

Production Sharing Contract: An analysis

**“PRODUCTION SHARING CONTRACT: AN
ANALYSIS”**

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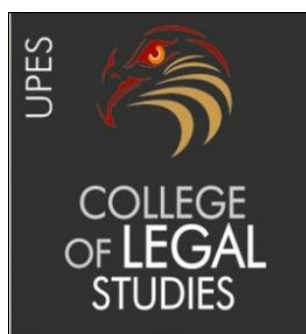
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*This dissertation is submitted in partial fulfilment of the degree of B.A.,
LL.B. (Hons.)*



College of Legal Studies

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Production Sharing Contract: An analysis

DECLARATION

I declare that the dissertation entitled “**Production Sharing Contract: An Analysis**” is the outcome of my own work conducted under the supervision of Dr.AshishVerma at College of Legal Studies, University of Petroleum and Energy Studies, Dehradun.

I declare that the dissertation comprises only of my original work and due acknowledgement has been made in the text to all other material used.

Shubhangni Jain

11th April 2016

Production Sharing Contract: An analysis

CERTIFICATE

This is to certify that the research work entitled “ **Production Sharing Contract: An Analysis** ” is the work done by **Shubhangi Jain** under my guidance and supervision for the partial fulfilment of the requirement of B.A., LL.B. (Hons.)at College of Legal Studies, University of Petroleum and Energy Studies, Dehradun.

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ABSTRACT

For achieving energy security and self-sufficiency, it is important that a country has an efficient and effective mechanism for exploration and production of energy resources. With this very purpose in mind, the Production sharing contract was introduced in India after the liberalization of economy. In Production Sharing contract the state is the owner of the resources who engages a private contractor for exploration and development activities. The risk is borne by the contractor who is at the risk of losing investment in absence of any commercial discover. On the other hand, if there is a discovery made then the contractor is entitled to profit oil and cost oil. The Production Sharing Contract as compared to Concession Agreement is that the ownership of the natural resources lies with the contractor. This ambitious policy was expected to revolutionize the energy sector, however, over the years the failures of PSC have often overshadowed the sparse achievements that it has had. Other than introducing foreign investments, the PSC has not done much and the KG-D6 basin controversy finally put a stamp on its ineffectiveness. With the struggling Indian economy, the stifling growth of the oil and gas sector and the ever increasing rise in oil prices, it is important to revise the existing policy and laws and revive this industry. Thus, the very purpose of this dissertation is to analyse the production sharing contract and its related aspects and to discuss its failures and successes with a aim to suggesting improvements in the existing regime.

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“The lawyer with the briefcase can steal more money than the man with the gun.”

— Don, Vito Corleone, The Godfather

*Dedicated to my beloved mother whom I cannot thank enough for making me who I
am today*

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ACKNOWLEDGMENT

I express my heartfelt gratitude to the College of Legal Studies, University of Petroleum and Energy Studies for giving me the opportunity to make dissertation on Production Sharing Contract through which I was able to gain immense knowledge on the subject.

I have put in a lot of effort in preparing this report and I hope you will appreciate my work. However, the success and final outcome of the project required guidance and assistance from and I am extremely grateful for their help. Professors, teachers are an important part of a student's life. They nurture us and mould us into responsible and educated citizens. Without them, education is incomplete. For this, I'd like to thank Dr.AshishVerma for his guidance and support all throughout making this dissertation. I'd also like to thank Ms.ShikhaDimri for her assistance and support in making the dissertation. I would also like to thank Mr.Rajkumar Narayan for introducing us to the intriguing world of oil and gas sector and developing immense interest in it.

I'd also like to thank my family and my beloved friends for their constant help and support. I couldn't have done it without them. And finally, my gratitude to the support staff of the organisation who often go unacknowledged however without whom no organisation could ever function.

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Preface

"Let me tell you something we Israelis have against Moses. He took us forty years through the desert in order to bring us to one spot in the middle east that has no oil"

Golda Meir, The 4th Prime Minister of Israel

Imagine a life without power supply, no petrol or diesel to run our vehicle, no kerosene to give us light and no gas to run our cylinder. Hard to imagine? This is the power of the oil and gas industry. Energy runs the world. A day without energy is hard to imagine and even harder to live. Since time immemorial, man has searched for energy, for fuel. The early man rubbed two stones together and discovered it could produce fire. He used this fire for keeping him warm and for cooking his meals. However, the quest for energy did not end at this. Man went to find oil, gas, coal, electricity and everything that could make his life easier. From a necessity, energy turned into a luxury. In his quest for energy, man discovered the greatest of them all i.e., crude. It was back in the 1880s when oil was first found in Pennsylvania that this pursuit for crude began. What followed was an oil boom. All states in the US and then all countries around the world started digging for oil. They knew this could make them rich and powerful. The wealth lay in oil. Oil was a symbol of power. And since then it has not changed. Owning oil and gas is an asset for any nation. The middle eastern countries owe their progress to oil and also owe their failure to oil. Some countries became rich like the United Arab Emirates and Saudi while some like Iraq got involved in a tussle with the western power and lost all their wealth to them. It was simple whoever aligned with the West could keep its resources by sharing it with the west and whoever did not would be deprived of their resources forcefully. The countries who did not have crude started depending on others. All that mattered was oil. Oil led to wars and conflicts. Oil made rebels terrorist. Oil and gas became an extreme volatile sector and now every country wanted their own and this led to exploration and production regimes in various countries. The shale boom in America a few years back have led to countries craving for self-sufficiency and energy security. India, a developing country, touted to be the next big power and the driver of world economy craves for oil. With this aim in mind, India started exploration and production in 1974 through its national oil companies. However, with time the NOCs could not fulfil the demand. They did not have the capital nor did they have the technology. It was then that India privatized the energy sector in 1991. Now the

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NOCs entered into joint ventures with the private companies. It was in 1999 that the market was open on a full-fledged scale. In 1999, the first round of bidding was done under the NELP policy where private investors and NOCs competed on an equal footing. With NELP came the Production Sharing Contract. Initially, PSC showed hopes of energy security however only after nine years the hopes were shattered. The KGD6 controversy showed that PSC was not right and had a lot of loopholes. India is far from being self sufficient. To the contrary, India is one the largest energy consumer and also one of the largest importer. The demand is not decreasing any soon. Thus, we need reform. Reform has come in the form of Hydrocarbon licensing policy which aims to bring in revenue sharing contract as a replacement of production sharing contract and a uniform licensing policy for convention and unconventional resources.

Thus, the Objective of this dissertation is to critically analyse the production sharing contract and its related aspects and to discuss its failures and successes with a aim to suggesting improvements in the existing regime.

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ABBREVIATIONS

| | |
|---|--------|
| Production sharing agreement | PSA |
| Production sharing contract | PSC |
| National oil company | NOC |
| International oil company | IOC |
| Joint Venture | JV |
| Joint operating agreement | JOA |
| Reliance Industries limited | RIL |
| Krishna Godavari Dhirubai 6 | KG D6 |
| Oil and natural gas Corporation | ONGC |
| Indian Oil Company | IOC |
| Indian Oil Corporation of India | IOCL |
| Gas Sale and purchase agreement | GSPA |
| Oil and natural gas | O & NG |
| Exploration and production | E & P |
| New Exploration Licensing Policy | NELP |
| Hydrocarbon Exploration Licensing regime | HELP |
| Ministry of Petroleum and Natural Gas | MOPNG |
| Director general of Hydrocarbons | DGH |
| Petroleum and Natural Gas Board | PNGRB |
| Oil Fields (regulation and development) Act | ORDA |
| Petroleum and Natural Gas Rules | PNG |
| United States of America | USA |
| United Kingdom | UK |
| World Trade Organisation | WTO |
| British Petroleum | BP |
| British Gas | BG |
| Hindustan Petroleum Corporation Ltd | HPCL |
| Gas Authority of India Ltd. | GAIL |
| Permanent Sovereignty over natural | PSNR |

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| | |
|--|--------|
| resources | |
| New International Economic Order | NIEO |
| Organisation of petroleum exporting countries | OPEC |
| Organisation of Economic corporation and development | OECD |
| Revenue Sharing Contract | RSC |
| Liquefied natural gas | LNG |
| Turkmenistan-Afghanistan-Pakistan-India | TAPI |
| Trillion cubic metre | TCM |
| Million Metric Tonnes per annum | MMTPA |
| Million Metric British Thermal Units | MMBTU |
| Exclusive Economic Zone | EEZ |
| Petroleum Exploration License | PEL |
| Mining License | ML |
| United Nations Convention | UNCLOS |
| Income Tax Act, 1961 | IT Act |
| Export Promotion of Capital Goods | EPCG |
| Environment Protection Act, 1986 | EPA |
| State Pollution Control Board | SPCB |
| Central Pollution Control Board | CPCB |
| Expert Appraisal Committee | EAC |
| Competition Commission of India | CCI |
| Ministry of Law | MOL |

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TABLE OF CASES

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| Babubhai Jashbhai Patel & Ors. v. Union of India & Ors. Special Civil application No. 2912 of 1982. | Pg. 38 |
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| Reliance Industries Ltd. v. Indian Oil Corporation Limited & Ors. | Pg. 52 |
| Yukos Universal Limited (ISLE OF MAN) v. The Russian Federation PCA Case No. AA 227 | Pg 55 |
| White Industries Australia Limited v. The Republic of India, UNCITRAL..... | Pg 56 |
| Canoro resources Ltd v Union of India Gujarat Gas (Regulation of Transmission, Supply and Distribution) Act, 2001 2011 (179) DLT 72 | Pg. 75 |
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SYNOPSIS

