v. Canada), 3 R. Int'l Arb. Awards 1911 (1938). Although this precedent is based on the smelting activities, its ratio is relevant to all industrial activities capable of causing environmental harm.

<sup>115</sup> John S. Lowe, *Oil and Gas Law in a Nutshell* (St. Paul, MN: West Publishing Company, 1983) at 10.

<sup>116</sup> *Ibid.*

argument on the sovereignty over natural resources is in fact the argument whether supreme power of the state is at the same time unlimited power.<sup>117</sup>

Understanding petroleum mining as an activity, which is relevant both to the scarce resource and to the land it belongs to, aligns the concept of sovereignty with such issues as (1) the “problem of commons”<sup>118</sup> in the context of the interests of multiple users of the ecosystem and (2) the specific role of the state in public-private partnerships, such as PAs.<sup>119</sup>

## **2.5. Foreign Investment, Oil and Mineral Industries and Sustainability**

Foreign investment is known as a capital flow from one state to another with the purpose of mutually beneficial cooperation. There are two main types of investment: (1) portfolio investment and (2) direct investment. Portfolio investment means that a non-resident company or entrepreneur buys a share in a resident corporation. Foreign direct investment (hereinafter FDI) is a purchase of mineral rights, oil rights or other values within the territory of the host country. FDI is usually based on a contract which defines amounts of money invested, values and interests obtained and procedures of repayment.

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<sup>117</sup> See e.g.: Christopher W. Morris, *An Essay on Modern State* (Cambridge: Cambridge University Press, 2002) at 178-179.

<sup>118</sup> See generally: G. Hardin, “The Tragedy of the Commons” (1968) 162 *Science* 1243; E. Ostrom, *Governing the Commons: the Evolution of Institutions for Collective Action*, (Cambridge: Cambridge Univ. Press, 1990) D. Feeny, F. Berkes, B. J. McKay & J. M. Acheson, “The Tragedy of the Commons Twenty-Two Years Later” (1990) 18 *Human Ecology* 1.

<sup>119</sup> Allyson Warhurst, “Tri-Sector Partnerships for Social Investment: Business Drivers” (Working Paper 4; London: Natural Resources Cluster of the Business Partners for Development, CARE International UK, 2000); N. Yakovleva & T. Alabaster “Tri-Sector Partnership for Community Development in Mining: a Case Study of the SAPI Foundation and Target Fund in the Republic of Sakha (Yakutia)” (2003) 29 *Resources Policy* 83 at 83-98.

The most successful definition of FDI was proposed by the OECD:

“Foreign Direct Investment reflects the objective of a resident entity in one economy of obtaining a lasting interest in an entity resident other than the investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence of the management of the enterprise.”<sup>120</sup>

The main distinctions between direct and portfolio investments are related to the duration and the degree of control. Besides, in case of FDI the investor acquires such significant objects as equipment, buildings and real estate. In addition, a foreign direct investor's activities have an impact on social, economic and in most cases environmental issues of the investment country or region.

Foreign investment in the mining and petroleum extracting industries mostly takes place as a direct investment. This choice is based on the assumption that more extensive control over oil producing activity is capable of reducing most investment risks.

There are a number of opinions on the risks in FDI in mining and petroleum sector. For example, Ripley in his book *Environmental Impacts of Mining* points out environmental risks (waste management, threatening of biodiversity, sedimentation and other types of pollution) and social risks, which are in his view indirect impacts (poverty and health risks). He also points out that some ecosystems are more sensitive to mining and the damage to environment is more significant when mining development occurs in these ecosystems. Some social systems are also more sensitive because of improper environmental and social legislation, vague procedures for imposing environmental liability and lack of national or local monitoring capacity. A summarized list of typical risks includes: (a) risk of cultural

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<sup>120</sup> OECD, *OECD Benchmark Definition of Foreign Direct Investment*, 3<sup>rd</sup> ed. (Paris: OECD, 1996) at 5.

loss for the local community, (b) risk of health impact because of living close to petroleum exploitation, (c) risk of soils degradation and depletion of biodiversity, (d) risks of pollution of air and water in the area and similar risks.<sup>121</sup> Beim and Zakariya point out, in addition to the above, three groups of socio-economic and socio-environmental risks.<sup>122</sup> Some risks are individual for each project (e.g. there is no risk of desertification impact from petroleum development in the circumpolar area) and some are typical, because they are concerned with alteration of life of local residents.<sup>123</sup>

Beim in the article *International Mining Projects: Risks and Rewards* notes that many NGOs upon analysis of the impact of mining (as well as petroleum) development activities in developing countries found out that these activities often outweigh the benefits from manufacturing and deter manufacturing companies from locating there.<sup>124</sup> Thus it is also possible to evaluate long run economic risks.

Michael Ross writes about “structural risks” of mineral or petroleum development. His classification of risks is based on sustainable development indicators. It contains: (1) poverty risk, (2) terrain risks, (3) peripheries risks, (4) prior regional identity risks and (5) risks concerned with non-democratic political institutions.<sup>125</sup>

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<sup>121</sup> E.A. Ripley *et al.*, *Environmental Impacts of Mining* (Florida: St. Lucie Press, 1996).

<sup>122</sup> David O. Beim, “International Mining Projects: Risks and Rewards” (1977-1978) 12 *Journal of International Law and Economics* 209; H.S. Zakariya, “Insurance Against the Political Risks of Petroleum Investment” (1986) 4 *Journal of Energy and Natural Resources Law* 217.

<sup>123</sup> See: Ripley *et al.*, *supra* note 121.

<sup>124</sup> See: Beim, *supra* note 122 at 211-213.

<sup>125</sup> Michael L. Ross, “Mineral Wealth and Equitable Development”, Background Report. for the World Development Report (2006), online at: The World Bank,

Political risks are strongly dependent on governmental actions. The danger of expropriation and events equivalent to expropriation give rise to local conflicts and domestic upheavals, sometimes even result in civil wars. Some unwanted consequences of unsustainable petroleum mining involve both political and commercial risks, for instance: strikes, sabotages to objects of industry or transportation.<sup>126</sup>

Weaver points out three types of direct environmental impacts of petroleum extraction: (1) air pollution from flaring, venting, combustion processes, dust dispersal, fugitive gas losses, and emissions of sulphur dioxide and other air contaminants; (2) hydrological impact on the ground water and surface waters, possible contamination with oil associated water produced from the wells together with the crude oil, drainage, leaks and oil spills; (3) soil erosion because of construction and petroleum producing activities. The consequences of these impacts are losses in wildlife and vegetation. As direct impacts on human environment, she names alteration of traditional land-use patterns, exposure of the local communities to new infections and other types of health-related effects, cultural heritage losses and many others. Besides, she mentions indirect social impacts, for instance oil and gas activities adversely impact the recreational value of certain territories and thus deprive people even in distant locations from having an opportunity to enjoy picturesque views in mangroves, boreal forests or mountains.<sup>127</sup>

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<[http://siteresources.worldbank.org/INTWDR2006/Resources/477383-1118673432908/Mineral\\_Wealth\\_and\\_Equitable\\_Development.pdf](http://siteresources.worldbank.org/INTWDR2006/Resources/477383-1118673432908/Mineral_Wealth_and_Equitable_Development.pdf)> at 8-13.

<sup>126</sup> See: Zakariya, *supra* note 122.

<sup>127</sup> Weaver, *supra* note 98 at 56.

Thus, all groups of risks are important for assessment of a petroleum agreement and the combination of the most probable dangers and obstacles will be unique for each development project. The commonly acknowledged positive impact of the foreign direct investment is the substantial capital flow from abroad without withdrawing this money from other national industries. Many contemporary states cannot afford any industrial development or environmental protection without foreign investment. At the same time, the adverse impact of the activities induced by foreign investment is unequivocal.

The legal framework for FDI consists of multiple national and international rules and principles of diverse form, origin and status. Among international sources of investment regulation an important role is played by international investment agreements as well as regional multilateral investment agreements. The goal of these legal instruments is to protect a foreign investment against nationalization and expropriation. In recent decades environmental and sustainability provisions were also included into multilateral investment treaties.<sup>128</sup> On the other hand, as Moltke observes, “the MIA perpetuated a polarization of the process that consistently separated investor rights from investor obligations.”<sup>129</sup> He also summarizes four principles of the “extent and nature of liberalization”<sup>130</sup>, which are (1) the right of establishment, (2) national treatment, (3) non-discrimination and (4) transparency.<sup>131</sup>

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<sup>128</sup> See: Konrad von Moltke “An International Investment Regime? – Issues of Sustainability”, online at: IISD, <[www.iisd.org/pdf/investment.pdf](http://www.iisd.org/pdf/investment.pdf)>.

<sup>129</sup> *Ibid.*, at iii.

<sup>130</sup> *Ibid.*, at 53.

<sup>131</sup> *Ibid.*; see also: Sylvia Ostry, *A New Regime for Foreign Direct Investment* (Washington, DC: Group of Thirty, 1997) at 11.

The right of establishment includes all the elements of the status of economic citizenship: the right to obtain and vend commodities and real property, the right to enter into contracts, the right to apply for permits and licenses, the right to produce, store, transport and export. The right of establishment can be subject to certain exceptions, for example, for purposes of national security or protection of domestic investors.

The national treatment principle implies that the host country treats enterprises operating on its territory, but controlled by the nationals of another country, no less favorably than domestic enterprises in comparable situations.<sup>132</sup> At the same time, the probability of similarity is very low in environmental issues.<sup>133</sup> Besides, there is a controversy between the duty of the state to protect the legal interests of its citizens and the principle of national treatment. Foreign investors such as IOC and other mining multilateral companies have advantage in the expertise and technology, so it is more reasonable to apply this principle as equal but differential treatment of foreign and domestic investors. Some developing countries are so much interested in foreign investment in their mining industries that they treat foreign investors preferentially, more favorably than domestic ones. The principle of non-discrimination means that the minimal environmental standards of practice should be the same for all investors. This principle meets the same obstacles as that of national treatment. The major difficulty with implementation of the transparency principle is delineating commercially valuable confidential information from the information that should be available to the public.

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<sup>132</sup> See: Moltke, *supra* note 125 at 58; see also: OECD, "Fair and Equitable Treatment Standard in International Investment Law", OECD Working Papers on International Investment (2004), online at: OECD, <<http://puck.sourceoecd.org/vl=15093134/cl=17/nw=1/rpsv/cgi-bin/wppdf?file=5lgsjhvj76d0.pdf>>.

<sup>133</sup> *Ibid.* at 51-52.

Among the factors that link sustainability and foreign direct investment, there is a very essential element, namely the dispute settlement principles and procedures. Dispute settlements between a host state and a foreign investor significantly differ from the international disputes between two states or between two private companies. Moltke affirms that the “investor-state dispute” was a kind of institutional innovation of the 20<sup>th</sup> century. Nowadays in most mineral and petroleum exporting countries, the NOC acts as an agent of the host government in a particular obligation or agreement with a foreign investor. Nevertheless, this change does not affect the possibility of a situation in which the state begins to defend the rights of its citizens at the expense of the company by unilateral change of the terms of the contract. The primary aim of sustainable dispute resolution is to minimize unilateral changes to foreign direct investment projects without a sufficient reason. It also implies that those procedures should be replaced by alternative dispute resolution with public involvement and multilateral alteration of the contract or project to make it more beneficial for stakeholders.

During the implementation of the project one of the most significant questions is who bears the responsibility for negative impacts, in particular for unexpected negative impacts of petroleum development. Another important question is the authority that can impose this responsibility. The examples are very few, but I would like to point out the narrative by Kerr and Cordonier-Segger where they describe the direct liability of multinational development companies for environmental damage and human rights violations caused by the activities of those corporations.<sup>134</sup> Another strategy is the political responsibility of the

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<sup>134</sup> See: M. Kerr & M.-C. Cordonier Segger, “Corporate Social Responsibility: International Strategies and Regimes” in M.C. Cordonier Segger & Justice C.G. Weeramantry (eds.) *Sustainable Justice: Reconciling Economic, Social and Environmental Law* (Leiden: Martinus Nijhoff, 2004) at 140.



government which includes both international investment reputation and the right of people not to obey the government that neglects their rights.<sup>135</sup>

Among the legal mechanisms that may contribute to sustainability in petroleum development, there are legal instruments of multiple levels, in particular: (1) international soft and hard law; (2) national laws of the country, primarily constitutions and mining codes; (3) codes of conduct of the IOCs and mineral and petroleum development guidelines for a particular project formed by collaborative work of stakeholders; (4) contractual means; (5) litigation.<sup>136</sup>

## **2.6. Multi-Stakeholders Approach to Responsible Direct Investment**

The theme of sustainable stakeholders is one of the central research interests for sustainable development scholars, at least during the last two decades. The reason for such interest was the value of this approach for many cornerstone topics such as: social issues in resources management, strategic management and long-term risk assessment.<sup>137</sup>

Scholarly approaches that consider interrelations of business, stakeholders and sustainability can be classified into (1) normative, (2) instrumental and (3) descriptive<sup>138</sup>.

From the normative point of view, for instance, Jennings and Zandbergen argued for the

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<sup>135</sup> See: Zakariya, *supra* note 122; see also: Gao, *supra* note 13.

<sup>136</sup> Weaver, *supra* note 98 at 60-66.

<sup>137</sup> S. Sharma & M. Starik "Stakeholders, the Environment and Society: multiple perspectives, emerging Consensus" in S. Sharma & M. Starik (eds.) *Stakeholders, the Environment and Society* (Bodmin, UK: MPG Books Ltd., 2004).

<sup>138</sup> *Ibid.*, at 7.

significance of societal needs in discussing corporate sustainability<sup>139</sup>; Starik and Rands argued for multilevel societal interests from the point of view of the industrial corporations<sup>140</sup>; Winn developed modeling methodology for assessment of stakeholders' impact on corporate environmental strategies<sup>141</sup>. From the instrumental viewpoint, Sharma and Vredenburg discussed the helpfulness of multi-stakeholder strategies for cooperation between industry and society in such tasks as collection of environmental information and application of technical innovations in order to achieve more sustainability<sup>142</sup>. Descriptive research by Bansal and Roth summarized case studies on implementation of corporate greening strategies<sup>143</sup>. Buyusse and Verbeke divided sustainable stakeholders into primary and non-primary<sup>144</sup>, which contributed to a broadening of the range of the stakeholders, and consequently, to the development of multilevel stakeholder strategies for sustainability.

Summarizing the assessment of the role of stakeholder-oriented strategies for the society, most academics pointed out two major perspectives. The civil society approach or a societal perspective emphasize increasing demand of various stakeholders or their groups to

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<sup>139</sup> See: P.D. Jennings & P.A. Zandbergen, "Ecologically Sustainable Organizations: An Institutional Approach" (1995) 20 *Academy of Management Review* 1015 at 1015-52.

<sup>140</sup> M. Starik & G.P. Rands, "Weaving and Integrated Web: Multilevel and Multisystem Perspective of Ecologically Sustainable Organizations" (1995) 20(4) *Academy of Management Review* 908 at 908-935.

<sup>141</sup> M.I. Winn "Corporate Leadership and Policies for the Natural Environment" in D. Collins & M. Starik (eds.) *Research in Corporate Social Performance and Policy – Sustaining Natural Environment: Empirical Studies on the Interface Between Nature and Organizations* (Greenwich, CT: JAI Press, 1995) at 127-162.

<sup>142</sup> See: S. Sharma & H. Vredenburg, "Proactive Corporate Environmental Strategy and the Development of Competitively Valuable Organizational Capabilities" (1998) 19 *Strategic Management Journal* 729.

<sup>143</sup> P. Bansal & K. Roth "Why Companies Go Green?: A Model of Ecological Responsiveness" (2000) 43(4) *Academy of Management Journal* 717 at 717-737.

<sup>144</sup> See: K. Buyusse & A. Verbeke, "Proactive Environmental Strategies: A Stakeholder Management Perspective" (2003) 24 *Strategic Management Journal* 453.

influence corporations in decision making processes regarding environmental and social objectives. The corporate view discusses the need and ability of industry to involve a diversity of stakeholders into formation of corporate strategy in order to prevent unsustainable activities.<sup>145</sup>

There is no unanimous definition of the stakeholder from the viewpoint of sustainable development. There is a variety of definitions and the lists of stakeholders differs from each other depending on the industry, the region, and the problem discussed by a particular researcher. The criteria for identifying persons or their groups as sustainability stakeholders include: activity, intensity, longevity and capability.<sup>146</sup> The most important criterion is the particular interest of the societal group in achieving or preserving environmental, economic or social objectives.

Various stakeholders can be classified into larger groups according to the following criteria: (1) direct and indirect involvement; (2) human (individuals and their groups) and non-human (primarily states, authorities and organizations)<sup>147</sup>; (3) whether a stakeholder is affecting or affected, or both; (4) the role in decision-making processes, *etc.*<sup>148</sup> Some scholars unite stockholders of the company and sustainability stakeholders in order to

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<sup>145</sup> S. Sharma & M. Starik, *supra* note 137 at 1.

<sup>146</sup> See generally: J.A. Clair, J. Millman & I.I. Mitroff, "Clash or Cooperation? Understanding Environmental Organizations and Their Relationship to Business" in D. Collins & M. Starik (eds.) *Research in Corporate Social Performance and Policy – Sustaining Natural Environment: Empirical Studies on the Interface Between Nature and Organizations* (Greenwich, CT: JAI Press, 1995) at 163-194; see also: S. Sharma & M. Starik, *supra* note 137 at 15-16.

<sup>147</sup> Non-human beings such as animals or environment in general are not considered in this thesis as stakeholders.

<sup>148</sup> See: Costanza & Folke, *supra* note 106.

consider them all as corporate stakeholders.<sup>149</sup> Stockholders are not directly involved into sustainability issues, so they will not be discussed further in this thesis.

For the purposes of current research, taking into account the levels and organizational diversity of sustainability stakeholders, we can classify them as follows: (1) oil-exporting state or host government, (2) oil-importing state, (3) national oil company, (4) international oil company, (5) local residents of the oil-producing area, (6) women who are residents of the impacted area, (7) other citizens of the oil exporting country, (8) citizens of the oil importing country, (9) local business corporations of the oil-exporting country, (10) local authorities of the oil-producing area *etc.*<sup>150</sup> This list contains both human stakeholders, such as residents and non-human stakeholders (states, authorities, corporations, organizations). For the purposes of further research it is necessary to analyze the degree of involvement of these stakeholders in the problem discussed in this thesis.

Host governments rarely take part in PAs as a party. In most cases the host government possesses the controlling share in the NOC and acts as a stakeholder in both meanings of this word. The state is a classical stakeholder who is interested in the potential benefit from a particular PA and activities on implementation of this PA. Besides, in relations with an IOC, a state is interested in taxes and revenues. In relations with local residents, a state has the duty to protect its citizens, as well as it has the power to impose and enforce the

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<sup>149</sup> R.E. Freeman, *Strategic Management: A Stakeholder Approach* (Boston, MA: Pitman, 1984); Buyse & Verbeke, *supra* note 144.

<sup>150</sup> Amy B. Rosenfeld, Debra L. Gordon & Marianne Guerin-McManus "Approaches to Minimizing the Environmental and Social Impacts of Oil Development in the Tropics" in Zhiguo Gao (ed.) *Environmental Regulation of Oil and Gas* (London / Hague / Boston: Kluwer Law International, 1998) at 286-287 and 315-318.

decisions of its authorities in order to protect rights of its citizens. So the host government is a stakeholder that has multiple stakes in the discussed relationship.

An oil-importing state is much less involved in relations under a certain PA. Nevertheless, this stakeholder is interested in stable delivery of petroleum, lower prices for oil and gas, protection of its citizens' rights abroad. Citizens of oil importing states have similar stakes, except for the protection of the investor's rights. Besides, they act as classical stakeholders if they possess a share in IOC, participating in a particular PA.

A national oil company is the corporation that represents the host government in a PA, and thus a host government is a party to a PA, no matter whether it is acknowledged in text of the contract or not. The NOC's interests correspond with those of the state party, but the company has no duties concerning the citizens.

An international oil company is interested in economic stability, due implementation of the PA by the other party or parties and in protection of their investment rights. Each IOC is a direct stakeholder in economic objectives, and an indirect stakeholder in environmental issues. The question of IOC's being a direct or indirect stakeholder from the societal perspective is under debate.<sup>151</sup>

Local residents are impacted in all three dimensions considered by the doctrine of sustainable development. There is no debate that people are the most direct sustainability stakeholders to any industrial activity. At the same time, there is no unanimity among

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<sup>151</sup> Nazli Choucri, "Corporate Strategies Towards Sustainability" in Winfried Lang (ed.) *Sustainable Development and International Law* (London / Dordrecht / Boston: Graham & Trotman / Martinus Nijhoff, 1995) at 192-197.

sustainability researchers, what scope should be the best in considering people as stakeholders: individuals, subgroups, communities, entire civil society or its sectors.<sup>152</sup>

The citizens of the host country are no doubt impacted by the capital flow from the FDI and the revenues and taxes that the host state obtains from natural resources extraction and export. From the environmental perspective other citizens (living outside the extractive area) are not necessarily affected by natural resources development.<sup>153</sup> However, the adverse impacts of resource development on them can occur because of downstream activities and that cannot be prevented or mitigated by upstream PA.

Local ethnic minority communities have similar environmental stakes to those of other local residents. Besides, they have societal, primarily cultural, values that are very often affected by industrial activities performed nearby. The second reason for classifying communities as a separate stakeholder is that the environmental and economic sustainability stakes of the local communities are often stronger than those of individuals, both in number and in degree.

Sustainable stakes of local business corporations and local authorities vary significantly from country to country.

The issue, whether non-governmental organizations and international governmental organizations can be considered as stakeholders, is under debate. NGOs (as well as IGOs) issue research papers and non-mandatory guidelines on sustainability and stakeholder

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<sup>152</sup> See generally: S. Sharma & M. Starik, *supra* note 137.

<sup>153</sup> See: Puvimanasinghe, *supra* note 4 at 3-5.

involvement policies, may be involved in environmental monitoring and may give assistance to other stakeholders in defending their interests. At the same time, they neither suffer losses nor gain benefits from petroleum development in a certain area. Thus they can participate, for instance in preliminary assessment or regular environmental audit.

The role of stakeholder involvement in the formation and implementation of strategies for sustainability consists of two elements. First, initial recognition, communication and co-operation of direct stakeholders are essential elements of a tri-sector or a multi-sector partnership.<sup>154</sup> Second, better involvement and consideration of the interests of indirect stakeholders contribute to sustainability on the regional and even global level.<sup>155</sup>

Among the achievements of stakeholder involvement in the development of the strategies for sustainability, there are the principles of socially responsible investment. This investment strategy is described as combining such goals as private benefit and social good.

In brief, these principles include: (1) incorporation of environmental and social issues into investment analysis and decision-making processes, (2) promoting and protecting shareholder rights in regulations and in practice, (3) appropriate information disclosure for public and between stakeholders; (4) alignment of investment mandates, performance indicators and monitoring procedures; (5) promotion of collaboration of stakeholders, (6) informing a broader range of stakeholders about the “best practices” and the impact of implementation of these principles.<sup>156</sup>

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<sup>154</sup> Warhurst, *supra* note 119.

<sup>155</sup> *Ibid.*; see also: Rosenfeld, Gordon & Guerin-McManus, *supra* note 150.

<sup>156</sup> See generally: UNPRI, *supra* note 96.

The main challenge associated with socially responsible investment principles is concerned with their implementation and compliance. Taking into account the legal mechanisms of bringing sustainability,<sup>157</sup> further research in this thesis is focused on contractual means of implementation of the principles of socially responsible development.

## ***2.7. Terms and Principles of Sustainable Petroleum Agreement***

In contemporary oil and gas studies as well as in the legal framework for FDI the development of principles or guidelines for a sustainable PA is still in progress.<sup>158</sup> The growing body of international treaties constituting the international law of sustainable development<sup>159</sup> also broadens the basis for integration of the mining policies and socio-environmental regulations. The logical connection between the investment instrument, in a particular petroleum contract, and sustainable development is sophisticated. There are at least three dimensions to be acknowledged to portray the linkages between investments and sustainability: social, environmental and economic consequences of the capital flow to the extraction area.<sup>160</sup> Any petroleum or mineral agreement is a direct investment instrument and necessarily this instrument has all the advantages and disadvantages that are typical for national investment policy of the host country.

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<sup>157</sup> As legal mechanisms for bringing sustainability into petroleum sector this study considers: (1) strategic socio-environmental impact assessment, (2) environmental monitoring, (3) dispute resolution *etc.*

<sup>158</sup> Gao, *supra* note 13; Lorenzo Cotula "Regulatory Takings, Stabilization Clauses and Sustainable Development" // Paper prepared for the OECD Global Forum on International Investment VII, Paris, 27-28 March 2008, online: OECD, <<http://www.oecd.org/dataoecd/45/8/40311122.pdf>>.

<sup>159</sup> International law of sustainable development includes: 1972 UN Conference on the Human Environment in Stockholm and the 1992 UN Conference on Environment and Development in Rio, 2002 Johannesburg Declaration on Sustainable Development and Plan of Implementation *etc.*

<sup>160</sup> Puvimanasinghe, *supra* note 4 at 3-9.



The key functions of the regulatory framework of FDI are: (1) to protect the foreign investor from undue host state interference and (2) to protect the rights and legal interests of the citizens of the oil-exporting country. For a long time legal means for the protection of foreign investment were considered to be an obstacle for sustainable development. For example, the requirement to pay compensation prevented host states, primarily low-income developing countries, from adopting new rules and regulations in order to raise social and environmental standards, if this negatively affected the economic equilibrium or commercial viability of the investment project.<sup>161</sup> Therefore, the idea of reconciling investors', host countries' and other sustainability stakeholders' interests gained sufficient popularity within the academic community in order to maximize the contribution of FDI to the pursuit of sustainability goals.

In late 1980s - early 1990s the quest for sustainability in PAs was pioneered by such researchers as Auty,<sup>162</sup> Boulos,<sup>163</sup> Gao<sup>164</sup> and Higgins<sup>165</sup>. It was a hard task to override the dominant view of that time that environmental or social targets are not among the priorities

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<sup>161</sup> Cotula, *supra* note 158 at 3.

<sup>162</sup> Auty, *supra* note 10; Auty, R.M. & Mikesell, R.F. *Sustainable Development in Mineral Economies* (Oxford: Clarendon Press, 1998).

<sup>163</sup> A. Boulos, "Mutuality of Interests between Company and Government: Myth or Fact?" in Section of Energy and Natural Resources Law of IBA (ed.) *Energy Law'90: Changing Energy Markets: The Legal Consequences* (London: Graham & Trotman, 1990) at 12-13.

<sup>164</sup> Gao, *supra* note 37; Zhiguo Gao, "Environmental Regulation of Oil and Gas in Twentieth Century and Beyond: An Introduction and Overview" in Zhiguo Gao (ed.) *Environmental Regulation of Oil and Gas* (London / Hague / Boston: Kluwer Law International, 1998).

<sup>165</sup> Rosalyn Higgins, "Natural Resources in Case Law of the International Court" in A.E. Boyle & D. Freestone (eds.) *International Law and Sustainable Development* (New York: Oxford University Press, 1999) at 87-112.

of IOC, at least not in PAs.<sup>166</sup> The prolonged tradition of giving minimal or even no attention to socio-environmental concerns in PAs many times resulted in natural and social disasters, oil conflicts and vast environmental damages.<sup>167</sup>

According to the principle of permanent sovereignty over natural resources host governments have the exclusive right to regulate mining activities within their jurisdictions. At the same time international law sets limitations for unilateral changes in contractual instruments. These limitations are broadly described in the doctrine of regulatory taking.<sup>168</sup> Nevertheless, the concept of permanent sovereignty over natural resources was many times used in argument for unilateral change of PAs.