STATEMENT OF PROBLEM

For achieving energy security and self-sufficiency, it is important that a country has an efficient and effective mechanism for exploration and production of energy resources. With this very purpose in mind, the Production sharing contract was introduced in India after the liberalization of economy. In Production Sharing contract the state is the owner of the resources who engages a private contractor for exploration and development activities. The risk is borne by the contractor who is at the risk of losing investment in absence of any commercial discover. On the other hand, if there is a discovery made then the contractor is entitled to profit oil and cost oil.¹ The Production Sharing Contract as compared to Concession Agreement is that the ownership of the natural resources lies with the contractor. This ambitious policy was expected to revolutionize the energy sector, however, over the years the failures of PSC have often overshadowed the sparse achievements that it has had.² Other than introducing foreign investments, the PSC has not done much and the KG-D6 basin controversy finally put a stamp on its ineffectiveness. With the struggling India economy, the stifling growth of the oil and gas sector and the ever increasing rise in oil prices, it is important to revise the existing policy and laws and revive this industry. Thus, the very purpose of this dissertation is to analyse the production sharing contract and its related aspects and to discuss its failures and successes with a aim to suggesting improvements in the existing regime.

▪ LITERATURE REVIEW

1. Books

¹ Rajkumar Narayan *Production Sharing Contract for Exploitation of Hydrocarbon resources* ELR (2014, Vol.2 Part 2)

² Divjyot Singh *The Indian Upstream sector & Gas industry: Towards Brighter future* UPES L. REV. (September 2014, Vol. 1 No.2)

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- Tim Boykett, Marta Peirano, Simone Boria, Heather Kelley, Elisabeth Schimana, Andreas Dekrout, Rachel O'Reilly, "*Oil Contracts How to Read and Understand Them*" Open Oil (1st ed. 2012).

The book aims at contract transparency with respect to various types of oil contracts and how they work. The goal of this book is to educate non-experts about the flow of oil profits and the impact of oil production on economy and environment. The chapters in the book describe actors in the oil industry, the economics of deals and the social, environmental and health concerns associated with extraction.

- 2 Hardinge Stanley Giffard Earl of Halsbury, David Hay, "*Halsbury's Laws Of India (Fuel and Energy)*" Butterworths India (1999)

The Halsbury's law on fuel and energy is part of the volume of 45 encyclopaedic series covering relevant areas of law. This part specifically deals with the energy sector in India. It encompasses varying aspects of energy law starting with an introduction on the background of this industry in India and its history and origin. Then it goes into the specifications by talking about the administration, legal framework, international framework and miscellaneous subjects like environmental impact.

- Daniel Johnston, "*International Petroleum Fiscal Systems and Production Sharing Contracts*" (1994)

This book is an elaboration of petroleum taxation and international negotiations. The book deals with International Petroleum Fiscal Systems and Production-Sharing Contracts. It covers everything from historical development of contracts to terminology of accounting and negotiations, to threshold field size analysis, to arithmetic behind contractual terms. This book is a practical tool to gain understanding on how the Production Sharing Contracts/ Agreements of the international oil industry work and how the negotiations on PSA normally flow. The author concentrates on the mechanics of PSCs and its issues. Some of the

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topics covered include, "Petroleum Fiscal Systems," "Concessionary Systems," "Production Sharing Contracts," and "Risk Service Contracts," etc.

- Anthony Jennings *Oil and Gas Production Contracts* Sweet and Maxwell (1st ed. 2008)

This book is a suite of agreements encountered in the upstream oil and gas industry. It reviews the agreements that are essential to the process of oil and gas development and production in systematic manner. The background is the relationship with the host government via license or production sharing agreement. Next are the agreements between the joint venture companies themselves, governing the relationships they need to build. The books also examines the nature, purpose and terms of agreements. It highlights the common features of production contracts worldwide.

- Leonardo Maugeri, *The Age of oil: The mythology, History and Future of the World's Most controversial resource* (1st ed. 2008)

Leonardo Maugeri describes the history of oil, and explains the fundamentals of oil production in this book. The author debunks the main myths surrounding oil in our times, addressing whether we are indeed running out of oil, and the real impact of Islamic radicalism on oil-rich regions. This book also answers our questions. Ultimately, he concludes that we are not facing a problem of oil scarcity, nor an upcoming oil blackmail by forces hostile to the West. Only bad political decisions driven by a distorted view of current problems can doom us to a gloomy oil future.

- Dr. Eduardo G Pereira and Professor Kim Talus *Upstream Law and Regulation* Global Law and Business (1st Ed. 2013)

The golden age of abundant, easy-to-access oil is over. Most of the largest reserves are relatively accessible, due to governmental control, so international oil and gas companies must search for new and more complex oil and gas provinces. Independent companies are adopting an even broader approach as they analyse

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unconventional plays. The 21st century oil and gas industry clearly demands a global approach, as companies from major to small compete on the international stage.

This practical handbook analyses the most relevant petroleum provinces, summarising upstream regulation and key concerns in over 30 important and emerging oil and gas jurisdictions. Issues featured include the key terms of petroleum law, the types of legal arrangement in place, the fiscal terms, how to qualify to acquire acreage, governing law, dispute resolution mechanisms and governmental control. The book therefore represents a comprehensive worldwide resource for upstream investments. This book appeals to a range of participants, including international oil companies, independents, national oil and gas companies, legal advisers and consultants, who will be interested to understand the general requirements of oil and gas provinces and the respective best practices across the globe.

2. Journals/Articles

- Tonye Braide *Are domestic market obligations under international petroleum Agreements compatible with WTO obligations?* CEPMLP L. REV. (2013)
<www.dundee.ac.uk/cepmlp/gateway/files.php?file=cepmlp...26.pdf> (last accessed on 15th November 2015)

This article analyses the role of World Trade Organisation (WTO) in governing the trade in natural resources. The paper carries out a legal analysis of Article XI: 1 of the General Agreement on Tariff and Trade (GATT) in relation to export restrictions with a view to ascertaining whether WTO member countries can impose Domestic market obligations on IOCs operating within their domain. The paper examines the question whether Domestic market obligations is compatible with the obligation of WTO member countries to promote market access by eliminating all forms of non-tariff barriers to trade. The paper finds that subject to the requirement to be applied within the confines of Article XX(i) of the GATT, DMO measures are compatible with WTO law.

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- XLIX Surya P Sethi *Pricing Domestic Natural Gas Some Improvement, But Flaws Remain* Economic and political weekly (November 01, 2014)
<<http://www.epw.in.spicework.ddn.upes.ac.in:2048/web-exclusives/pricing-domestic-natural-gas.html>> (last accessed on 15th November 2015)

The Rangarajan committee report along with its other suggestions also suggested a change in the pricing formula for natural gas. The new formula for the pricing of natural gas produced in the country is an improvement on the Rangarajan formula because it corrects many of the computational flaws of the much-criticised approach of the previous government. This article discusses the new pricing formula as compared to the previous one.

- Kirsten Bindemann *"Production Sharing Agreements" An Economic Analysis* Oxford institute for energy studies(1999)
<<http://www.oxfordenergy.org/wpcms/wp-content/uploads/2010/11/WPM25-ProductionSharingAgreementsAnEconomicAnalysis-KBindemann-1999.pdf>> (last accessed on 19th November 2015)

The first part identifies the rationale behind PSAs and forms the basis for the following theoretical argument. The study is an overview of ownership issues in general and contrast PSAs with other major contract types namely concessions, service agreements and joint ventures. This study also concerns itself with the balance between risks and rewards and the division of benefits among the parties to the contract which have not yet been analysed with the tools of modern industrial economics. Finally, it shall highlight the role of national oil companies is evaluated with regard to both its relationship with the government and its interaction with the foreign contractor.

- Divjyot Singh *The Indian Upstream sector & Gas industry: Towards Brighter future* UPES L. REV. (September 2014, Vol. 1 No.2)

This paper gives an overview of the oil and gas upstream sector and analyses the production sharing contract in its context. The paper notes the critical issues strangling the growth of oil and gas upstream sector and suggests a revised policy

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approach for the government to revitalize the energy sector which is the engine for development of any economy.

3. Reports

- Government of India *Report of the Committee On the Production Sharing Contract Mechanism in Petroleum Industry* (2012) <http://eac.gov.in/reports/rep_psc0201.pdf> (last accessed on 19th November 2015)

The Government of India constituted this committee to look into the Production Sharing Contracts (PSCs) mechanism in petroleum industry. The committee has aimed at arriving at a mechanism that would lead to greater synergy between the Government and oil companies, thereby enhancing domestic production, simplifying monitoring procedures, and incentivising investments in the exploration and production of hydrocarbons, including from the private sector. The committee was headed by Dr C. Rangarajan, Chairman, Economic Advisory Council to the Prime Minister

- 18 Michael Likosky *Contracting and regulatory issues in the oil and gas and metallic minerals industries* Transnational Corporations (2009) <http://unctad.org/en/docs/diaeiia20097a1_en.pdf contractual and regulatory issues in the oil and gas and metallic industries> (last accessed on 15th November 2015)

This article looks at key regulatory and contractual issues in the oil and gas and also metal minerals industries. It provides an overview of contract types and discusses several state-of-the-art issues. In discussing contract types, it first provides a brief historical backdrop. It then turns to the major contract types. Among state-of-the-art issues, the article considers (1) contract renegotiations, mainly with regard to Bolivia, Ecuador and the Venezuela; (2) the proposed Iraqi oil law; and (3) the handling of human rights and environmental issues by projects.