The concept of stabilization clauses, alternatively, elaborates contractual means that protect IOCs from undue regulatory takings. The common idea of these two theories is that the interests of parties to a PA are competing or even contradictory to some extent. IOCs are interested in the political and financial stability of the oil-rich country, in predictability of changes in the regulation of the petroleum extracting activities and most of all in profitable return of the money invested and in profits.<sup>169</sup> Unlike the IOC, the host government cannot act only on market motivation<sup>170</sup>; nevertheless, one of the priorities of the host government is to increase investment flow into its petroleum extracting industry. At the same time the

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<sup>166</sup> Mikesell, *supra* note 2 at 54.

<sup>167</sup> Gao, *supra* note 37 at 327.

<sup>168</sup> Cotula, *supra* note 158 at 3.

<sup>169</sup> See generally: Keeton & Schwarzenberger, *supra* note 4; Puvimanasinghe, *supra* note 4.

<sup>170</sup> Mikesell, *supra* note 2, Mikesell, *supra* note 5; Johnston, *supra* note 5; Waelde, *supra* note 11 *etc.*

government has numerous duties to its citizens. Among the duties related to oil investment there are: the duty of the government to protect rights and legal interests of its citizens, to comply with international environmental and other obligations, prevent armed conflicts within its territory and avoid confrontations with neighboring countries. That is an incomplete list of the host governments' duties and concerns related to the petroleum investment.<sup>171</sup>

The approach of ecosystem use gives a broader view on the issues of interests of parties and non-parties to a PA. For instance, according to Keiter, any industrial activity impacts several natural resources.<sup>172</sup> Thus, petroleum development should not be considered as management of one particular resource, but as an activity that involves a number of ecosystem co-users.

The idea about mutuality of interests of the IOC and the host government was originally introduced by A. Boulos in 1988. As a basis for mutuality of interests of the parties to a PA he pointed out such goals as (1) wealth creation from petroleum extracting and (2) economic and political stability.<sup>173</sup> Approximately at the same time Waelde analyzed the applicability of stabilization clauses to risk management by contractual means and concluded that cooperative risk management reflects the common interests of both parties to a PA, such as cost-benefit effectiveness. Besides, Waelde emphasized that many other risks in petroleum industry are hardly manageable by contractual means, for example,

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<sup>171</sup> Barberis, *supra* note 6 at 64-68; see also: Mikdashi, *supra* note 6 at 19 and 33.

<sup>172</sup> Keiter, *supra* note 47 at 332.

<sup>173</sup> Boulos, *supra* note 163 at 14-18.

market volatility of crude oil prices, geological risk (area's being unproductive), risks of technical and natural disasters and many others.<sup>174</sup> Gao developed the criteria for appraisal of PAs from the point of view of sustainable development.<sup>175</sup> Higgins summarized several international cases on petroleum concessions. Her article proves that such terms as the area, duration of the contract, the price of the production and many others are essential for the sustainable implementation of the contract.<sup>176</sup> Nowadays this tendency is continued by many research institutions and individual scholars.

The concept of sustainable stakeholders aligns social issues in resources management, strategic management, long-term risk assessment, corporate responsibility, and other resource management issues both from social and corporate perspectives.<sup>177</sup> In addition, proponents of the sustainability stakeholders approach argue for attention to the basic needs of the residents of the petroleum extraction area and well balanced regulation of ecosystem use.<sup>178</sup>

Contract is a legal and economic instrument which is necessary to start oil and gas exploration and exploitation in a particular oil basin, or to drill several additional wells in the area which is already exploited. Thus, the aspects which are important either for a sustainable FDI or for *non-stricto sensu* sustainable mining will also be significant for the

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<sup>174</sup> Waelde, *supra* note 34 at 8.

<sup>175</sup> Gao, *supra* note 13 at 14-19; see also: Gao, *supra* note 37.

<sup>176</sup> Higgins, *supra* note 165 at 87-112.

<sup>177</sup> Sharma &. Starik, *supra* note 137 at 16-17.

<sup>178</sup> Keiter, *supra* note 47 at 332-334; see also: Grimble & Chan, *supra* note 47 at 113-124.

petroleum agreement. At the same time, contract implementation can be different from original project and contract terms, for example, if the operator breaches or imperfectly performs its obligations. Thus, good intentions of the parties to a PA to contribute to sustainable development should be supported by effective sanctions for the breach of contract by either party.

In the hierarchy of petroleum regulations the petroleum agreement is the lowest element.<sup>179</sup> International public norms and national constitutional provisions on petroleum are at the top of the system of regulations. The next element is national legislation and regulations for the industry. In federal states the picture will not be complete without legislation and regulations of federation units on aspects of petroleum development, if any, and on ecosystem management. Even if there is no concept of the ecosystem in a particular national legislation, there are necessarily provisions on forests, lands, waters and other ecosystem elements management. So, a particular PA encounters a sort of legal framework which is supposed to provide legal means and remedies for the protection of environment and related human rights. Evidently if the contract contradicts public law there would be no need to dispute its termination or alteration. The contract which contradicts public norms is invalid either entirely or in the part which contradicts public law, if there is a possibility to implement this contract without that part.

A life cycle of the contract has the following stages: (1) negotiation, (2) formation, (3) implementation, (4) renegotiation or adaptation if necessary and (5) termination.<sup>180</sup>

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<sup>179</sup> Smith *et al.*, *supra* note 22 at 36-43; see also: Smith & Dzienkowski, *supra* note 14 at 25-35.

<sup>180</sup> See generally for renegotiation and adaptation of contract: *e.g.* C. Boyle & R. Percy, (eds.) *Contracts: Cases and Commentaries*, 7<sup>th</sup> ed. (Toronto: Carswell, 2004) at 661-702; Roger Brownsword, *Contract Law:*

Sustainable negotiation in the multi-stakeholder view means public involvement, primarily awareness and participation in the decision making process, preliminary assessment of risks and probable impacts of the project on the life of the residents of the extraction area and on the environment. While aiming at obtaining non-biased assessment of impacts both companies and host governments are interested in involvement of NGOs. Sustainable formation implies that the contract contains terms which contribute to socially beneficial development of the region, to preservation of ecosystems and provides, as much as possible, a transparent system of revenue payments.

The most important element of the life cycle of a PA is its implementation. Normally the term of the PA is over 25 years and it is possible to assess its impact on several generations of local residents. The basic schedule for any industrial performance is the following: preliminary assessment, current monitoring, long-term forecast of probable impact with its permanent reiteration. The companies that do not meet the expectations of other sustainability shareholders are “punished” quickly and severely.<sup>181</sup> The “best practices” in social and environmental performance are beneficial for the multinational company because of reducing long-term costs, mitigating social tensions in the contract area and nearby, protecting from unilateral actions of the government. Emerging markets, such as developing countries and former Socialist states are likely to provide the most harsh

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*Themes for the 21<sup>st</sup> Century*, 2<sup>nd</sup> ed. (Oxford: Oxford University Press, 2006); for petroleum contracts specifically see: Abba Kolo & Thomas W. Waelde “Renegotiation and Contract Adaptation in the International Investment Projects: Applicable Legal Principles & Industry practices” (2004) 1(1) Transnational Dispute Management, online: Transnational Dispute Management online: Transnational Dispute Management online at <[http://www.transnational-dispute-management.com/samples/freearticles/tv1-1-article\\_49.htm](http://www.transnational-dispute-management.com/samples/freearticles/tv1-1-article_49.htm)>.

<sup>181</sup> See generally: Mikesell, *supra* note 2; Ross, *supra* note 45; see also: Machmud, *supra* note 20.

environment for the oil business<sup>182</sup>, and even create the most challenges to an IOC's commitment to sustainability.

The stage of implementation of a contract is divided by most scholars into three major parts: (1) exploration, (2) oil extraction and production and (3) capping of the wells and land reclamation.

The exploration can be again split into pure exploration which mainly consists of geological research, seismic surveys, airborne surveys or even satellite imaging maps. This stage has minimal impact on the environment, at least much smaller compared to the further contract implementation. Of course surface small detonations and shot-hole operations are still used in geological exploration, but progress in technology allows minimizing those activities as well as "dry" wells. For instance, 3D seismic technology increased the probability of successful exploratory drilling from 20 to 50 %.<sup>183</sup> Nevertheless, even in the most developed countries, there is only one way to determine whether the petroleum substance is in subsoil, that is drilling an exploratory or test well. This activity impacts directly the area of approximately 5,000 to 20,000 m<sup>2</sup> and the supporting camp occupies at least 1,000 m<sup>2</sup>. The fluids and liquids received from the test are transferred to laboratories where they undergo detailed chemical appraisal which is designed to determine whether the well is productive, the size of the petroleum reservoir and the number of other wells necessary for its development.<sup>184</sup>

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<sup>182</sup> See: Waelde, *supra* note 11 at 13-19.

<sup>183</sup> D. Bohi, *Changing Productivity in US Petroleum Exploration and Development* (Resources for the Future Discussion paper, 1998) at 45-50.

<sup>184</sup> Weaver, *supra* note 98 at 54.

The most important issue from the view of sustainable development during the exploratory stage is related not to successful drilling; on the contrary, it is focused on the dry and/or unproductive wells. The duties of the operator to perform certain land reclamation should begin much earlier than the contract expires. Sustainable relinquishment of the area implies that the surface, including all vegetation, wildlife, soils and waters on it, is suitable for its previous use. Since the relinquished area is not an entire ecosystem, so the impact caused to the relinquished area should be measured both within the acreage relinquished and in the context of the entire ecosystem.

During the development stage among the most important issues that are regulated by a PA there are: the number of producing wells, the technical solution for their drilling, oil leak prevention, construction waste utilization *etc.*<sup>185</sup> The problem is that sometimes the operator aims at producing crude oil and is not interested in all other substances that are extracted from the wells, primarily associated “dry” natural gas and water. Unfortunately, it is a very common practice that unneeded methane is flared.<sup>186</sup> There are many ways to prove that these practices are absolutely unsustainable. For example, the principle of intergenerational equity requires preserving non-renewable natural resources that cannot be utilized by present generation; to magnify the importance of this issue we should take into account forecasts on scarcity of petroleum resources and observations of human dependency on oil and gas.<sup>187</sup>

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<sup>185</sup> *Ibid.*

<sup>186</sup> *Ibid.*, at 54-55; see also: Baseline Methodologies for Clean Development Mechanism Projects: A Guidebook (UNEP, November 2005) at 15-18.

<sup>187</sup> See generally: Onuosa, *supra* note 8; Goudina, *supra* note 44.



The second principle of sustainable PA implementation is unbiased monitoring, regular reassessment of social and environmental impacts, counter-checking of corporate monitoring of the contract performance and state authorities' activities in that field. The reporting and information terms, which are concerned with availability of environmental information and results of the impact assessments for the public, are also a part of this principle of sustainable PA.

The third important aspect of sustainable PA implementation concerns reiteration of the terms of the contract on the basis of cautions issued during the impact assessments. It consists of renegotiation clauses, definition of the "trigger events" and their interdependence with impacts assessments, dispute resolution procedures, and public involvement in decision-making. Besides, it includes legal mechanisms that protect all stakeholders that are involved in oil-producing activities.

The last stage of the contract implementation is abandonment of the wells, decommissioning of equipment and restoration of the site. While plugging the wells, the operator is responsible for leak prevention and for minimizing the environmental harm caused by oil production. The impacted surface acreage aggregates as follows<sup>188</sup>:

Seismic exploration	1.6 acres per mile
Well site (flat terrain)	2.7 acres per mile
Well site (slope 40%)	5.8 acres per mile
Access road (flat terrain)	2.3 acres per mile
Access road (slope 40%)	8.7 acres per mile
Power line	2.4 acres per mile
Pipeline (internal)	2.4 acres per mile
Compressor station and other equipments	5 acres per plant

<sup>188</sup> G. Marsh, "The Environmental Realities of Petroleum Exploration", in R. Steinmetz (ed.) *The Business of Petroleum Exploration* (American Association of Petroleum Geologists, 1993) at 340; see also: Weaver, *supra* note 98 at 55.

and plants	
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**Table 1. Impacted surface acreage.**

This calculation does not take into account that the impact on the parcel of surface land or offshore area in fact means impact to the entire ecosystem and many other types of impact. Thus, there is a need for a list of provisions that contribute to sustainability.

There is a variety of lists of sustainability-friendly terms for petroleum contracts. For example, Boulos and Taverne provided a broad analysis of almost each term of a PA from the point of view of mutuality of interests of the parties and reasons for their co-operation.<sup>189</sup> Gao suggests the following environmental provisions: (1) environmental impact assessment, (2) environmental management plan, (3) environmental report, (4) environmental liability assurance programs, (5) rehabilitation/ abandonment obligations, (6) environmental audit, (7) investment in renewable substitute and establishment of sustainability funds.<sup>190</sup> From the viewpoint of the multiple stakeholders approach this list yet can be enlarged by several more terms.

**Area.** The term “area” usually describes the parcel of land, without mentioning that this parcel of land belongs to a particular ecosystem. Because of that PAs look like entirely private agreements. In fact, exploration and exploitation area is interdependent with renewable and non-renewable natural resources upon the land surface and in subsoil. Those resources might be exploited by other co-users: farmers, fishers, agricultural and/ or industrial businesses, Indigenous communities *etc.* PAs implementation will significantly

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<sup>189</sup> Boulos, *supra* note 163 at 22-29; Bernard Taverne, *Co-operative Agreements in the Extractive Petroleum Industry* (London/ Hague/ Boston: Kluwer Law International, 1996) at 20-36, 158-169.

<sup>190</sup> Gao, *supra* note 37 at 333-334.

impact on the lives and wealth of those people. So, the area should be characterized in a PA as a part of a particular ecosystem in order to induce public-private partnership in managing impact issues.

**Term.** PAs are designed to be expensive investment projects that start to pay back in 10 to 15 years. During that large period of time the number and character of ecosystem co-users can change. For instance, the population of the area can enlarge significantly, and the needs of the next generation of residents will increase proportionally. Sustainable development implies taking into account the needs of future generations.

**Direct and indirect compensation for non-parties.** In addition to investment into research on a substitute for a non-renewable resource (which is an ultimately rare term of a PA) there is an option of indirect compensation by promoting basic needs of the society, such as investment in building hospitals, schools, providing training and financing education for local residents and many others. Although direct compensation for the negative impacts of oil mining to the co-users of the ecosystem is nowadays a luxury available only in highly developed countries, this provision deserves its place in the list of criteria for sustainable PA.

**“Trigger events” for contract renegotiation and investor-state dispute settlement.** Clarity of these terms can change the IOCs’ attitude towards renegotiation in general, convert unfair expropriation into mutually beneficial contract flexibility. Impact assessments nowadays are performed by the host state authorities, so the host government

two times serves as a judge in its own case.<sup>191</sup> Further research considers the possibility of involvement of NGOs into these procedures.

To sum up the principles and terms for a sustainable PA, I would like to note that in a particular contract these terms and principles can be arranged in a different way. The aim of further research should be to summarize historic development of PSAs from less to more sustainable versions by finding in provisions, which are described above or similar to them.

## **2.8. Conclusion**

The sustainable PA is a noble goal, which was never implemented or even formed yet, and there is no guarantee that it is possible in the nearest future. Nevertheless, there is a significant development towards sustainability in PAs, which is portrayed in more detail in later chapters.

Summarizing the research *infra*, the first conclusion is that a PA is a public-private relation, which involves both parties and non-parties to the contract. Non-parties are considered as the groups of persons impacted by the oil producing activity. The complete list of stakeholders varies from country to country; in all cases it includes the national government, IOCs and local residents. This list also can be extended with several more entries, such as local ethnic and religious minority communities, local businesses, municipal and federal units' authorities and some others. The interests of stakeholders can be the same, similar and partly or entirely contradictory.

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<sup>191</sup> See generally: Moltke, *supra* note 128.

While seeking sustainability in PAs, the focus should be transferred from a specific non-renewable resource to the entire ecosystem. Sustainable use of a non-renewable natural resource implies investment into scientific research in order to invent a substitute.<sup>192</sup> This issue is very important, but totally irrelevant to PAs.<sup>193</sup> Alternatively, a consideration of the ecosystem as a common asset used in different ways by several co-users is helpful in determining stakeholders and in drafting sustainable strategies for their co-operation.

The concept of sustainable development can be used only as a whole system of principles for drafting and legal evaluation of the PA in order to prevent observation of one principle of sustainable development at the expense of other. The choice of the most relevant principle or principles for assessment of a particular term can be made on the basis of the multi-stakeholders approach.

I have chosen the multi-stakeholders approach as a theoretical framework for my research because it is the most suitable theory for solving the problem I am working at. Many authors who wrote about renegotiation and disapproved absolute sanctity of contract took into account only the interests of the parties to an agreement. The paradigm of the tri-sector partnership in mineral and petroleum industries largely takes into account the interests of local residents of the extraction area. In addition, I propose in this section a “checklist” of the terms of a sustainable PA on the basis of the *Principles of Socially Responsible*

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<sup>192</sup> See: Onuosa, *supra* note 8 at 439; see also: Gao, *supra* note 13.

<sup>193</sup> I hereby acknowledge that IOCs frequently take part in establishing of various environmental funds and in other pro-sustainable initiatives. All these activities are not included into PAs (except in China). They are either based on the national legislation or performed by the IOCs voluntarily.

*Investment*.<sup>194</sup> The most important idea is that the multi-stakeholders approach allows arguing for the breach of non-parties rights as a “trigger event” for renegotiation and adaptation of the contract.<sup>195</sup>

Foreign investment contract provisions should support a balance between the legitimate interests of contractors in financial stability of their investment on the one hand, and socio-environmental needs of the host country and its citizens on the other. Unfortunately, often the priority is given to the investment stability and “contract sanctity” at the expense of sustainable development.

The role of the PA in regulation of oilfield operations can be described as small but significant. On one hand, the PA is the lower level of the regulatory framework; it is not able to override all pitfalls in public petroleum legislation of the host country and thus even an ideal *non-stricto* sustainable PA does not guarantee its sustainable implementation. On the other hand, contemporary contractual means and private incentives can be used to fill in legislation gaps and take into account specific features of the particular oil basin.

Contemporary legal theories within the environmental philosophy of sustainable development provide sufficient basis both for appraisal of the existing PAs and for preliminary assessment of the future oil and gas contracts. The prolonged mutual interest of the host country and foreign investor stands for co-operation in formation of “sustainability friendly” PAs.

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<sup>194</sup> See generally: UNPRI, *supra* note 96.

<sup>195</sup> Klaus Peter Berger, “Renegotiation and Adaptation of International investment Contract: the Role of Contract Drafters and Arbitrators” (2003) 36 Vand. J. Transnat’l L. 1347.

For the purposes of further research from the multi-stakeholder point of view, the terms of PA, namely PSA, will be classified as follows: (1) area, map and location terms, (2) time, money and oil terms, (3) impact assessment, eco-auditing and “pure” environmental terms, (4) stability and flexibility terms.

## **Chapter Three.**

### **Production Sharing Agreements in the Context of Sustainable Development.**

#### ***3.1. Introduction***

This chapter analyzes the role of PSAs in petroleum investment, describes past and contemporary solutions of multi-stakeholders issues and proposes some new solutions which are not included in existing PSAs, but, from the author's point of view, are helpful in making PSAs more sustainability friendly. First, this chapter describes the origin and definition of PSA and elaborates the reasons for use of this type of contract. Section 3.3 of this chapter summarizes the differences between PSA and other mineral and petroleum agreements. The next section is focused upon the scope of the contract, and points out which issues of PSA implementation can be solved by contractual means and which ones cannot. The third subsection of this chapter also analyzes the rights and duties of the parties to the PSA and detects the possibility of non-parties' rights being considered and protected by adding duties to either party or delegating additional rights from the host government to the IOC and/ or NOC. Section 3.5 examines such issues as long-term contractual relationship and contract sanctity, payments issues and evaluates the relevance and proximity of revenue and tax issues to the rights of non-parties. Section 3.6 discusses whether area-use, subsoil-use or ecosystem-use is a most appropriate description of the PSA implementation; justifies the ecosystem-use approach, elaborates its bonuses for all participants of oil extraction relations. The following section merges the ideas of the previous two sections and describes the term (or sometimes the group of terms) on environmental and social impact assessment.



The key hypothesis of section 3.7 is that the environmental impact assessment performs the following functions: (1) prevents the parties from renegotiation or provides predictable procedures therefore; (2) defends non-parties from the host government's negligence in fiduciary duties to them; (3) contributes to sustainability. Additionally, this subsection lines up environmental impact assessment with further monitoring of contract implementation. The last subsection summarizes the issues investigated in this chapter and solutions for making PSAs more sustainable.

### ***3.2. Origin and Definition.***

During the years of recognition of permanent sovereignty over natural resources there were invented several types of petroleum contracts as an alternative to the classic concessions. All these inventions were designed, first, to reflect modern requirements of sovereignty and second, to provide a new scheme of control over resource use. The antagonism toward multinational corporations' activities, primarily in the mining and petroleum industries, together with the UN principle of permanent sovereignty in some countries initially resulted in total prohibition of foreign investment in extractive industries. But total prohibition of the foreign investment in turn lead to significant withdrawal of capital flows from natural resource development in those countries. The shortage of investment was followed by a decrease in quality of extractive practices.

The UN General Assembly discussed the possibility of establishing international agencies that would provide financial and technical assistance to oil exporting countries that desire to develop their petroleum resources with minimal foreign investment. Industrial states

opposed these proposals, mostly because of the minimization of foreign investment.<sup>196</sup> Developing countries were also against those proposals, but on the basis of North-South controversy arguments.

The need for oil in industrialized countries and the need for investment in developing countries induced the invention of several contractual instruments alternative to classic concession. A common feature of modern PAs is the possibility of the state party to withhold some control over the natural resource use. The sharing of production is not an exclusive feature of PSA. In non-mining industries the concept of sharing of production was practiced for several centuries, mostly in sharecropping contracts in agriculture.<sup>197</sup> It is necessary to mention that sharing of production as a form of calculation of benefits was originally applied in late 1950s in Bolivia in a “classic concession”.<sup>198</sup> There are only two types of calculation of the benefits in PAs: profit-sharing and production-sharing. Profit sharing is rarely used nowadays, because it does not guarantee that the oil extracted will be sold at the market price. Thus, all PSAs are based on production sharing benefit calculations, but not all PAs with production sharing benefit calculations are PSAs.

The goal of this section is to define a PSA and discuss its basic characteristics. It is unanimously recognized by academics that PSA was first introduced in Indonesia in late 1960s. At the same time, Indonesian lawmakers and oil and gas practitioners did not give

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<sup>196</sup> See: Fariborz Ghadar, *The Evolution of OPEC Strategy* (Lexington, MA: Lexington Books, 1977) at 18-19.

<sup>197</sup> Kirsten Bindemann, “Production-Sharing Agreements: An Economic Analysis”. WPM 25 (1999), online at: Oxford Institute for Energy Studies, <[www.oxfordenergy.org/pdfs/WPM25.pdf](http://www.oxfordenergy.org/pdfs/WPM25.pdf)> at 31.

<sup>198</sup> Irina Paliashvili, “Ukraine Enacts Production-Sharing Legislation for Natural Resources- PSA Proliferation”, online at: CEPMLP Internet Journal, 2000 <<http://www.dundee.ac.uk/cepmlp/journal/>>.

any legal definition to this type of PA. It was developed later in scholarly writings. The main goal of this subsection is to answer the question: “What is a PSA?” For example, Gao defines PSA as an

“agreement under which a foreign company, serving as a contractor to the host country/ its national company, recovers its costs each year from production and is further entitled to receive a certain share of the remaining production as payment in kind for the exploration risks assumed and the development service performed if there is a commercial discovery.”<sup>199</sup>

In scholarly literature on oil and gas matters there is a unanimous opinion that the most significant feature of PSA is the host state’s ownership of hydrocarbons *in situ* and state ownership of mining rights.<sup>200</sup>

Bindemann provides the shortest definition of the PSA as a contract under which “the state as the owner of mineral resources engages a foreign oil company as a contractor to provide technical and financial services for exploration and development operations.”<sup>201</sup>

Daniel Johnston summarized key characteristics of the PSA concept on the basis of the first contract of that type, signed by IIAPCO and Pertamina in 1966: (1) state does not transfer any rights in hydrocarbons to the contractor; (2) NOC maintains management control, (3) IOC is responsible before NOC for its part of contract implementation, (4) profit-sharing was replaced by production-sharing, (5) the contractor provides financing and technology necessary for mining hydrocarbons, (6) the contract set the maximum annual amount of

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<sup>199</sup> Gao, *supra* note 13 at 72.

<sup>200</sup> Omorogbe, *supra* note 51 at 273, 279.

<sup>201</sup> Bindemann, *supra* note 197 at 1.

recovery costs and share in production; (7) the title to the equipment purchased and imported to the host country by the contractor is transferred to the NOC.<sup>202</sup>

The procedures of formation of PSAs vary from country to country. In some countries each PSA is approved by a legislative body through the same procedure as statutes are approved; in others alternatively, a PSA is a mere contract between two oil companies. The content of the contract is also different. The concept of PSA which reflects all modern variations of this PA is expressed in Taverne's book *Co-operative Agreements in the Extractive Petroleum Industry*:

“A production sharing agreement is a contractual relationship between a state, a state authority, or an authorized state oil enterprise on the one part and one or more (mostly foreign) oil companies (collectively constituting the contractor) on the other under terms of which the contractor is authorized to conduct petroleum operations within the area specifically described in the agreement and in accordance with it.”<sup>203</sup>

At the same time Taverne acknowledges the “dual character” of the PSA as a co-operative agreement and a petroleum right.<sup>204</sup>

So the reasons for bringing new petroleum investment instruments into the oil and gas business, as well as for their further updating were: (1) anti-colonial movements and extension of the understanding of sovereignty, (2) liberalization of trade and rapid upgrade of technologies both in the mining sector and in communications, (3) political changes in the former Soviet “block”, (4) concerns about the common future of the humanity and on sustainable development.

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<sup>202</sup> Johnston, *supra* note 5 at 40.

<sup>203</sup> Taverne, *supra* note 189 at 158.

<sup>204</sup> *Ibid.*

The reasons described above predetermined the features of the new PA. The concept of permanent sovereignty over natural resources resulted in an increase of the state's managerial control in resource use industries. Liberalization of markets induced scholarly and practical research and design of new contractual obligations in order to fit the demands of national law of the oil-exporting countries. Political changes in the world opened new economic niches in the oil and gas sector of the countries with economies in transition.<sup>205</sup> The quest for sustainability at the level of PAs was started very recently, although it already brought changes such as the popularity of competitive bidding, establishment of sustainability funds, *etc.*

Summarizing the definitions from a number of studies on PSA, these agreements can be characterized as (1) a contractual relationship *sui generis*, (2) a contractual form of a petroleum regulation, (3) a co-operative agreement, (4) a petroleum fiscal system, (5) an investment instrument. The most notable feature of PSAs is that these agreements create a regulatory and fiscal framework for a particular oil extractive project and thus combine administrative and contractual terms. Consequently, it is possible to align permanent sovereignty and other political influences of the state, quasi-administrative provisions of PSA and contract sanctity with consideration of this petroleum contract, mainly with monetary and work obligations of the parties.

The chapter continues with the delimitation of public and private provisions in a PSA from the point of view of the multi-stakeholder theory.

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<sup>205</sup> See generally: Waelde, *supra* note 11 at 3 and 15.

### **3.3. Distinctions between PSAs and Other Types of PAs**

The sharing of production has become a necessary element of all modern PAs<sup>206</sup>, so it is necessary to discuss: (1) how PSAs are different from other PAs and (2) how important those differences are in the context of sustainability and protection of multiple stakeholders. Although PSAs occur as petroleum contracts and mineral contracts, the research in this section is limited by petroleum agreements only.<sup>207</sup> Specifically the analysis includes “classical” petroleum concessions, petroleum joint ventures, service contracts (buy-back contracts) and hybrids.