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- Report of the Central Bank of Russia *Production sharing agreements* (2011)
<<https://www.imf.org/external/pubs/ft/bop/2011/11-17.pdf>> (last accessed on 19th November 2015)

The article describes a Production sharing agreement (PSA) in general and then goes into the description of PSA in specific to Russia. This paper by the Central Bank of Russia also delves into the economic aspects of the PSAs.

- K B Bhatnagar *Direct Taxes Digest (1922-2011); Supreme Court/ High Courts/ Tribunals*

It is a digest covering judgments delivered by the Supreme Court, various High Courts and Tribunals over a span of nearly nine decades. Direct Taxes Digest (1922-2011) in 5 volumes presents an exhaustive collection of judicial decisions relating to the Income Tax Act, 1961, Wealth Tax Act, 1957, Expenditure Tax Act, 1987, and Interest Tax Act, 1974. The digest also highlights the various taxation provisions applicable to PSC like Section 42 of the Income Tax act, 1961.

RESEARCH QUESTIONS

1. What are the various oil contracts and which one of them is the most effective mechanism?
2. What is the business, contractual and legal framework of Production Sharing Contract?
3. What are the benefits of having a Production Sharing Contract framework?
4. What are the fallacies in the Production Sharing contract in India?
5. What alternative mechanisms can be adopted by India for Exploration and development?
6. What improvements need to be brought about in the Production Sharing Contract to make it effective?
7. What legal alterations need to be made in the law governing oil and gas upstream sector?

METHODOLOGY

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The nature of research is purely doctrinal which involve analysis of existing statutory provisions and cases laws as well as analytical methodology is opted to carry out study relying mainly on secondary data which includes journals, articles, commentaries, textbooks, reference books, internet sources, e-books, committee and law commission reports.

The method of research adopted for the project is critical analyses of the data available along with theoretical and analytical methods of research. For the mentioned purpose, the Researcher will analyse the existing legislative provisions, decided judgment, scholarly articles and comments on various areas connected with the issue. Researcher has collected materials from various sources i.e. primary as well as secondary sources available at the UPES Library and UPES online e-resources database.

The researcher will also inculcate the opinion of eminent persons in the field of law and oil and gas sector.

RESEARCH OBJECTIVES

The Objective of this research is to critically analyse the production sharing contract and its related aspects and to discuss its failures and successes with a aim to suggesting improvements in the existing regime.

HYPOTHESIS

This dissertation is based on the hypothesis that though "*Production sharing contract in India has proved to be to be unsustainable due to certain legal and contractual fallacies.*"

1. OIL CONTRACTS AND PRODUCTION SHARING AGREEMENT

The principal pre-requisite for exploration and production is to get access to the resources that are to be explored. Before starting any petroleum operation, it is necessary to obtain all relevant and necessary permissions, approvals from the concerned authority. This is where oil contract and licenses play a role. In most jurisdictions, consents come in the form of either concessions, whether as lease or license or by the conclusion of production sharing agreements between the government and the contractor.³ Moreover, these licenses or contracts also ensure the co-operation of the host government as well as compliance by the company of all regulations necessary. This is pertinent in the light that since exploration activities propagate environmental problems, agreements have become rather complex and regulatory structures and licenses/agreements ensure their compliance. However, most importantly oil and gas business generates massive amount of money and it becomes important to define who gets what. Thus, the contract decides how the revenue is to be divided between the parties.

Although the nature and scope of licenses and agreements depends on the legal regime of various nations however, certain standard forms of agreements exist which are modified by nations to suit their needs. This chapter discusses the various oil contracts and license regimes existing in various nations being exemplified by taking examples from different nations. For e.g.: Certain regimes grant license akin to a "profit a prendre" or with propriety rights to the contractor over the exploration area in consideration of a fee or royalty and a defined work programme for eg: Algeria and New Zealand. Some regimes grant licenses in parallel to a more vital agreement consisting of all regulatory requirements that are to be complied with and it may or may not be accompanied by propriety rights. Regimes that follow PSAs even though most of them grant licenses however these licenses have a much lesser authority than the agreements themselves. The authority to explore and produce arises mainly from the agreement and the agreement contains in detail the rights and obligations of the party. India follows a similar regime. Even though the Petroleum and Natural Gas

³ 2 Anthony Jennings "Oil and Gas Exploration Contracts" Sweet & Maxwell, Thomson Reuters (2008)

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Rules require grant of license and lease however, the authority to explore and produce arises from the Production Sharing Contract entered into between the government and the contractor. What is the most pertinent feature of this regime is that it does not confer ownership but only a right to share the production so as to cover expenditure and derive reasonable profit. In case propriety is granted in such a regime, it is often granted to the national oil companies which then enters into a joint venture with private companies for carrying out petroleum operations. The least popular of the lot are the service agreements and the buyback agreements which do not exist today in more than one nation. These agreements are similar to PSAs but what makes them least favourable is that they come with entitlements of a limited nature like granted of certain numbers of barrels etc.

This chapter shall deal with four types of contract namely, (a) Concession agreement, (b) Production sharing agreements, (c) Joint ventures and (d) service contracts including risk service contracts and technical assistance contracts.

| Fiscal regime | Risk | Reward |
|---------------------------|-------------------------------------|--|
| Concession | Contractor | Contractor Government paid in taxes and royalty |
| Production Sharing | Contractor | Shared between government and contractor |
| Joint venture | Contractor and National Oil Company | Shared |
| Service contracts | Contractor | Government. Contractor gets paid in cash. |

Table 1.0: Risk and reward under Various fiscal regimes in Exploration and Development

1.1. Concession agreements

Historically, the concession agreements were the most prevalent and the only ones in existence.⁴ A concession agreement grants exclusive rights and ownership to the

⁴ Tim Boykett, Marta Peirano, Simone Boria, Heather Kelley, Elisabeth Schimana, Andreas Dekrout, Rachel O'Reilly, "Oil Contracts How to Read and Understand Them" Open Oil (1st ed. 2012) Page 33.

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private company over the resources. This form of contract has survived even today though in a different and more modified form. Modern forms of concession agreement have come into being as a reaction against the traditional agreements which were often said to be exploitative. The traditional concession agreements tilted in favour of the contractor and failed to maintain a balance between the rights of both parties. The agreements were considered uneven since the companies only paid a small amount to the government as royalty and took the rest of the resources for its own benefit and profit. Concession agreements started to be considered almost unconscionable. The royalty paid depended on the volume produced and not the value of the produce. Many companies from the United States entered into concession agreements with middle eastern companies specially Saudi Arabia and were often alleged to be exploiting the middle eastern and in a few cases African resources as well. An example of concession agreement is that of between State of Kuwait and a British company by the name of Kuwait Oil Company limited in 1934.⁵

The agreement determined the price payable to the government depending on the produce of 2.40 lb ton of net crude petroleum saved by the company thus leaving no scope to an increase in share.⁶ Moreover, unlike agreements valid today the concession agreements had no particular duration and geography set out. For e.g., the agreement between Kuwait and the British company had the duration of 75 years.⁷ The duration could range from 40 to 75 years. Moreover, they got rights over large tracts of land with no defined limits.⁸ The clause only mentioned geographical sphere and nothing more than that. This meant that it could cover the entire country wherever the resources were to be found. Thus, there was no connection between the interest of the companies with that of the host government. Also, since the time and geographical limits were undefined, the government could not appoint other companies nor explore on its own. The companies could easily create monopoly over the resources and on the industry. All these contractual terms gave wide discretion and arbitrariness to the contractors to determine the scope, nature and

⁵ Oil Concession Agreement, Dec. 23, 1934 Available at: <<http://www.moo.gov.kw/About-Us/Ministry-Decrees/Oil-Concession-Agreement-1934.aspx>>

⁶ *Id.* at art.3(d).

⁷ *Id.* at art. 1.

⁸ *Id.* at art. 2(a) and 2(b).

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extent of exploration. However, with decolonization, countries started gaining control over their resources, the traditional and atrocious concession agreements started to fade away and got replaced by modern forms of concession agreements. An important example of this would be the dispute between Venezuelan government and Exxon wherein the government has nationalised all natural resources and negotiated with private investors to get majority stakes.⁹ United Nations propagated the idea of sovereignty which meant now more nations could gain control over their resources. The Convention on Permanent Sovereignty over natural resources¹⁰ further strengthened the concept of sovereignty of nations over their hydrocarbons. The creation of New International Economic Order and the Organisation of Petroleum Exporting Countries (OPEC) brought revolution to this. Thus, all contracts saw expropriation or renegotiations rising to a plethora of conflicts. All these changes have highlight the need of balancing the rights and the contracts drafted now serve the needs of all parties.

Modern concession agreements that exist today are adopted by more than hundred countries in the world. They are common in countries like United Kingdom, Norway, France, Morocco, Thailand, Australia and OPEC countries etc. The concession agreement works on the same principle however the government share is in the form of taxes and not just royalty. Moreover, the duration and area is clearly defined. Thus, now the balance has been made between the rights of both parties. Two examples of this can be Algeria and New Zealand where concession agreements are successfully being practiced.

Some core features of concession agreements are¹¹:

- ✚ Company has the right over the resources
- ✚ They own it and are free to dispose it
- ✚ The companies have to pay royalty and taxes to the state
- ✚ They also have to pay surface rentals for exploration and production

⁹ Venezuela Holdings, B.V. Mobil Cerro negro holding, ltd. Mobil Venezolana de Petróleos holdings, inc. Mobil Cerro negro, ltd. And Mobil Venezolana de Petróleos, inc. v. The Bolivarian Republic Venezuela., ICSID Case No. ARB/07/27, Award (Oct. 9, 2014).

¹⁰ Permanent sovereignty over natural resources, Dec. 14, 1962, 17 UN – GAOR, Supp. No. 17

¹¹ Frank I. Cascio, jr. *A practical look at the major differences between domestic and international exploration agreements* (Rocky Mountain Mineral Law Foundation, West law through Chapter 12 of 1997)

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- ✚ All equipments belong to the company
- ✚ Like the PSC, they also have time bound work programmes.

However, one major demerit of concession agreement still remains is that of ownership of hydrocarbons because of which developing countries are reluctant to adopt it. However some countries have combated this by requiring contractors to use local content like employee citizens, use good made in the country. Some countries also take operational control by having participation rights in the project and have high tax rates depending on the quantity of the produce.

Illustration: Suppose the revenue is \$100/bbl (hypothetical)

Revenue (\$100/bbl)

Royalty 10%

Remaining revenue: \$90/bbl

Corporate tax: 20%

Remaining revenue: \$72/bbl

Therefore, Contractor gets \$72/bbl and government gets \$28/bbl

1.2. Production Sharing Contract

The PSC was first brought by Indonesia in 1996¹² and is now prevalent in more than forty countries including Peru, Egypt, Libya, India, Malaysia, Kenya, The Ivory coast and The Philippines etc. Production sharing contract is a contract entered into between the government and the investors for exploration and development of hydrocarbon resources for a specific period of time. The essential feature of PSC is that the ownership over the resources remains with the government with the investor getting only a share in the output. It is in essence a risk investment since the only way by which an investor can recover his expense if a commercial discovery is found. However, if no discovery is made then the investor has to bear losses. On the other hand, if the discovery is made then output is divided between the government and the investor. The investor can recover his costs as well as take profits after payment of royalty and fixed amount of profit to the government. The main features of PSC are:

¹² *Supra* note 2.

Production Sharing Contract: An analysis

- ✚ Ownership remains with the government
- ✚ The contractor is appointed for block or a basin
- ✚ The contractor has to work at its own risk and expense
- ✚ The contractor is entitled to get its cost recovery and profit petroleum
- ✚ The profit is to be split between the government and the contractor
- ✚ Equipments and data are the properties of the state
- ✚ They have a defined work programme

Production Sharing Contracts have in the recent past gained immense popularity and momentum in developing countries for two reasons: firstly, that these types of contracts give the host governments control and retainership over their natural resources unlike traditional concession agreements which give ownership to oil companies thus leading to exploitation of resources by private players and secondly, PSAs are often also preferred by countries who do not have the requisite technical know-how and resources for exploration and exploitation of resources. Therefore, developing countries often lean towards PSAs as they find it the best alternative to concession agreements. Many middle eastern countries have shifted from concession agreements due to past acts of exploitation by private players where the private players often paid a very small amount of revenue to the host governments and took away most of the resources for their own benefit. PSAs have turned the balance of ownership of resources from the IOCs to the governments giving ownership and control to the government. The contractor works at its sole risk, sole expense and most importantly under the control of the government.

The main opponent to PSA is modern form of concession agreement and service contracts. Concession agreements are most often used in OECD countries where the land is owned by citizens and not government which just takes a part of the revenue as tax and royalties. A classic example of service contract is Iran where Iranian Buy back agreements are prevalent. In the buyback agreements the IOC invests and when the production begins gives back the oil field to the government or the NOC. The IOC in turn receives its share based on costs incurred by it and the share of profit as already decided by the parties. One main distinction between PSC and concession agreements is that of ownership and easement rights. In concession the former is given and in PSC the latter. In PSC only at the delivery point does the contractor get

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title to it. This is one point that attracts developing countries towards PSC.

Fiscal regime:

The aim of any fiscal regime is ensuring that the provisions are such that they attract foreign investors however at the time ensure maximum rent to the government. Economic rent can be defined as the excess of rental value over and above the cost of production, without any production and without any enterprise.¹³ Thus, the PSA aims to derive as much economic rent and benefit as possible without acting as a deterrent to the investors.

Cost recovery:

Most PSAs have a cost recovery clause which makes PSAs appealing to the investors. The contractor splits the gross revenue or share in production into cost oil and profit oil. In simple terms, the exploration, development and production costs are recovered out of the share of production or the gross revenue. Cost recovery clause is designed to allow the IOCs or OCs to recover their expenditures. The cost recovery model varies from country to country depending upon the geological characteristics of the field or the economic model followed etc. For e.g., in the Indian model, the cost oil is recovered from the gross revenue and after the cost is recovered, the profit oil is divided between the investor and the government. On the other hand, the Indonesian model sets a cost ceiling wherein it places a limit on the amount of cost that can be recovered.¹⁴ It allocates a certain percentage of production for cost recovery. This cost ceiling changes from time to time depending upon the circumstances for e.g., the ceiling has increased from 40% to 80%.¹⁵ The limit can also go up to 100% in the initial years of production as per the 1977 PSC model. However, typically they range from 30% to 60%.¹⁶ In another case, Egypt allows only recovery of 20% exploration costs per annum whereas operating costs can be fully recovered in the year they were

¹³Marcia Ashong *Cost recovery in production sharing contracts: opportunity for striking it rich or just another risk not worth bearing?* Centre for Energy, Petroleum and mineral resources policy, University of Dundee (2010)
<http://www.dundee.ac.uk/cepmlp/gateway/files.php?file=cepmlp_car14_26_222231161.pdf> (last accessed on Jan. 25, 2016.)

¹⁴ *id* at pg. 7.

¹⁵ Blinn, K. W., Duval, C., Le Leuch, H., Pertuzio, A., Weaver, J., *International Petroleum Exploration and Exploitation Agreements: Legal, Economic & Policy Aspects*, 69 (2nd ed. 2009)

¹⁶ *Supra* note 12.

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incurred.¹⁷Countries like Peru allocate a share of production to the OCs and IOC which ranges from 44%-50% depending on the size of the contract area, however, this method is quite unpopular with the IOCs as they may in some cases not allow the full recovery of actual expenditure. At the same time this may allow an unfair bonus to the IOCs since they are unrelated to the petroleum pricing and costs they may allow IOCs to recover costs more than what they incurred. The most preferred model out of the lot is the Indonesian model as setting limit has two fold benefits., one that since the model is based on relevant factors of expenditure therefore it allows the investor to recover its costs completely and second that it prevents inflation of costs by investor thus minimizing the loss to the government. The benefit of cost ceiling is also that it ensures that the host government will have its share of production or profit petroleum as soon as production commences which also goes for OCs who also will not have to wait for a long time to receive their profit petroleum. A late return on revenues is usually a deterrent for investors and also politically unjustifiable often many a times creating possibilities of rigging of costs by investors. This also shields the governments from gold plating of costs and payment of frivolous expenses. Another major benefit is with fixed costs the tax is also fixed thus it avoids complex tax regimes and calculation methods.

In the recent past, the world petroleum market has seen high volatility in prices which can be attributed to many factors including the world financial crisis, US shale gas production and more than anything, the fear of end of oil with the ever increasing demand for it. This has led to oil companies look for unconventional and alternative sources of fuel making exploration activities riskier and more expensive. The companies are also indulging in high risk exploration projects with deep sea drilling and enhanced oil recovery techniques. In such circumstances the investors require greater guarantees and benefits and cost recovery may not be enough. Thus, in the light of these volatilities it becomes important to analyse whether cost recovery serves as an appropriate mechanism to recover costs and also in the light of such high costs the profit petroleum of the government may diminish. The question that also remains is whether cost recovery mechanism will allow high economic rent to the nations.

¹⁷ *ibid.*

Production Sharing Contract: An analysis

The IOCs and OCs invest for three main reasons: one, to get a reasonable return on their investment, an acceptable pay out time for recovering their investment and third the right to export petroleum for future gains.¹⁸ However, when it comes to cost oil the payout time is spread over years and years time. Often, cost oil is termed as bad oil. This is because that the recovery period is too long and does not take into consideration the time value of money and the depreciation of money over time which does not reflect true costs and thus may lead to non-recovery of full costs. This becomes worse when the PSC comes with cost ceiling or carry forward rights. There are also cases when the cost recovery mechanism allows recovery of financing costs but not interest expenses. Thus not all costs are not recoverable. A PSA is a risk contract where the investment is done by the investor and so is the risk taken by it. Moreover, the projects are capital intensive and thus it becomes important to maintain conducive environment for investors to have a cost recovery system which allows full recovery of costs in a timely manner.