Classical petroleum concessions were in practice since the early years of the 20<sup>th</sup> century and were popular on colonized or dependent territories. The term “classical concession” is most often associated with Middle Eastern concessions, but it is absolutely fair to say that early concessions were very similar over all colonized territories. As Smith and Dzienkowski wrote, the archetypal classical concession was signed in 1901 in Persia between the Shah of Persia and oil industry magnate D’Arcy. The specific features of that agreement were: signature bonus of 100, 000 dollars, 60 years of duration, the oil rights were granted for an enormously large area of 500, 000 square miles, no mandatory development programs, no drilling or spending commitments were agreed upon. A large number of similar concession contracts in the region were signed during the first and second decades of the 20<sup>th</sup> century.<sup>208</sup> No doubt, those first petroleum concessions were pure private contracts and were not impacted by international law. The only exception was

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<sup>206</sup> Johnston, *supra* note 5.

<sup>207</sup> See section 1.5. of this thesis at 20-23 *infra*.

<sup>208</sup> Smith & Dzienkowski, *supra* note 14 at 17-23.

the impact of *Lex Mercatoria*, which *inter alia* provided for the sanctity of these private agreements, similarly to all other agreements formed on its basis. Both the concept of investment contract and international law relevant to mineral investment have evolved since then.

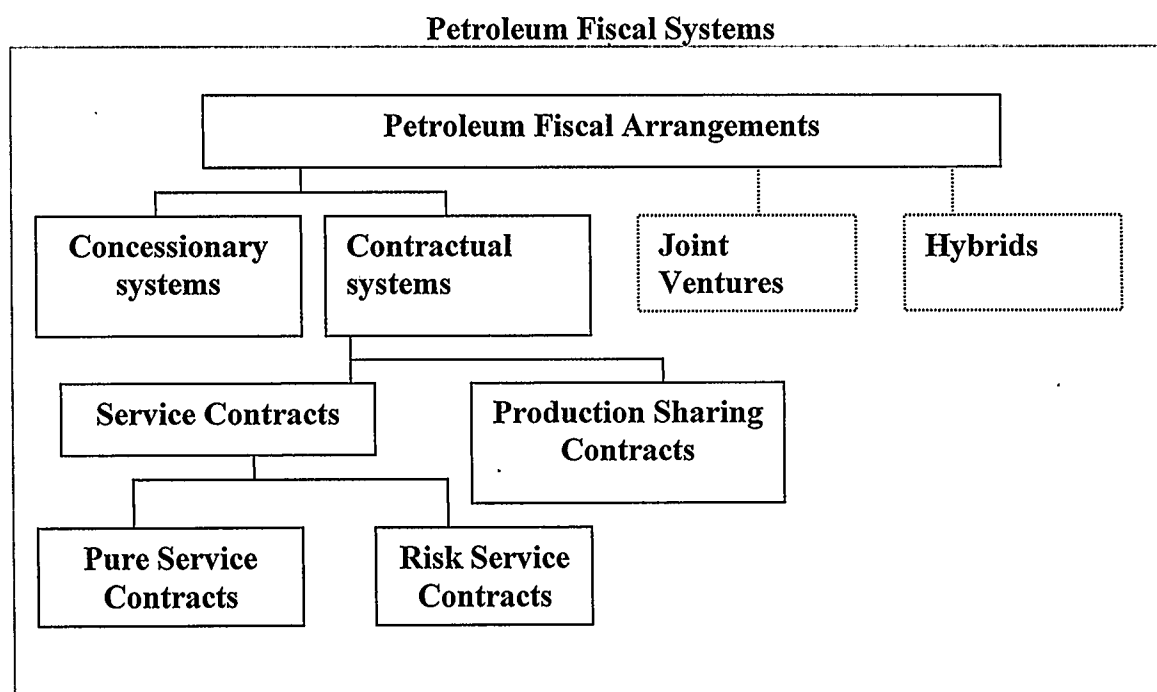
Now, the investment contract's parties are (1) the investor (one or more multinational corporations) and (2) the state party (which may be represented by government, resources ministry or another authority, NOC or a combination of these). Both mineral and petroleum contracts imply operations with the subsoil and extracting minerals and substances from there.<sup>209</sup> Most oil exporting countries created their state owned petroleum companies. The NOC in each jurisdiction for a long time was the only company which had the exclusive right to represent the state party in petroleum agreements. In the last decade some countries have chosen either privatization of oil companies or creating several NOCs to promote competition among them.

The other aspect of evolution of the petroleum contract was based on the development of international law on environmental protection, protection of human rights and various international instruments for the protection of sovereignty of states on former colonized territories. The aspects regulated by modern petroleum contracts include (1) tax and fiscal regime, (2) state participation and control over petroleum operations and (3) additional regulations on oil and gas exploration and extraction. So, modern petroleum agreements in

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<sup>209</sup> The division of the mineral investment contracts into mineral and petroleum is the stricter in common law literature, especially in the jurisdictions which recognize the rule of capture. If the legislation of the host state considers mining activity as doing something to the subsoil, the distinction between model mineral and petroleum agreements of this particular jurisdiction will be slightly noticeable. The types of mineral contract (concession, production sharing agreement, risk service, work contracts *etc.*) and types of PAs (concession, production sharing agreement, risk service, farmout *etc.*) evidently overlap.

addition to their contractual functions also work as a source of regulation and fiscal systems. It is necessary to note that attempts to create a uniform petroleum contract were not successful and each jurisdiction introduces its own contract. There is a number of classifications of contemporary petroleum contracts. One of the most famous of them is the table by Daniel Johnston in which he portrays distinctions between various petroleum fiscal systems.<sup>210</sup>



**Table 2: Petroleum Fiscal Systems**

Johnston affirms that concessional fiscal systems allow private ownership of mineral rights and in contractual systems the state reserves these rights for the state party. The major difference between the PSAs and service contracts is whether the fee is paid in money or in oil. Service contracts are also classified into pure service contracts which are based on a flat fee and the risk service contracts where the fee depends on the profit in the future.

<sup>210</sup> Johnston, *supra* note 5 at 25 [Emphasis added].



In a broader economic sense the distinctions between the most widespread fiscal petroleum systems can be summarized on the basis of risk sharing terms, as suggested by Bindemann.<sup>211</sup>

<b>Risk and Reward of Main Contract Types</b>		
<b>Contract</b>	<b>Foreign Contractor</b>	<b>Government</b>
Concession	all risk/all reward	reward is function of production and price
PSA	exploration risk/ share in reward	share in reward
Joint Venture	share in risk and reward	share in risk and reward
Pure Service	no risk	all risk

*Table 3: Risk and Reward of Main Contract Types*

Almost unanimously, oil and gas scholars distinguish four basic contract types; concessions, production-sharing agreements, service contracts, and joint ventures.<sup>212</sup> Gao also points out the hybrid, which is a mix of terms of two or more basic types.<sup>213</sup> Each of the basic contracts is suitable as an investment instrument and as a private regulation of the oil mining activities. The distinctions between the types of contracts are concerned with (1) the level of control granted to the foreign investor, (2) the compensation and recovery arrangements, and (3) the role of NOCs.<sup>214</sup>

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<sup>211</sup> Bindemann, *supra* note 197 at 11.

<sup>212</sup> See: Mikesell, *supra* note 5 at 26; see also: Johnston, *supra* note 5; Smith & Dzienkowski, *supra* note 14; Smith *et al.*, *supra* note 22; Taverne, *supra* note 189, Bindemann, *supra* note 197 *etc.*

<sup>213</sup> Gao, *supra* note 13 at 154 and 201-204.

<sup>214</sup> Bindemann, *supra* note 197 at 9.

Classical concession is famous for its four features: (1) huge areas were granted to the foreign investors with no relinquishment duties for unproductive acreage, (2) long terms without assignment of a work program, with no duty to produce, (3) total control of the investor (operator) over the production processes, (4) payments to the host governments were based on profit or production. The classical oil concessions were made on the basis of private mining and petroleum agreements of home countries, for example, in the Middle East first oil concessions were made similar to the oil and gas leases granted in the United States in the beginning of the 20<sup>th</sup> century.<sup>215</sup> The drafters of the classical concessions did not take into account that exploration and oil development would be performed under these agreements in a different legislative framework of the oil-rich country with no domestic restrictions. At the same time, most classical concessions were made on the territories of colonized or otherwise dependent states. Thus, for a long time classical concessions were enormously favorable for the investor. Most classic concessions were renegotiated in 1950s-1970s: “Although some of these agreements exist today in name, their modern counterparts are very different from the original texts.”<sup>216</sup>

Modern concessions were drafted first in Oman (1967) and Abu Dhabi (1974) on the basis of French administrative contract.<sup>217</sup> Among the new terms there were relinquishment procedures, work program, and bonus payments. Also the term was shortened and the royalty payments were increased.<sup>218</sup>

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<sup>215</sup> Smith & Dzienkowski, *supra* note 14 at 20.

<sup>216</sup> *Ibid.*, at 18.

<sup>217</sup> See: Smith & Dzienkowski, *supra* note 14 at 35-36; Smith *et al.*, *supra* note 22 at 281.

<sup>218</sup> Bindemann, *supra* note 197 at 10; see also: Smith & Dzienkowski, *supra* note 14 at 36.

In joint ventures the IOC and the host government, or one of its agencies or agents together participate in the oil mining operations and receive a specified part of production for their activity. Joint ventures can be established as equity partnerships or in contractual form.

Service contracts are very similar to PSAs: a state invites a foreign company to perform exploratory or oil development activity for a fee. In a pure exploratory contract the company bears no risk and receives a payment for its services regardless of the amount of the oil produced. In risk-service contracts the IOC receives compensation for its services only if a certain condition of the agreement has been fulfilled, *e.g.* the petroleum was found, commercial discovery was made *etc.* On comparing risk-service contracts with classical concessions it is possible to make a conclusion that favorability in terms of PA might have a pendulum effect, namely shifted favorability of the contract for the state party almost as much, as it was for the contractor in classical concession.

PSAs since they were first introduced in mid-1960s became very popular and now are implemented in more than 60 jurisdictions. PSAs are the most suitable PAs for the development of new oilfields, because they provide for more state participation and more state control over petroleum operations.

### ***3.4. Scope of the Contract. Rights and Obligations of the Parties***

The description of the scope of PSA depends on the understanding of the legal nature of this contract. If PSA is considered as an entirely private<sup>219</sup> agreement, then its scope is limited to the rights and duties of the parties to the contract. Some PSAs have “scope” articles, some address to the scope of the agreement in the preamble and in some the scope

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<sup>219</sup> Paliashvili, *supra* note 198.

is partly described in general provisions and partly in the rights and duties of the parties. Most of the “scope” articles provide a brief description of the IOC’s rights under the contract and/or describe the type of contract. For example, Ethiopian Model PSA’1994 in section 1.1 says:<sup>220</sup>

“This Agreement is a production sharing agreement and it shall cover Petroleum Operations in the Contract Area. The Contract Area is described and delineated in Appendix II hereto periodically adjusted in accordance with the provisions of this Agreement. During the term of this Agreement all Petroleum production resulting from the conduct of Petroleum Operations shall be divided between the Parties in accordance with the provisions of Sections VI through XIII hereof.”

The “scope” article in the Albanian Model PSA consists of ten paragraphs and performs the following functions: (1) defines the type of the contract, (2) lists exclusive rights of the contractor under the contract, (3) notes that the Albanian government does not grant the contractor any rights for petroleum *in situ*, (4) refers to the international standards of the oil industry.<sup>221</sup>

In many PSAs, both model and actual, “Scope” articles provide that the IOC’s implementation of the duties under the PSA, mostly of petroleum operations, is subject to the supervision of the host government.<sup>222</sup> The supervision terms support the hypothesis that PSA is a public-private partnership or contractual relationship *sui generis*.

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<sup>220</sup> Cited as in: Frank C. Alexander Jr., *Host Government Contract Handbook, (for the International Petroleum Industry)*, Vol. 1 (New York: Barrows Co. Inc., 1999) at 2; see also: Ethiopian Model Production Sharing Agreement Of 1994 (1994. Barrows, Basic Oil Laws & Concession Contracts, South & Central Africa, Supp. 121) at 27.

<sup>221</sup> *Ibid.*, at 27-28.

<sup>222</sup> See: Smith *et al*, *supra* note 22 at 334 and 340-341; Taverne, *supra* note 189 at 20-21; Alexander, *supra* note 220 at 28-30.

PSAs can be discussed as public-private partnerships<sup>223</sup>, because they usually contain such elements as rights and duties before the third parties to the contract. These provisions can be included into the text of the PSA or referred to in a separate agreement concluded under the PSA and in order to implement it. The reasons to include such provisions can be based on (1) the statutory law of the host country, (2) the professional ethics codes of the IOCs, (3) the best practices in this region, (4) a newly introduced practice in order to contribute to sustainability.

Rights and duties of the parties to a PSA can be arranged into a special paragraph of the agreement or provided throughout the whole text of the contract or even described in annexes and supplementary agreements to the principal contract. The terms of the PSA can be divided into five categories: (1) regulatory provisions, (2) financial provisions and disposition of produced petroleum, (3) fiscal terms, (4) co-operative aspects, (5) non-operational matters.<sup>224</sup> Some scholars split terms of the PSA into three main groups: (1) management clauses, (2) investment and work clauses and (3) parties' take clauses.<sup>225</sup>

Taverne summarized the rights of the parties the following way. The rights of the contractor are: (a) to explore the area for petroleum; (b) to drill wells and produce petroleum from discovered deposits, if they were claimed to be commercial discovery; (c) to receive recovery payments for exploration and construction costs and to receive a

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<sup>223</sup> Zia Oloumi, *New Aspects of International Petroleum Contracts and the New Private-Public Partnership for the 'Sustainable' Development*, Doctoral Dissertation (Original in French, excerpts are translated into English by Zia Oloumi).

<sup>224</sup> Taverne, *supra* note 189 at 164.