If the costs are not completely recovered, then the procedure can be abused as has been the case in India and other developing countries. There is a possibility of gaming with cost oil and manipulations done to inflate it. The PSC in Kazakhstan's Kashagan field has been a subject of abuse by the oil companies.¹⁹ In the 1990s when ENI, a French IOC was involved in a dispute with the government on account of projecting costs higher than what had occurred. Thus, the costs being inflated lowered the share of the government and put them in a loss. As can be seen in the KG-D6 case where Reliance Industries limited inflated costs in order to get more on its investment. Another method for this is cross-subsidization. Ordinarily all blocks are ring fenced i.e., costs can be recovered only from the revenues generated from the given block or license. This may have a major impact on cost recoveries as the revenue in a block may not be enough to fully recover costs. Thus, the facility to cross the fence is a major financial incentive for OCs. India follows this principle. In Indian PSCs exploration costs are allowed to be recovered from other areas however development costs have to be from the license it is granted.²⁰ Many OCs can take advantage of

¹⁸ *Supra* note 11 at pg. 11

¹⁹ *Kashagan Oil Field Development, a collaborative report* available at <http://www.foeeurope.org/publications/2007/KashaganReport.pdf> (Last accessed on 28 January 2016).

²⁰ Article 15 Production Sharing Contract

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cross-subsidization and inflate costs. Yet another way is inflation of costs by proposing a budget higher than what is expected to be by higher entitlement nominations also getting the OCs a higher share in production. What follows is an overinflated cost which enables the IOCs and OCs to fully recover costs without worrying about time depreciation.

For governments thus it is essential to maintain impetus to invest in the E & P activities. This can effectively be done by minimizing risks for contractors for which cost recovery by far remains the best catalyst ever.

Profit Oil:

Profit oil is the share in production that is divided between the government and the investor according to a predetermined formula. Indonesia has an ideal model of PSA with a simple percentage split formula for profit petroleum. The contract stipulates the percentage split which varies in gas and oil. What is a major benefit for the IOCs is that the percentage can increase in its favour if exploration is a risky offshore operation. Many countries including Indonesia, Nigeria, Angola and Equatorial Guinea follow progressive split. Progressive split is determined according to the incremental scale of production, the cumulative production from commencement of production or the effective profitability of the petroleum project.²¹ Usually, the share that goes to the contractor or investor is subject to the prevailing taxes. Certain countries tax the pre-split profit petroleum like India and others like Indonesia tax the post-split profit petroleum.

²¹ *Supra* note 11.

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Illustration:

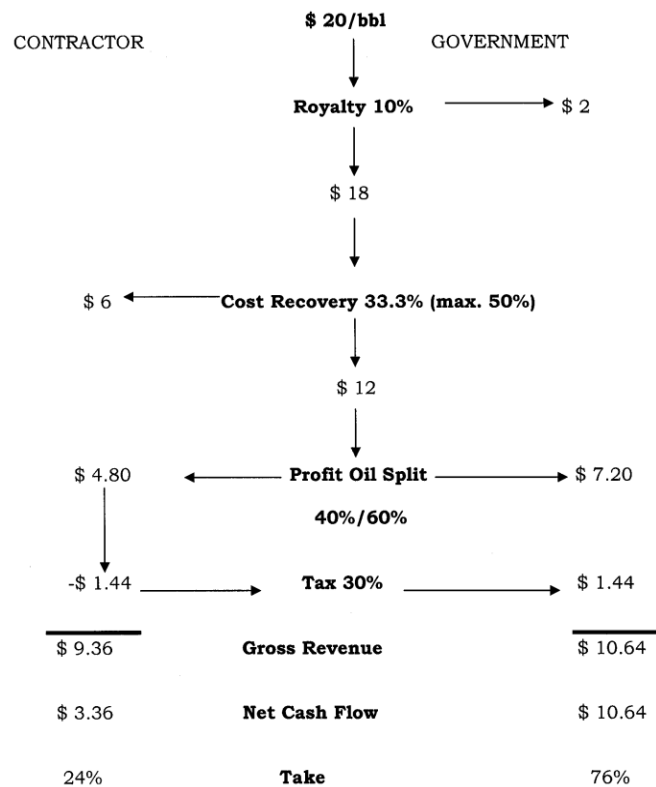


Figure 1.0: Fiscal regime under Production Sharing Contract

In order to attract investors, there are certain incentives that a government can give which includes:

- 🚩 A favourable taxation regime
- 🚩 Payment of taxes by the NOC as a stability mechanism
- 🚩 No Ring fencing - Ring fencing is that losses in one area cannot be covered from profits in another. Ring fencing can lead to subsidization of unsuccessful operations. But sometimes it is an indication that the oil industry would be economically viable and there are high chances of discovery therefore losses would not occur. On the other hand, countries like India do not have such provisions. In India, losses from one contract area can be set off from profits in another contract area. On the other hand, in UK this model has been extremely successful. It led to high exploration activities in the North Sea fields in the 1980s and early 1990s however in 1994 cross ring fencing was discontinued which led to

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a drastic downfall in E & P. Thus, it would completely depend from country to country whether ring fencing is an incentive or not.

- ✚ Tax burden shift - Oil and gas is a risky business with chances of non-discovery, political instability, volatility of market etc. Over this, if there is a heavy tax burden then it is a definite detriment on the health of investments in the country. If the NOC instead of IOC in a joint venture bears the tax then it means higher government share in the profit. Sometimes the IOCs prefer the burden and take a higher percentage split in profit to benefit during time of high oil prices.
- ✚ Stabilization clause or contract stability - The clause inserted in government contracts guarantees the contractor that in case of change in legal structure in the country that adversely affect their rights or is onerous will not be applicable. This is done to prevent any alteration in the economic equilibrium. In case the change is necessary or the government fails to do so, the investor shall be compensated. An example of stabilization clause can be taken from the Moroccan Model Petroleum Contract 2006 which stipulates that the in the event of any change in regulations and if they have an adverse effect on the economic benefits to the contractor then such change shall not be applicable or else compensation shall be granted. This clause is inserted to ensure economic stability and prevention from political risks. The clause also helps prevent the contract from becoming frustrated and thus void.²² However, laws that affect public interest and the needs of the nation should not be stabilized like environment law or laws with social responsibility like labour laws.

1.3 Service Contract

The service contract is much like a sub contract with drilling companies, rig makers etc. but it's not between two companies but the government and the company. The government here exerts greater control than the others. In service contracts, the service of a company is taken and in return they are paid in cash. Only Iraq currently follows service contracts and no other country. The reason for this is that companies look for benefit in kind as well as cash. They also need oil to serve their refineries. Just like the PSC, the sole risk is of the contractor and if no commercial discovery is

²² See Section 56 Indian contract act

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made he loses out on everything. Service contracts are very attractive for foreign investors. There are two types of service contracts:

- a) Risk service contracts: The private company is made to bear risk of exploration and production. They are paid in cash if discovery is made else they get nothing.
- b) Pure service contracts - They are for a particular service like drilling, rigs etc

1.4 Joint venture

In this contract, the foreign company enters into an agreement with the national oil company for E & P. Both parties bear equal risk and share the profits. The percentage of stake holding depends from country to country. It is more structured and corporate than other contracts. Joint ventures are not very prevalent these days. Mostly JVs are found within other contracts but not independently. Russia is one country where this happens. Even though it follows the PSC regime, there are JVs between private parties and NOCs like Gazprom. Another example could be that of Azerbaijan.

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2. HISTORY AND ORIGIN

"The concession was tantamount to surrendering a nation's sovereignty in the hands of the concessionaire"- Dr. Ibnu Sutowo, the first president of Pertamina

PSC is an outcome of nationalist sentiments emerging the post colonial period. It was the idea of sovereignty and nationalism that gave birth to PSC. Traditionally, the only contract that existed for oil and gas exploration was the concession agreement. These agreements were very exploitative in nature. The private or foreign player entered into an agreement with the government for exploration and production wherein the ownership of the resources got transferred in the hands of the company. The host government had little or no role in the operations. What the government got in return was a miniscule amount of royalty which was nothing as compared to what the company got. Thus, the resources started to get drained without benefitting the country. The companies got richer and richer and the nations got poorer, poorer in terms of its resources. The concession agreements were also very loosely framed. The terms are so wide that it further allowed the companies to exploit the rules and regulations. These concession agreements had no spatial limit and often no limit in terms of year. Therefore, the company could stay for 70 years and take away everything found underneath. Moreover, since there was geographical limit sometimes it could drill everywhere in the country. Concession agreements were devised by the Western countries like the United Kingdom and the United State of America to exploit Middle eastern and African countries. Though at first they seemed advantageous in terms of technology and capital but slowly they started behaving like colonialist. With oil came power. The wealth from the oil gave them control over the government and its policies. The government had been put on the leash of these foreign companies. Resentment started growing between the governments. The resentment was further lightened with decolonization and the ideas of sovereignty. The United Nations was formed on the very basis on sovereignty and respecting the sovereign rights of all countries. The Convention on Permanent sovereignty further strengthened the idea that the resources need to be in control of the nations. It was followed by the creation of New International Economic Order which propagated the ideas of independence and equality of the so called. third world countries. Thus, all these factors gave rise to the Production Sharing Agreement. The PSC or PSA gave control to the government over their resources. In this form of agreement, the

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government only gave the contractor right to explore and produce but not ownership and in return the government got a share in the production along with its taxes. It was 1966 that Indonesia first time devised this contract and since then it has become very popular amongst developing countries with over forty countries to have adopted it. The first PSC was entered into between Indonesian NOC Pertamina and American independent. Indonesia had got independence from the Dutch and this contract was a reinforcement of their nationalistic emotions. This contract is now popular among developing countries especially Asian and African who get dual benefit from the contract, one they get capital and technology at the risk of the investor so basically the government has to invest nothing and secondly, they can retain control over their hydrocarbons. In the next part I shall discuss the history of PSC in India.