<sup>225</sup> Smith *et al.*, *supra* note 22 at 335-342.

specified share in any oil and/or gas produced; (d) to sell received petroleum at any market, except for agreed restrictions in supply for the domestic market of host country (e) to terminate the contract upon completion of the exploration work commitments, if no commercial discoveries were made.<sup>226</sup> The rights of the state party are: (a) to receive a portion of the oil and gas production (taxes and share in the produced petroleum), (b) to participate as a co-contractor (in production sharing joint operation agreements), (c) to approve annual work programs and budgets, as well as changes thereto, (d) approve / agree to the contractor's declaration of commercial discovery, (e) perform sole risk operations in regard to any discovery within the contract area, which was not declared commercial, (f) to take over operatorship with respect to individual fields, (g) to approve the contractor's assignment of the interest (except where this right is reserved by the government), (h) to terminate the contract in the event of material breach of provisions of agreement by the other party (except where this right is reserved by the government).<sup>227</sup>

There is a number of writings on the issue of balance of rights and duties of the parties to a PA. For instance, Taverne points out, that under the PSA the contractor has both rights and obligations and the state party has mainly rights.<sup>228</sup> The core of the problem is the common practice of participation of a NOC in investment relations. The government delegates its resource management rights to the NOC and does not authorize the NOC to perform its socio-environmental protection duties. The duties of the state party correspond to the rights of the contractor and are the following: (a) to provide the contractor with the information

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<sup>226</sup> Taverne, *supra* note 189 at 159.

<sup>227</sup> *Ibid.*, at 159-160.

<sup>228</sup> *Ibid.*

about the contract area and ensure access to the said area for the contractor's staff, (b) to consider the contractor's claims of commercial discovery in the agreed terms, (c) to approve or decline work programs and development plans and changes thereto in the agreed period of time, (d) to perform monitoring of contractor's operations and (in some PSAs) to alert the contractor about any breaches discovered during such monitoring *etc.*<sup>229</sup>

The duties of the contractor are: (a) to fulfill the exploratory work obligations in accordance with the agreement, host country's national legislation and any other applicable law, including international private law, national law of the IOC, national and international provisions on protection and preservation of the environment, (b) to provide acceptable financial guaranties and/or proof of competence and ability in regard of the exploratory stage of the contract, (c) to pay taxes *etc.*<sup>230</sup>

Summarizing the rights and duties of the private part of the PSA, I conclude that the relationship of the parties to a PSA consists of the following elements: (1) information exchange, (2) exploratory and developmental obligations, (3) petroleum sharing obligations, (4) taxation relationship. The state party has financial control and *de jure* control over the implementation of the PSA. The contractor party *de facto* performs exploration and drilling. Such a split requires a special provision on the responsibility before the third parties for negative environmental consequences or impacts and damages because of them. For the purposes of further analysis, the terms of PSAs will be divided into the following groups: (1) area terms in the context of sustainability; (2) time, money & production provisions, (3)

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<sup>229</sup> *Ibid.*; see also: Gao, *supra* note 13; Boulos, *supra* note 163.

<sup>230</sup> See: Taverne, *supra* note 189 at 166-167.

state monitoring and corporate social responsibility, including the duty to inform and the duty to report, (4) stabilization and adaptation clauses.

For a sustainability-friendly PSA, it is critically important to provide a clear picture of the balance between the rights and duties of the parties. The duties of the NOC and the state should be listed separately to prevent ambiguity in their interpretation.

### **3.5. Time, Oil and Money**

This section is focused on the time provisions of PSAs, as well as expenditures and bonuses. The aim of the section is to demonstrate what makes these terms sustainable or unsustainable. Besides, the issues such as inter- and intragenerational equity, alleviation of poverty and many other targets of sustainable development are closely related to time, oil and money provisions of PAs.<sup>231</sup>

The duration provisions include the following aspects: (1) initial term of the contract, (2) period of the exploratory stage, (3) time for claiming a commercial discovery, (4) time-based fiscal provisions, (5) time requirements for sharing information and reporting duties, (6) time provisions for renegotiation (if any) and (7) termination procedures. Oil and money relations are in the field of capital investment, cost recovery, profit and taxation. At the primary stage, the investment takes place as a direct capital flow or import of equipment, further accounting of expenditures and bonuses involve both money and production, namely petroleum.<sup>232</sup>

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<sup>231</sup> Gao, *supra* note 13 at 96-97.

<sup>232</sup> See generally: Daniel Johnston, *International Exploration Economics, Risk, and Contract Analysis* (Tulsa, Oklahoma: Penn Well Corp., 2003).



Expenditures of the company are divided into (1) costs that can be claimed as recovery costs and (2) sole risk operations. The bonuses can also be classified by two criteria: (1) who is the beneficiary party (contractor or state) and (2) exact quantity of oil as explicit in accounting records. Expenditures of the parties consist of both monetary and non-monetary assets, which are used in the oil development project. Bonuses in the oil sharing accounting are all calculated in oil.<sup>233</sup> In order to avoid listing terms with sustainability focused annotations, the terms will be discussed in the context of their interrelations. Generally, oil, time and money terms are interdependent from the viewpoint of sustainable development, because the parties to a PSA fix the percentage of oil sharing long before it actually takes place.

There are two approaches to the initial term of PSA. The most common practice is to sign a contract with the initial term of approximately two to three decades. Under such contracts the IOC has the right to terminate the contract before the expiration of the initial term, if no commercial discovery has been made. Another approach presumes a relatively short initial term, which coincides with the exploration stage. After the expiration of the initial term the contract can be extended or terminated. This second way does not align the termination of the contract with absence of a commercial discovery.<sup>234</sup>

The most common practice of a relatively long initial term is more sustainable for several reasons. First, it provides contractual regulation for environmental obligations of the IOC during the post-exploratory activities. Second, from the economic point of view, it allows

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<sup>233</sup> See, e.g.: Johnston, *supra* note 5; Gao, *supra* note 13, Smith & Dzienkowski, *supra* note 14; Machmud, *supra* note 20; Smith *et al.*, *supra* note 22; Taverne, *supra* note 189 *etc.*

<sup>234</sup> Alexander, *supra* note 220 at 34.

the company to extend the exploratory term, with a possibility to make a commercial discovery after the primarily agreed exploration period is over, and recover the costs. As examples of such an approach one can consider the Indonesian PSA since 1989, as well as the model PSAs of India, and Aruba, Guatemala and Trinidad and Tobago.<sup>235</sup> A short exploratory term is typical for Myanmar, Egypt, Ethiopia and Nepal.<sup>236</sup>

A short initial term is usually expressed in the contract in the following way:

2.1.1. This Agreement shall consist of an "Exploration Period" and a "Development and Production Period".

2.1.2. This Agreement shall remain in effect during the initial term of the Exploration Period and all extensions thereof and shall automatically terminate in its entirety at the end of the Exploration Period, except as to any Development Area.<sup>237</sup>

It is necessary to note that the practices of extending the initial term are as common as practices of extending the exploration period, but as mentioned before, they are far less sustainable, mostly because of the short term oil development strategy. Besides, while the PA is a valid contract, the IOC formally or actually retains a status of environmental stakeholder and should take into account interests of other stakeholders, even if there has been no commercial discovery.

Sometimes, the IOC makes a commercial discovery within the exploration or initial term but has not enough time for appraisal and approval procedures. Commercial discovery and development plan approval procedures normally take six to twelve months. In this situation

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<sup>235</sup> *Ibid.*, at 31.

<sup>236</sup> *Ibid.*, at 32.

<sup>237</sup> See: section 2.1 of Ethiopian Model Production Sharing Agreement, 1994; Barrows, Basic Oil Laws & Concession Contracts, South & Central Africa, Supp. 121; see also: Alexander, *supra* note 220 at 39.

some host governments extend the term and others do not. This issue is closely aligned with relinquishment and reclamation of the used parcels of land, which are scheduled at the end of exploratory activities.<sup>238</sup> On one hand, the wells are already drilled and the decision is of critical importance for the future of oil development in the area. On the other, the land might be used or planned to be used by other stakeholders, for instance local businesses. In this situation there is no uniformity between the sustainable development approach in general and the multi-stakeholders theory in particular. The better appraisal will be given to the substances from the test well, the more efficient will be exploitation of the reservoir. It allows preserving resources for the future generations. It also increases the chances of the IOC to make a commercial discovery and thus recover costs and induce economic activity in the extractive area. It is obvious that the extension of the exploratory term is more beneficial for future generations and for the present one. From the stakeholder point of view, on the other hand the decision may be different, especially if there are several co-users of the contract area or its surroundings. Most PSAs provide a compromise in this situation: the IOC has an extension of the exploratory term, but this extension is not applicable to the whole contract area and the IOC has to perform its obligations on relinquishment.<sup>239</sup>

IOC bears the costs for the exploratory activities and performs these activities at its sole risk. Thus, the company is aimed at beginning of the development stage sooner, which will allow recovering the costs. The host government is also strongly interested, for a number of fiscal, social and environmental reasons, in fast transformation of the exploratory area into

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<sup>238</sup> Alexander, *supra* note 220 at 37.

<sup>239</sup> Weaver, *supra* note 98 at 54.

a development area. At the same time the state party and other environmental stakeholders, for instance local residents, are also interested in minimizing the environmental impact of exploratory activities. In traditional petroleum concessions the IOC had almost sole control over the timing and shift from exploratory to developmental activities. In most modern petroleum contracts the state party insists on significant efforts of the IOC in discovering petroleum and performing of work commitments. In a PSA the host party agrees with IOC either on a minimal annual investment in monetary value, or on a minimal mandatory exploration, drilling, construction and other work activity. Indonesian (1977) and Peruvian (1971) model PSAs include both terms on minimal annual drilling and minimal annual investment spending.<sup>240</sup>

Some PSAs split the exploitation stage into (1) the development and (2) production periods.<sup>241</sup> This two-phased exploitation stage is more attractive for IOCs, because it is much better to have 20 years of production, then to have spent some of these 20 years developing the area. For the state, separate development and production periods are also beneficial for the purpose of solving some sustainability issues both on the local level (in the oil extraction area) and on the national level. At the development stage much effort should be dedicated to prevent local negative environmental and social impacts. Examples of such efforts include (1) employing local residents, (2) training them, (3) involving local businesses *etc.*<sup>242</sup> At the production stage the host government should focus on the issues of sustainable development and environmental protection on the national level, for instance

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<sup>240</sup> See: Mikesell, *supra* note 5 at 62-65 and 70-71.

<sup>241</sup> Alexander, *supra* note 220 at 34-36.

<sup>242</sup> See: Gao, *supra* note 13 at 202 and 217-218.

Major renegotiations of Peruvian PSAs took place in 1980-1985. The tax credits which were made available by the reforms of 1980-1981 to petroleum and mining companies which reinvested their income into the Peruvian industry were unilaterally cancelled in 1985 as per policy of President A. Garcia. Additionally, the IOCs were required to return tax credits, as if they never were in effect. These major changes in the fiscal system came with unilateral cancellation of all PSAs effective immediately and IOCs were given an opportunity to renegotiate their agreements as licenses within 90 days. Belco Petroleum refused to comply with the tax increase and refused to return tax credits. The renegotiation process with Belco was considered to have been discontinued at its initiative, the assets of Belco Petroleum in Peru were nationalized and the former operator's rights were transferred to Petromar, an affiliate company of Petroperu.<sup>333</sup> Occidental accepted the new fiscal terms, agreeing to renegotiate the contract which was signed in 1971, and already renegotiated once in 1980. Besides, according to the renegotiated terms, Occidental acquired obligation for extra exploratory investment and signed a risk-service contract for a 2.5 million acre block in the South of Peru. Kolo and Waelde express the doubt, reasonable in the circumstances, that this renegotiation can be considered a voluntary one.<sup>334</sup>

The effects of the renegotiation of 1985 were dramatic for the Peruvian oil industry and for sustainability stakeholders such as local residents and local businesses. Petroperu, the state enterprise involved in all petroleum activities, such as extraction, transportation, storage and refining, experienced significant difficulties with performing these functions because of the outflow of foreign investment in 1985-1991. Although some of the companies were

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<sup>333</sup> Kolo & Waelde, *supra* note 180.

<sup>334</sup> *Ibid.*

more cooperative than others, the loss of investment entailed the outflow of technical assistance and created a number of operations management problems. The negative assessment of the political risks of petroleum investment by numerous experts complicated the attraction of new contractors. In the early 1990s due to significant reforms in oil and gas legislation the inflow of foreign investment was rebuilt.

The sustainable development program for the mining (namely, hard-rock mining and petroleum) sector was issued in 1993; also in 1993, the Peruvian Environmental Code was enacted by the Supreme decree No. 016-93-EM.<sup>335</sup> In 1994 Petroperu introduced a Model License contract in accordance with Concessionary law 1993.<sup>336</sup> The sharing of production, sliding scale and some other fiscal terms are included in the new fiscal arrangements, and there is still an option for the foreign investor to choose between a risk-service or modern concession (license) contract.

#### **4.5. PSAs in Russia**

Russia has a long history of oil development, starting in the 1870s. In the 20<sup>th</sup> century there were three legal reforms aimed at creation of a legal basis for foreign investment in petroleum development. The first one took place in 1921-1928, and due to the flow of foreign capital, by 1928 the petroleum industry had restored itself to its pre-revolutionary level.<sup>337</sup> The second time foreign investment took place in Russia (Soviet Union) was in the

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<sup>335</sup> Anida Yupari "Decentralization and mining: Colombia and Peru" in E. Bastida, T. Waelde & J. Warden-Fernandez (eds.) *International and Comparative Mineral Law and Policy: Trends and Prospects* (Hague: Kluwer Law International, 2005) at 795.

<sup>336</sup> Johnston, *supra* note 232 at 317.

<sup>337</sup> Gary B. Conine, "Petroleum Licensing: Formulating An Approach for the New Russia" (1993) 15 Hous. J. Int'l. L. 317 at 325.

1970s-1980s. This time it was based on the Soviet Union's statutory regulations "On the Subsoil".<sup>338</sup> By 1991, the year of the Soviet Union's collapse, Russia was the largest world producer of crude oil and natural gas.<sup>339</sup> After the collapse of the Soviet Union, adoption of the Constitution of Russia in 1993 and adoption of the First part of the Russian Civil Code in 1994, the tendency of friendlier conditions for mineral and petroleum investment became evident, but it needed more detailed legal regulation.