2.1 History of PSC in India

Petroleum industry is of paramount importance necessary for ensuring economic growth. Oil and natural gas is growing at a tremendous pace in India. The first time that oil was found in India was in Makum in Assam in 1867 nine years after Col. Drake's Discovery in Titusville. Then the discoverers didn't know that they had struck gold. The Indian Petroleum Industry is one of the oldest in the world and since then it has come a long way. After independence the government came out with Industrial Policy Resolution, 1956 As a repercussion of colonization, the government wanted to retain all major industries which had been in the hands of foreign players and were exploited for their benefit. One of these industries was the oil and gas industry. Under this policy, the Oil and Natural gas commission (now corporation) and Indian oil company limited were formed for the upstream. Post independence, Indian oil industry grew in a sheltered environment through the national oil companies growing in a protected and closed environment with no competition at all.

The first discovery was made by ONGC in 1974 at Bombay High. This was followed by many other successful discoveries at Krishna Godavari, Kaveri and Rajasthan sedimentary basins. Initially, only the National Oil companies were granted the Petroleum Exploration licenses. However, with liberalisation in 1991, the NOCs started entering into joint ventures with private investors for E & P. Soon, the government realised that the sector cannot sustain without privatisation due to lack of funding and technology. The transition began when the NOCs weren't able to fulfil

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the energy needs of the country and provide energy security. It was then that we moved from the stage of complete protection to open free competitive markets. This was necessary since the NOCs did not have the requisite technology to efficiently explore our natural resources. The move had thus become inevitable specially by the lack of funds as this business had become extremely risky. The growing demand in the sector which the supply has not been able to fulfil due to various factors have led to introduction of various in the recent times. The lack of domestic production has also provided stimulus to many policies. All these policies have provided an impetus to exploration and production in the sector. The private sector would not only stimulate discovery of new fields but also revive old fields where production has stopped or declined due to lack of technology. With this in mind, in 1997 acreages started to be given to private investors independently through a bidding process.

New Exploration Licensing Policy was thus an outcome of liberalisation and opening of markets. With NELP was born the Production Sharing contract. Under this contract, the companies had to bid for the blocks through a transparent international competitive bidding process. The companies had to bear the sole risk and expense of E & P and if commercial discovery was made they could recover their costs and get a share in the profit.

2.2 Overview of the upstream sector in India

Oil and gas sector has been divided into two parts: Upstream and downstream. The upstream sector involves, exploration, discovery, development and production. Downstream sector involves transport, storage, refining, processing, marketing, sale and distribution. The downstream sector gives us petroleum products like petrol, diesel, synthetic rubber, fertilizers, gasoline, asphalt, jet fuels, lubricants, heating oil, plastic, pesticides, pharmaceuticals, propane, natural gas and anti-freeze.

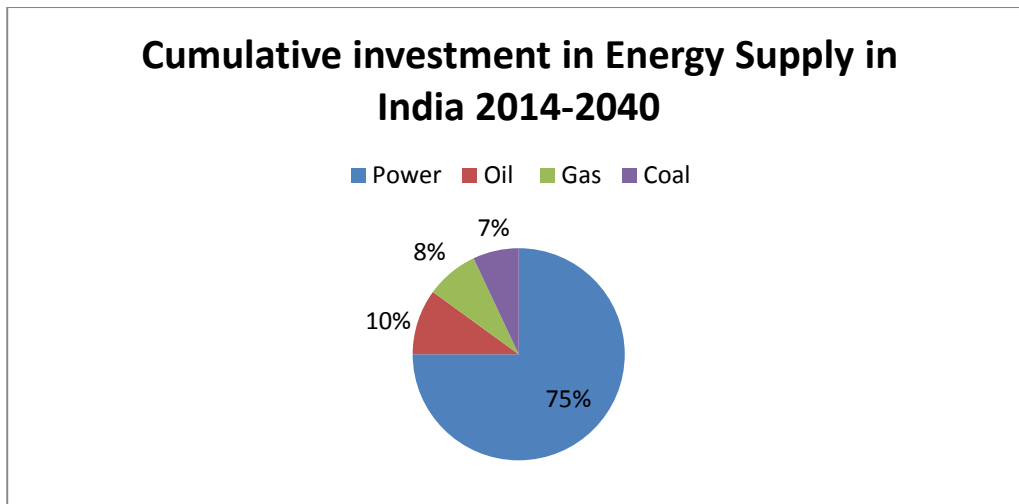


Figure: 2.0 (Source: World Energy Outlook Meeting Delhi 2015)

Oil and gas remains amongst the six core industries in India. Despite the global downfall in oil and gas prices, the demand for oil and natural gas remains undeterred. In addition, India is the fourth largest consumer of natural gas after China, US and Japan.²³ Though, largely dominated by coal, oil and gas have occupied 30% space with natural gas showing tremendous growth and currently accounts for 30% of the consumption. Nuclear Energy (6%) and renewable (25%) have also shown impressive growth rates. However, with the growing awareness regarding global warming and carbon foot print, natural gas is being seen as the next best alternative which is a clean fuel and less polluting.

2.2.1. Reserves and Production

According to the MOPNG, India has total reserves of 1330 billion cubic feet of gas and 760 million tonnes of oil as of 2012.²⁴ Other statistics suggested that it has 47 trillion cubic feet of proven natural gas reserve at the beginning of 2014.²⁵ India has 3.4 million square km of sedimentary basin with over 26 sedimentary basins.²⁶

The basins in India are divided into five categories:²⁷

²³ Make in India- Oil and gas available at <http://www.makeinindia.com/sector/oil-and-gas> (last accessed on 12th march 2016)

²⁴ Basic Statistics on Indian Petroleum and Natural Gas, 2011-12, available at <http://petroleum.nic.in/petstat.pdf> (page 8).

²⁵ *Supra* note 21

²⁶ Sedimentary basins in India available at <http://www.dghindia.org/SedimentaryBasins.aspx> (last accessed on 12th march 2016)

²⁷ *Ibid.*

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Category I (7basins) - Commercial production (Krishna Godavari, Mumbai offshore, Cambay, Assam Shelf and Assam Arakan food Shelf and Rajasthan)

Category II (3 basins) - Known reserves of hydrocarbons but not under commercial production (Mahanadi Andaman and Nicobar and Kutch)

Category III (6 basins) - Geological prospectivity (Himalayan Foreland, Saurashtra, GangaVidhyan, Kerala Konkana and Lakshwadeep and Bengal)

Category IV (10 basins) - Uncertain potential (Chattisgarh, Karewa, Deccan Synecalise, Rewa Damodar, Pranhita Godavari etc.)

Deepwater - East and West coast 400 m water depth to Exclusive Economic Zone

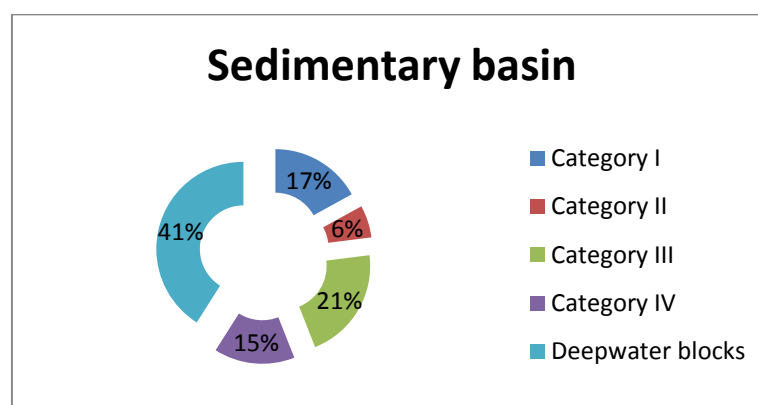


Figure 3.0: Sedimentary basins in India.(Source: MOPNG)

The Natural gas produced up to 2014 stands at an approximate of 25.319 Billion cubic feet out of which 73% is being produced by ONGC and OIL and 26% by private investors. Seven states have contributed to natural gas production including Andhra Pradesh, Gujarat, Tripura, Assam, Rajasthan, Madhya Pradesh, Tamil Nadu and West Bengal.²⁸ India has been increasing its consumption of natural gas which now accounts for 10%. However, 14000 MW of natural gas power plants sit idle due to lack of natural gas supply. Natural gas has become a supply constraint market. Even today, Bombay high is the dominant producer of natural gas. Operated by ONGC it produces 34% of the total gas production. During the financial year 2010-2011, a surge in production was seen with the discovery made in KG D6, however, now its producing a meagre 15mmscd. With the recent discoveries made by the foreign oil

²⁸ Government of India *Crude oil and natural gas production* available at <http://www.petroleum.nic.in/docs/exp.about.oilgasprod2015.pdf> (last accessed on 12th March 2016)

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companies, it is expected that the share of natural gas will increase. CBM though largely unexplored has seen growth in the past few years. The current production stands at 80 MMSCD (2.8 BCF) per annum. This is especially since companies like Essar Oil Ltd. and Reliance Industries Ltd. have acquired stakes in it. Qatar supplies a largest quantity of LNG to India. In 2004, RasGas delivered LNG to its LNG re-gasification terminal set up in Dahej, Gujarat by Petronet LNG Ltd. The next year, Shell commissioned India's second re-gasification terminal at Hazira, Gujarat. The re-gasification capacity is expected to increase according to the XII and XII Five year plans which is expected to increase from current 18.4 BCM to 95 BCM by 2017. The gap between natural gas demand and domestic production is likely to increase indicating a likely increase in imports. With the current natural gas prices, it's the right time for India to import gas however due to lack of storage capacity it cannot store it. Had it been that we had large storage capacity we could have take heavy advantage of the situation.