The contemporary legislation on subsoil use, oil and mineral development is largely based on the normative approach<sup>340</sup> to the legislation and scarcely uses contracts as sources of law. The role of contract as a source of law was under a vigorous debate in the 1990s-2000s.<sup>341</sup> Nevertheless, President B. Yeltsin signed in 1993 the *Production-Sharing Agreements Edict No. 2285*, (in force since 1994) and in December 1995 *Russian Federal Statute on Production-Sharing Agreements* (hereinafter - PSA Law).<sup>342</sup> On the basis of these

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<sup>338</sup> Legislative Basics of Subsoil Use of USSR and Soviet Republics, adopted in 1975, in force since 1976, [Основы Законодательства СССР и союзных республик о недрах, 1975-1992] since 1992 replaced by the Law of Russian Federation "On subsoil" [Закон РФ «О недрах», от 21.02.1992 N 2395-1, ], see online at: Garant, < <http://www.garant.ru/law/10004313-000.htm>>; in some translations, e.g. in Barrows, *World Petroleum Arrangements, Russia & NIS*, 2002 this document is also referred to as the Law "On Natural Resources".

<sup>339</sup> See: Conine, *supra* note 337 at 320.

<sup>340</sup> This view of legislation was a tradition for a long time. It was the dominant legal theory in the Russian Empire until the Revolution in 1917. It was continued in Soviet legislation even despite the huge impact of Marxist theory, and post-Soviet legislation is based on the normative approach.

<sup>341</sup> See generally: Boris. I. Puginsky, *Theory and Practice of Contractual Regulation* (Moscow: Izdatel'stvo "Zertsalo-M", 2008) [Б.И. Пугинский "Теория и практика договорного регулирования", М. Изд-во "Зерцало-М", 2008.]; I.V. Beklenischtscheva, *Private Civil Contracts: Classic Concepts and Modern Tendencies* (Moscow: Izdatel'stvo "Statut", 2006) [И.В. Бекленищева, Гражданско-правовой договор: классическая традиция и современные тенденции, М. Изд-во "Статут" 2008].

<sup>342</sup> *Federal No. 225-FZ Law On Production Sharing Agreements, 1995 (as amended by Federal Law 19-FZ, 1999)*. (In English see: Barrows, *Basic Oil Laws & Concession Contracts, Russia & NIS*, Supp. 35, see also the review of updates of Russian PSA law up to 2002 in Barrows, *World Petroleum Arrangements, Russia & NIS*, 2002.); in Russian with all updates up to 2008 see: online at Garant, <<http://www.garant.ru/law/10005771-000.htm>>; [hereinafter PSA Law].

documents there were signed seven PSAs on petroleum development and two on oil mining and there were disputes only about only three of them.<sup>343</sup> The contract signed in 1992 between LUKOIL and ConocoPhillips is not included in the current analysis, because it is not a PSA, albeit it has these words in its title. This contract is a joint venture (on its basis the parties created the Joint Venture “Naryanmarneftegaz”).<sup>344</sup> The agreement is based on sharing of production instead of sharing of profits.<sup>345</sup> Among the projects based on PSAs there are (1) Sakhalin-I: Chaivo, Arkutun-Dagi and Odoptu fields, (2) Sakhalin-II: Piltun-Astokhskoye & Lunskeye Oil and Gas Fields, (3) Sakhalin-III: Kirinsky Prospecting Block, (4) Kharyaga Field, (5) Pechora shelf, (6) Yakut EPSA.<sup>346</sup> Four of these PSAs are regulating offshore oil development and two (Kharyaga and Yakut agreements) are for the onshore development. All Russian PSAs regulate the impact of oil exploration and development on the regions where Indigenous people live.

Taking into account the internal and external debts of Russia (and debts of the Soviet Union which were inherited by Russia after 1991), foreign investment in resource development was one of the shortest ways to cope with the budget crisis. Besides, the newly established democracy was very unstable and, until 1996, there was a significant danger of restoration

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<sup>343</sup> Some researchers write that there were only three PSAs and all resulted in disputes. Other four contracts should be considered as “hybrids”; see e.g. Sheila Slocum Hollis & John W. Berresford, “Structuring Legal Relationships in Oil and Gas Exploration and Development in “Frontier” Countries” in Thomas W. Waelde & George K. Ndi (eds.) *International Oil and Gas Investment Moving Eastward?* (London/ Dordrecht / Boston: Graham & Trotman / Martinus Nijhoff, 1994); Waelde, *supra* note 11.

<sup>344</sup> Igor Polinin, “Strategic partnership at a new turning point” 2 (2008) *Oil of Russia Intl Q.*, online at: *Oil of Russia International Quarterly* <<http://www.oilru.com/or/35/687/>>.

<sup>345</sup> *Ibid.*

<sup>346</sup> See generally: Barrows, Basic oil laws and concessions. *Russia & NIS. Supps.* 7, 9, 13, 17, 18, 20, 22, 35, 47, 56, 58, 61, 70.



of Communist rule and nationalization of most significant industries. Under these circumstances the need to attract foreign capital largely prevailed over the need to protect the environment.

Kursky and Konoplyanik emphasize that Russia never had and still does not have a distinction between mineral and petroleum law and, in their opinion, it is a distinction between Russia and the developed economies.<sup>347</sup> I agree that a unified approach to oil and mineral development is sometimes inconvenient for expansion of the petroleum industry. In addition, the distinctions between these two extractive industries are mostly expressed in licenses and contracts. At the same time, the unified approach to subsoil use brings to attention issues of environmental protection and other aspects of sustainability. Regulations of environmental impact assessment, site reclamation, social protection, *etc.*, can coincide for both extractive industries and permit them to exchange positive solutions.

Although the Russian Constitution of 1993 says that “Land and other natural resources can be owned by private entities, by the state or by municipalities”<sup>348</sup>, the subsoil is reserved for the state only. The Federal Statute “On the Subsoil” specifies that “the subsoils within the territory of the Russian Federation and on its continental shelf are owned by the Russian Federation. Management and mineral rights disposition issues are in the shared competence of federal authorities and those of federal units in accordance with the Constitution”.<sup>349</sup>

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<sup>347</sup> Alexander Kursky & Andrei Konoplyanik, “State Regulation and Mining Law Development in Contemporary Russia” in E. Bastida, T. Waelde & J. Warden-Fernandez (eds.) *International and Comparative Mineral Law and Policy: Trends and Prospects* (Hague: Kluwer Law International, 2005) at 969.

<sup>348</sup> *Constitution of Russian Federation*, 1993. See: *Ibid.*, Article 9(2).

<sup>349</sup> Federal Statute “On Subsoils” 1992 Articles 1 (2), 2.

Consequently, minerals and petroleum *in situ* are the property of the Russian Federation. Thus, PSAs have been during the post-Perestroika years, and still remain, a method of contractual management of petroleum resources. Baghat and Merklein wrote that in contemporary Russia, the standard petroleum contract is the PSA<sup>350</sup>, and this contradicts the opinion of a number of other experts, who are of the same opinion that the administrative method of licensing is the prevailing approach in the petroleum industry.<sup>351</sup> At the same time during the economic crisis, the PSA was a quick solution to the problem of attracting investment and even now can be effective for newly discovered oilfields.

The Russian government never issued a Model PSA, but for the purposes of the analysis all Russian PSAs can be split into two groups: contracts that were signed before the PSA Law 1995 and those signed after it. The first group includes three PSAs: Sakhalin-1, Sakhalin-2 and the Kharyaga field PSA.<sup>352</sup> As a sample for analysis of this group, I used the Sakhalin II contract.

The Contract area in these PSAs is defined as the development and production area covered by the contract, and described in annexes to it. No alignment of the area with the ecosystem was made in these contracts. The term of the first generation of PSAs was agreed to be 25 years. At the end of the contractual term, according, for instance, to the Sakhalin II contract,

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<sup>350</sup> Gawdat Bahgat, "Russia's Oil Potential: Prospects and Implications" (2004) 28(2) OPEC Rev. 133; Merklein, Helmut, "Who Needs Big Oil in Iraq: the Case for Going it Alone", (2004) 47(2) Middle East Economic Survey, online at <www.mees.com>.

<sup>351</sup> See: Konoplyanik, *supra* note 11; Waelde, *supra* note 11; Goudina, *supra* note 44; Stoleson, Mark A. "Investment at an Impasse: Russia's Production Sharing Agreement Law and the Continuing Barriers to Petroleum Investment in Russia" (1997) 7 Duke J. of Comp. & Int'l L. 671.

<sup>352</sup> Isabel Gorst, "Russia: Back in Fashion", (2003) 70 (4) Petroleum Economist 28 at 28-30.

the state party can appeal against automatic continuation of the license.<sup>353</sup> Generally, this wording of the contract term almost converts a PSA contract into a Middle Eastern concession, which was used more than a century ago.

Dr. Rutledge, an expert in petroleum economy, in his research on the Sakhalin I and Sakhalin II projects, emphasizes that the terms of those contracts were “heavily skewed in favor” of the foreign contractors,<sup>354</sup> and describes the sharing formula in Sakhalin-II PSA as a supportive example.

- 1) At first, ALL proceeds from oil and gas sales (apart from a small royalty) are treated as ‘cost oil’, until both the capital investment AND an IRR (internal rate of return) of 17.5% (a comfortable profit) for SEIC have been received.
- 2) Once costs and the 17.5% return have been received by SEIC, the Russian Party receives 10% of the hydrocarbons for the following two years.
- 3) After those two years, the Russian Party receives 50% of the hydrocarbons until SEIC has received a 24% IRR (a large rate of profits).
- 4) Only after that 24% IRR has been obtained does the mechanism shift to its final sharing of 70% of hydrocarbons to the Russian party.<sup>355</sup>

According to the opinion of foreign experts, and the review of terms of Sakhalin-II by the Audit Chamber of the Russian Federation (2001), the state party losses under that production sharing contract were about \$ 2.5 billion. The Sakhalin-II project during the phase II of the exploratory term was found out to be adverse for local residents, destructive for a number of species and their habitats and lacking proper risk management provisions. In addition, Sakhalin II contains a “unique” stabilization clause

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<sup>353</sup> See: D. Norlen, *supra* note 272.

<sup>354</sup> Ian Rutledge, *supra* note 272 at 15.

<sup>355</sup> *Ibid.*

The Russian Party shall compensate the Company for any damage caused by the former in connection with adverse changes in Russian laws, subordinate laws and other acts taken by Government bodies after December 31, 1993 (including changes in their interpretation or their application procedure by government bodies and by the courts in the Russian Federation). Compensation shall be adequate to avoid deterioration in the commercial position of the Company in comparison to the position it would have held had there not been unfavorable changes.”<sup>356</sup>

In other words, if the state party makes more onerous any of the requirements on safety, health and / or environmental protection, the state has to pay for it to the contractor. If evaluated from the point of view of sustainable development, such a stabilization clause means the “polluter is being paid”. Besides, complete implementation of Phase I and three-quarters of Phase II of the Sakhalin-II project created significant obstacles for Russia’s compliance with its international obligations under the Convention on Biological Diversity, and under the Ramsar Convention.

Similar problems occurred in the Kharyaga PSA project, which is presently producing approximately 20,000 bpd. The early 1990s generation of PSAs in Russia is characterized as “contracts signed under low oil prices and weak government”<sup>357</sup>. At the same time, international petroleum scholars and experts express controversial opinions on the oil policy changes in 2003-2008.

There are several factors which make Russian PSAs unique among other contracts of this type in use globally. First, Russian companies now have enough technical and financial potential to perform petroleum development. Thus the list of typical duties of the

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<sup>356</sup> Norlen, *supra* note 272.

<sup>357</sup> See: Jennifer I. Considine & William A. Kerr, *The Russian Oil Economy* (Cheltenham: Elgar Publishing Ltd., 2002) at 274-281; see also: Bahgat, *supra* note 350.

government should also include the state's obligation to protect the domestic petroleum industry. In addition, some Russian oil companies have become active players in the oil market and participate in PSAs abroad. So, Russia is the only state which is simultaneously a host country and a home country in the petroleum investment turnover.

Second, Russian PSAs are partially joint venture contracts or otherwise modified PSAs. All the contracts aimed at development of Sakhalin Island shores are very similar to the third generation of Indonesian production-sharing contracts. Sakhalin-II and Kharyaga have R-factor terms as in the Peruvian Model PSA (1978); all PSAs have some elements of a joint venture contract (as in Peru in 1971) and the Yakut EPSA also includes exploration and operation provisions as in Libya (EPSA III). So, the variety of key terms in Russian PSAs can be compared with a kaleidoscope.

Third, all Russian PSAs are implemented in areas traditionally inhabited by Indigenous peoples and also areas legislatively recognized as Indigenous homelands. There are more than 40 registered ethnic groups in Russia that are both worldwide and domestically recognized as Indigenous people. According to the census 2004 there were 280 thousand Indigenous people in more than 30 federal units. Notably there were no claims from Indigenous people against foreign investors like IOCs, but there were many warnings from NGOs that foreign investment in Russia is totally unfriendly for these ethnic minorities.

The fourth specific feature of the Russian petroleum industry in general and Russian PSAs in particular is that natural gas is valued almost as much as oil. European investors are very interested both in upstream and downstream investments in natural gas.

The contemporary concept of PSAs as instruments for petroleum rights has a more sufficient legal framework than the first PSAs had. The regulatory framework changed since the early 1990s and continues to evolve. For example, the Federal Law on PSA adopted in 1995, in force since 1996, was amended in 1999, 2000 and 2003.<sup>358</sup> Also numerous amendments were made to the Federal law “On the subsoil”<sup>359</sup> adopted in 1992, and additionally there were issued multiple administrative normative acts. These reforms largely contributed to the “sustainabilizing” of PSAs. First, the definition of a PSA was altered. In 1995 the PSA was defined as a “private contract”. In the latest edition of the PSA law the term “private” was removed. This is a pro-sustainability alteration, because it complies with the modern concept of PA as a public-private partnership.<sup>360</sup> Among other achievements favourable for sustainability stakeholders there are: (1) alignment of the area definition with the environment<sup>361</sup>, (2) compensation agreements with Indigenous people, (3) minimum 80% of nationals<sup>362</sup> and (4) 70 % of annual expenditures on technologies should be spent on purchases from Russian corporations and other business entities.<sup>363</sup>

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<sup>358</sup> Federal No. 225-FZ *Law On Production Sharing Agreements*, 1995 (as amended by *Federal Law 19-FZ*, 1999). (In English see: Barrows, *Basic Oil Laws & Concession Contracts, Russia & NIS*, Supp. 35).