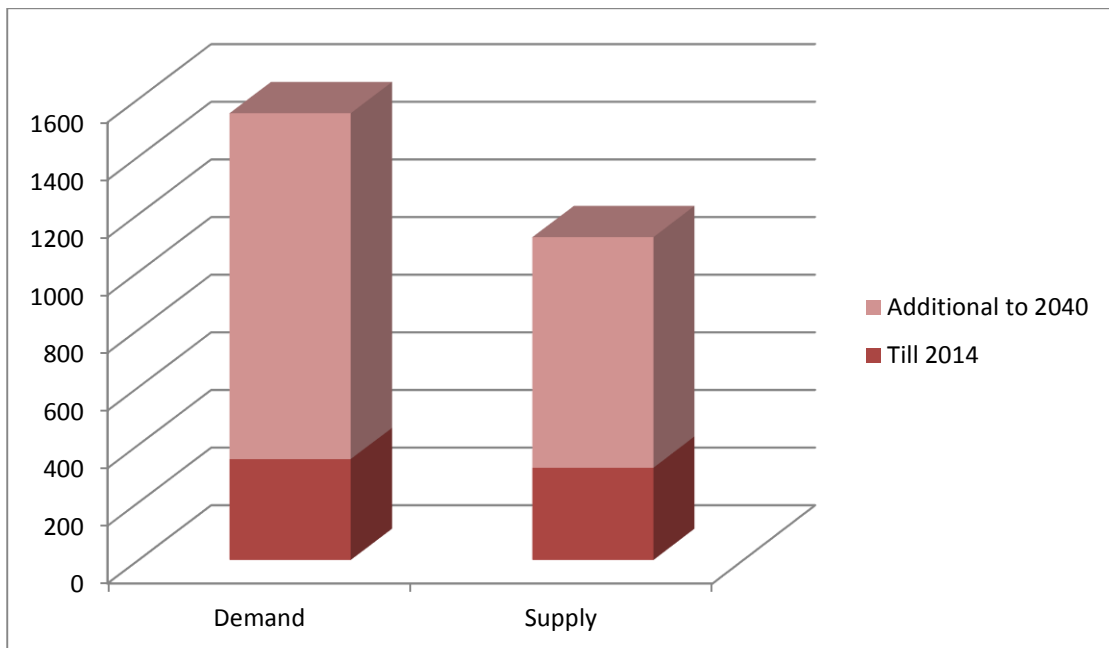


Figure 4.0: Natural gas demand and supply in Asia in bcm (*Source: World Energy Outlook Special report 2015*)

The country's pipeline infrastructure spans for 19,300 km for crude and 16,293 for gas and 15,903 for products which is still the lowest pipeline density in terms of other countries where the density is 50 km per km² in the US, UK and China whereas ours

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is only 3 km per 1,000 square km. Turkmenistan-Afghanistan-Pakistan-India Pipeline (TAPI) is a 1,680 km long pipelines for transport of natural gas and is expected to commence from 2017-2018. The total contracted volume for 30 years for all the three buyers is 0.98 TCM. The contract was entered into between Turkmenistan and India is 2012 through a Gas Sale and Purchase Agreement (GSPA) whereas the governments of the four nations have signed the Inter-governmental agreement and gas pipelines framework agreement. The cost of this project is 7.6 million USD. The source of the natural gas, Yolotan Osman field is expected to hold about 16 TCM.

The Crude Oil Production upto 2014-2015 is an approximate of 28.171 MMT. The contribution of ONGC and OIL is about 68.5 and the remaining 31.5% comes from private investments. Offshore contribution stands at 50.2% and the rest is onland with contribution from Andhra Pradesh, Assam, Gujarat, Rajasthan and Tamil Nadu.²⁹

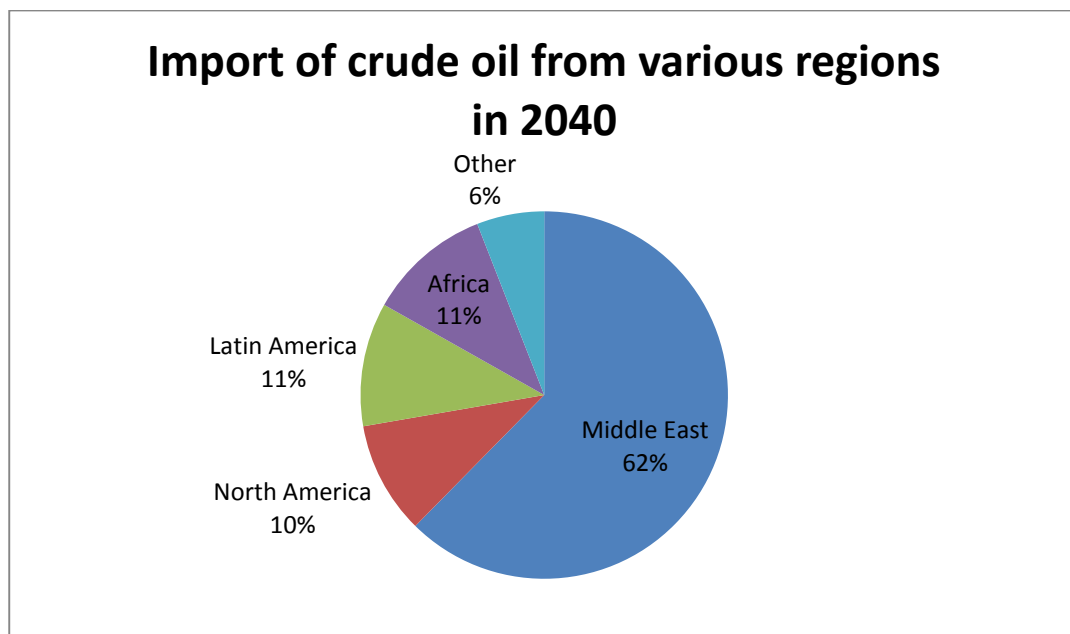


Figure 5.0: Import of crude oil from various regions in 2040 *Source: World Energy Outlook Special report 2015)*

Despite this, historically and even presently, India remains one of the largest importers of oil and gas. Imports constitute about 78% of the total domestic oil consumption. Its consumption has out done the production and import by 3.5%. Energy has become a demand derived market. Indian refinery capacity adds to its

²⁹ *Supra* note 28

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demand. India currently has a refinery capacity of 215.0666 MMTPA making it the largest in Asia after China. This refinery capacity largely owned by the private parties (44%) is significantly increasing with time making India a net exporter of petroleum products. However, the well density of India is very low and stands at 20 per 10,000 km square. Apart from this, the acreage level also remains at a all time low.

The production in India has despite such high levels of consumption has remained stagnant. KG D6 controversy has further hit the production. Largely the demand is met by ONGC (65%) followed by IOL and then followed by private parties with Cairn producing 20% of oil from Rajasthan India has largely been dependant on the middle east for its imports³⁰ in spite of having large reserves in India and the reason for this can be attributed to the lack of exploration and production activities. Moreover, the demand for oil and gas is not decreasing any soon. It is estimated that India's demand for energy will surpass that of the US and China.³¹ Thus, there is a need to meet this burgeoning demand which till now has not been met.

The Oil and gas sector generates 15% of the GDP and the government to increase the number and also to end its dependence on imports has cleared 25 new blocks in 2013. Further, efforts are being made to allocate more blocks.³² Out of the total 310 blocks, 140 has been allotted and 25 are under relinquishment. Currently only 135 blocks are under E & P activity.