<sup>359</sup> *The Law of Russian Federation “On Subsoil”, 1992 (with amendments)*. [Закон РСФСР «О недрах», от 21.02.1992 N 2395-1], see online at: Garant, < <http://www.garant.ru/law/10004313-000.htm>>.

<sup>360</sup> See: Gao, *supra* note 13; Warhurst, *supra* note 119; Oloumi, *supra* note 223; see also: Cotula, *supra* note 158.

<sup>361</sup> The area of the contract is defined as a parcel of subsoil, which belongs to particular oil field. Article 1 of PSA Law.

<sup>362</sup> *Ibid.*, Article 7.2.

<sup>363</sup> *Ibid.*, Para. 3.

Barrows made several valuable observations on the new mandatory provisions of Russian PSAs. From Barrows' point of view the legislator left it unclear, whether Russian companies should be involved as co-investors or whether the PSA law guarantees them only a more limited role of contractors. The provision of Article 7.2 is related to the obligation to involve national contractors. The law allows both Russian and foreign investors to take part in auctions. The PSA is signed with the winner of an auction, so the law does not limit the co-investment shares. The second observation is on the duality of the granting system.<sup>364</sup> The area under a PSA must also be granted by a license from the Federal Government. According to the amended PSA law, the investor is granted a right for exclusive use of a parcel of subsoil for exploration and extraction of petroleum. The use of surface land, water and other natural resources (if any) is not exclusive and should be performed with due compensation to other co-users.

Nevertheless, there is room for further improvement of Russian PSAs. First, it is paramount to develop a Model PSA and establish it as the executive regulation in all federal units that have oilfields available for exploration and production under the list of PSA oilfields.<sup>365</sup> In addition, it is important to make these documents available to the public both in the petroleum extracting regions of Russia and in other federal units. Second, it is important to develop a model compensation agreement with Indigenous residents of the extraction area. This document also should be available to the public. Third, it is important to strengthen

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<sup>364</sup> Barrows, *World Petroleum Arrangements*, Russia & NIS, 2002 at 253.

<sup>365</sup> See: *Federal Law No. 106-FZ Concerning Production Sharing (Luginets, Fyodorov & Other Oil & Gas Condensate Deposits)*, 1999; *Federal Law No. 87-FZ Concerning Production Sharing (Kirinsky Prospecting Block of the Sakhalin-3 Project)*, 1999; *Federal Law No. 131-FZ Concerning Production Sharing (Tyan Oil Deposit)*, 2000; *Federal Law No. 73-FZ Concerning Production Sharing (Shtokmanov Gas Condensate Deposit)*, 2000; *Federal Law No. 1-FZ Concerning Production Sharing (Vankorskoye Gas & Oil Deposit)*, 2000.

mechanisms for non-biased assessment and monitoring of social and environmental impacts.

According to foreign experts, PSA contracts are an appropriate contractual instrument for the development of risky and hard-to-produce oilfields. PSAs are also useful for secondary petroleum development. At the same time, accounting in kind, namely sharing of production, is an important feature of most contemporary PAs. Because of statutory changes in 2003-2006, petroleum resources as well as other natural resources in Russia and on its continental shelf will be offered, first, in open tenders for competitive bidding. If there are no purchasers on bidding terms or there is only one participant the tender will not be considered valid. Only then can the right to develop the petroleum be re-bid on PSA terms.<sup>366</sup> Thus, PSAs will be applied on a case-by-case basis, mostly for development of complex and capital-intensive offshore projects.<sup>367</sup>

#### **4.6. Conclusions**

The factors that lead to instability of the investment climate in general can be classified as follows: (1) economic, (2) political, (3) legal. Economic and political factors are largely analyzed in sovereignty and “resource curse” studies. Economic factors that allow negotiating unsustainable terms of PSAs are common in all the case studies examined above. These factors are: (1) internal or external debts of the host country, (2) budget deficits, (3) corruption, (4) unstable rate of the host country’s national currency, inflation.

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<sup>366</sup> “Market overview”, editorial (2003) 260 Energy Economist 25 at 25–29.

<sup>367</sup> Joseph McAllen, “Making Sense of Merger Mania” (2003) 70 (6) Petroleum Economist 32 at 33.



The case studies also revealed that all countries initially turn to PSAs either because of domestic financial hardships or because of a macroeconomic crisis, namely a decline of oil prices. At that time, the attraction of foreign investors is much more important for the government than environmental protection and other sustainability issues. Besides, the fluctuations in oil prices are very unpredictable, especially in the long run. There is no economic possibility, and no contractual mechanism, to take into account future oil prices during the formation of PSAs. Thus, if the contract is not flexible enough, there is a risk that the state will make efforts to renegotiate agreements signed in crisis.

The PSAs of the late 1960s - early 1970s were formed, signed and implemented long before the concept of sustainable development. They were not sustainable, although they were consistent with international environmental law of that time. These contracts were a progressive development, if compared to traditional concessions.

The development of PSAs in the 1970s – 1990s was based both on economic preconditions and development of international environmental law. This period can be characterized by including into the contracts small, but significant, provisions that contribute to environmental protection and take into account the interests of local societies. The most sustainable (compared to others) contracts were developed and signed after the Rio 1992 and Johannesburg 2000 developments in international environmental law.

Case studies revealed three ways of sustainabilizing PSAs: (1) upgrade of Model PSAs, (2) renegotiation of existing contracts and (3) exclusion of PSAs from the fiscal options for foreign investors. The most stakeholder-friendly way, according to the case studies, is a reform of the model PSA aligned with a reform of legislative provisions on petroleum

development. The renegotiation can also have a positive effect, if it is not limited to alteration of profit share. For a long period of time, renegotiation remedies for unilateral alteration or cancellation of PSAs were based on the concept of permanent sovereignty over natural resources. Besides, the renegotiation does not necessarily lead to solution of the non-parties' problems with oil development. In case of numerous negative examples of PSA implementation within a certain jurisdiction, the decision to abstain from using this type of contract would also contribute to sustainability. Exclusions of PSAs from fiscal options will contribute to sustainability, only if the alternative PAs will contain social and environmental protection provisions.

## **Chapter Five. Conclusions and Recommendations**

### ***5.1. Conclusions***

The issue of upgrade and adaptation of PAs in order to meet the needs of domestic populations is of great importance to all oil exporting countries now. PSAs are the most frequently used type of PAs and the most suitable legal instrument for the development of probable petroleum resources. Most experts agree that in the near future hard-to-produce, far-reach and sophisticated oil resources will be in high demand; consequently, the use of PSAs for attracting of foreign investment will be dominant.

The fluctuations of global oil prices, as well as national political events, have a significant impact on negotiation and renegotiation of PSAs. When oil prices are relatively low and the financial obligations within the country are unfavourable, the host governments frequently attract foreign investors to enter PAs on terms that threaten sustainability in general and interests of particular groups of sustainability stakeholders. When oil prices rise, host governments try to renegotiate the oil split formula. The argumentative basis for such attempts was elaborated by theorists of permanent sovereignty over natural resources. The remedies for the protection of foreign investors were discussed by experts in the framework of the “resource curse” theory.

Within the last five – six decades there was a large number of theorists who worked on issues of making foreign mineral and petroleum investment an instrument for promotion of global and domestic wealth, as well as for the protection of social values and environment. They worked on this problem from multiple dimensions, and their views range from defending the interests of investors to protecting the human rights of the local residents.

The most important solution for the problem discussed is the multiple stakeholder involvement. The consideration of interests and rights of other sustainability stakeholders was proved to be the method of finding mutual interests of IOCs, host governments and local residents.

The key achievements of the sustainable development theory in promotion of sustainability in the petroleum sector are: (1) development of private incentives for the protection of local residents and environment, (2) involvement of stakeholders into the decision-making processes on petroleum resources, (3) evaluation of downstream and upstream agreements from the point of view of sustainable development. Besides, the concept of multiple stakeholders provides arguments for renegotiation and adaptation of PAs in order to achieve more sustainable implementation of PAs, and, consequently, better balance between economic, environmental and social concerns in the petroleum sector.

The very idea of the quest for sustainability in extractive industries met significant obstacles in recent decades, mostly because of the absence of a substitute for oil. At the same time, oil is not the only natural resource which is used during petroleum operations and thus there is a possibility for *non-stricto sensu* petroleum development. Thus, evaluation of PAs from the view of sustainability was focused on pro-social and pro-environmental terms of those contracts.

Although the role of contract is minimal in overriding unsustainable domestic legislation, there the use of PAs as a supportive legal instrument for implementation of international public arrangements holds a great promise. The case studies in chapter four also prove that an unsustainable PSA necessarily provokes a renegotiation within a decade of its effective

date. For a long time the arguments for such renegotiations were based on the concept of permanent sovereignty over national natural resources. Unfortunately, if renegotiation does not take into account the interests of the host country, nationals and domestic businesses, it results only in changes in the oil split formula.

Analysis of the role of PSAs in protection of the environment and meeting other goals of sustainable development revealed the multiplicity of legal roles of this contract. First, the PSA formalizes a private agreement under which the IOC receives the right to invest in petroleum development within the statutory territory of a particular jurisdiction and reimburse its expenditures from future production. Second, the PSA locks the chain of petroleum regulations and makes petroleum development in the agreed area possible. Third, under the PSA, the IOC and the state party have shared control over petroleum operations and thus the PSA frames a public-private partnership. Additionally, the host governments aim to be able to replace foreign experts with national personnel at the end of the contract term and continue oil development, if the reservoir will be productive at that time. Taking into account that PSAs were invented to override Indonesian dependency on colonial concessions, the whole development of PSAs reflects its third role, namely the instrument of social development.

The case studies support the hypothesis that changes in such terms as the contract area, contract duration, phases of implementation (exploration, development and exploitation), work program obligations, relinquishment and abandonment, reclamation and shared risk management can make the contract more sustainable, if the particular wording of such terms considers the interests of other sustainability stakeholders. These changes occur very slowly, because petroleum the evolution of contracts over several decades has been focused

on oil sharing formulas. Although pro-sustainable terms of PSA cannot override the obstacles to sustainability that are generated by higher levels of petroleum regulation, such terms have a number of merits, they: (1) fill in the gaps of regulations, (2) frame private sustainable incentives, (3) prevent the state party from unilateral changes without due justification, (4) prevent IOC from socially improper investment and thus from fuelling local and global social tensions.

## ***5.2. Recommendations***

### **5.2.1. For Host Governments and NOCs**

The role of the State party in a public-private partnership in general, and in a PSA in particular, is to merge public and commercial interests. In order to achieve this sophisticated goal, taking into account both the research and the case studies discussed above, the host governments should use one or several of the following strategies: (1) issue and update a “model PSA” as a part of the domestic petroleum policy, (2) make a sufficient effort to align their international environmental and human rights protection obligations with their petroleum regulations and arrangements, (3) involve citizens in decision-making processes regarding petroleum development, (4) ensure reinvestment and sound allocation of petroleum benefits.

There are no methods to exclude political risk, but there is a possibility of strategic mitigation of reputation risk in investment and public impediment of oil development.

### **5.2.2. For the IOCs**

At first glance the rights and interests of IOCs are not correlated with the rights and interests of non-parties. At the same time the IOC is deeply interested in stable

implementation of the contract over a long period of time. For the market as well as for national policy, 25 years or longer is unpredictable. Besides, the extensive investments such as exploratory and drilling expenses return in approximately 10 to 15 years and, for the IOC, it is ultimately important to keep the contract stable at least for this period of time. Private incentives for sustainability in the oil and gas sector are ultimately important because the IOC can propose measures that are feasible because of the experience of the oil company and welcome by the host government. Several IOCs have proved that co-operative, stakeholder friendly and pro-sustainable investment is the best policy versus probable renegotiation. On the other hand, there are plenty of examples that a relatively high government take does not guarantee stability of the contract.

### **5.2.3. For the NGOs**

NGOs are able to assist in an unbiased assessment of the social and environmental impact of oil extraction on the life of local residents. Besides the risk management assistance, NGOs are capable of replacing the state in dispute resolutions, prevent the state from being a judge in its own case. In many cases this activity can generally contribute to environmental monitoring performed by these organizations.

### **5.2.4. For the Local Residents**

It is difficult to overestimate the role of public incentives, public opinion and democracy in general in achievement of local and consequently global well-being. Obviously there is no PA in the world that will guarantee democracy or even slightly affect the political regime of the host country. At the same time, PSAs with their concept of shared management and replacement of foreign experts by nationals by the end of contractual term provide a great

opportunity for involving other sustainability stakeholders. This can be performed directly by training and employing nationals with the goal to eventually replace the foreign experts. Additionally, sustainability stakeholders such as local residents can benefit from involvement of local businesses as subcontractors.

### **5.2.5. For Future Research**

In this thesis, some issues were not discussed in great detail because they fell outside the scope and limitations of the study, which were set out in the first chapter. At the same time, such issues as the role of NGOs in the petroleum sector, private non-contract incentives of foreign investors, public involvement in decision making and preliminary impact assessment and some others are highly important for “sustainabilizing” the petroleum industry and these issues each deserve a focused theoretical investigation.

### **5.3. Final Remarks**

To sum up the research laid out in this thesis I would like to say that PAs in the modern world cannot be absolutely sustainable and this will remain the case for some time. In the thesis it was shown how PSAs in four different jurisdictions slowly evolved towards sustainability, which proves *inter alia* that such a development is possible and indeed took place since the 1970s. The perfection of public environmental law instruments, evolution of public-private provisions of international law of development and perfection of private instruments in the petroleum industry made it possible to discuss the protection of the public interest by means of petroleum contracts.



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