³⁰ 3/4th of its imports are from middle east from countries like Iraq, Saudi Arabia, Iran and Qatar

³¹ International Energy Agency *India energy Outlook 2015* (2015)

³² Nishit Desai Associates *Oil and Gas Industry in India: Legal, Regulatory and Tax* (2014)

<http://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research%20Papers/Oil_and_Gas_Industry_in_India.pdf> (Last accessed on 12th March 2016)

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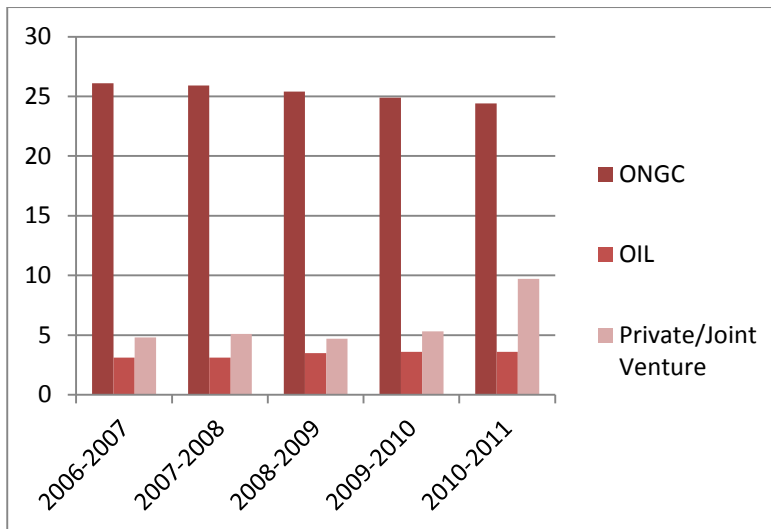


Figure 6.0 Company wise Production in MMT (Source: MOPNG)

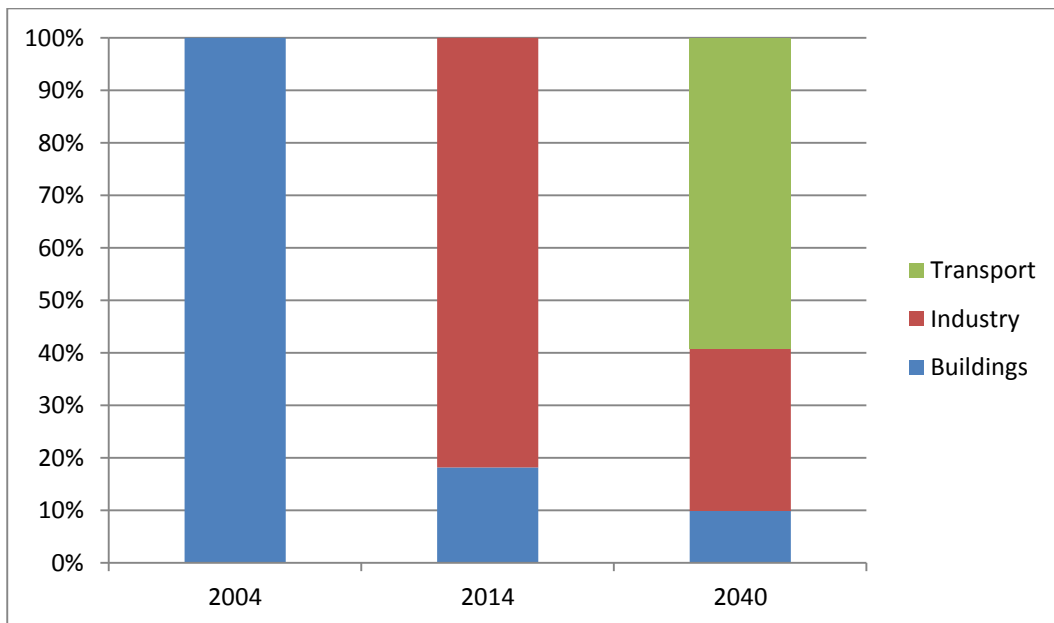


Figure 7.0 Consumption pattern from 2004 to 2040 (Source: World Energy report 2015)

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Figure 8.0: Oil and gas stakeholders in India (Source: Price Water Cooper India Country Insights)

There are four categories where block has been allotted:

1. Nomination basis: Under these petroleum licenses are granted only to Oil and Natural gas Corporation of India and Oil India Ltd. Under this, 28 blocks were allotted.
2. Pre-NELP discovered field: This was granted between 1991 to 1993 under small/medium size discovered fields. Under this there was a joint venture between private companies and ONGC/OIL were granted. 254 blocks were allotted under this regime.
3. Pre-NELP Exploration Blocks: Under this 28 blocks were awarded to NOCs and private companies.
4. NELP: The blocks were awarded 1999 onwards through international competitive bidding to private as well as national oil companies.

2.2.2 Key players:

The Hydrocarbon industry has been largely dominated by the NOCs with ONGC being the largest player. However, lately some private players like Cairn India and

Production Sharing Contract: An analysis

Reliance have played a significant role in the business. The market has evolved from a NOC dominated structure a competitive private run structure. Some companies work in an integrated structure that is they operate both upstream and downstream like ONGC, Reliance, Niko, Essar and British Petroleum etc. Where ONGC dominates the upstream sector, GAIL dominates the downstream structure. ONGC and OIL are the largest producers of oil and gas in India with about 85% share in production of domestic oil and 77.4 % of natural gas production. The share of the private companies is around 14% and 23% of total production of crude and natural gas respectively. India's port capacity is that it can handle up to 850 million metric tonnes. India has 13 major and 176 non-major ports. The refining sector is again dominated by NOCs however private players are entering this sector and there are some dominant players in this sector constituting 44% of the total share. The NOCs which dominate refining are IOCL (42%) and HPCL (10%).

A. ONGC

The largest oil and gas producer in India, it's a government Maharatna established in 1961, contributing 72% in the total production of crude oil and 48% in natural gas.³³To get a perspective, 6 out of 7 basins in India have been discovered by ONGC with more than billion tonnes hydrocarbon reserves in place. It produces more than 1.27 million barrels of oil equivalent on an average per day.³⁴

B. ONGC Videsh

This is a subsidiary of ONGC and functions overseas mainly in the middle east. The main function of this company to carry out E & P outside India. It owns 32 assets in 16 countries and contributes 12% to oil and 7% to gas production.³⁵

C. Oil India Limited

The second largest upstream company in India, it was established in 1959 and is a government navratna. It focuses on Rajasthan and North Eastern parts of India. OIL has over 1 lakh square km of License and mining lease mostly in Rajasthan and North East. However, Rajasthan only constitutes 10% of production, rest comes from North

³³ *Ibid.*

³⁴ See <http://www.ongcindia.com/wps/wcm/connect/ongcindia/Home/Company/History/>

³⁵ See <http://www.ongcvidesh.com/company.aspx>, (accessed on July 15, 2014)

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East. OIL also has participating interest in Mahanadi offshore, Mumbai deepwater, Krishna Godavari deepwater and overseas in Libya, Gabon, Nigeria and Sudan.³⁶

D. Reliance Industries Ltd.

Reliance has been allotted 16 blocks during the first round of bidding including the much talked about KG-D6. Recently, it has become a 30% partner in the joint venture with British Gas and ONGC in the Panna Muka and Mid and South Tapi blocks. It has blocks in Mahanadi, Kavery Palar, Gujarat Saurashtra and Cambay basin and two coal bed methane blocks in Sohagpur East and West Madhya Pradesh.³⁷ Reliance has extensive offshore business as well with offshore blocks in Myanmar and three joint ventures in US shale industry.

E. Cairn India

Another major oil and gas E & P company with a market capitalisation of US \$ 7 billion. It is a part of the Vedanta group and has been rated as the fastest growing company in the World. It operates 27% domestic oil production operating for around 20 years. It has 4 frontier basins and 38 discoveries in Rajasthan.³⁸ The Mangala field in Rajasthan is the largest onshore oil discovery in India. Mangala along with Aishwariya fields together has over 1 billion barrels of oil recovery.

F. British Petroleum

British Petroleum in 2011 bought 30% stake in the KG D6 basin joint venture for a whopping \$7.2 billion dollars. British Petroleum however has been working with Reliance since 2008 on a deepwater block in Krishna Godavari basin co-owned by them.³⁹ Ambani in relation to this once told a newspaper, “These guys are the best (in exploration). If you want to climb Mount Everest, make sure you have the best Sherpa with you.”

³⁶ See <http://www.oil-india.com/Profile.aspx>

³⁷ See <http://www.ril.com/OurBusinesses/Exploration.aspx>

³⁸ See <https://www.cairnindia.com/about-us>

³⁹ Naazneen Karmali *Mukesh Ambani's Reliance Industries inks \$7.2 billion deal with BP* (FEB 21, 2011 @ 01:01 PM) available at <http://www.forbes.com/sites/naazneenkarmali/2011/02/21/mukesh-ambans-reliance-industries-inks-7-2-billion-deal-with-bp/#d04325275b09>

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G. Essar Oil Ltd.

A part of the Essar Group, it has stakes in both upstream and downstream sector. The company has a very strong value chain connecting the upstream to downstream sector. The company has blocks with about 1.7 billion barrels of oil reserves. It also owns India's second biggest refinery in Gujarat with a capacity of 20 MMTPA.

H. Shell

Royal Dutch Shell is present in India since a very long time. It has already invested \$US 1 billion in the sector. It has become a major retailer in the country.

I. Niko Resources

Niko was amongst the first companies to have been awarded a block under NELP. It has been investing in India since 1997 and has formed a consortium with Reliance for 6 blocks including the KG D6.

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3. LEGAL FRAMEWORK GOVERNING PRODUCTION SHARING CONTRACTS

Article 297 of the Constitution of India⁴⁰ vests in the Union government the natural resources in the territorial waters and continental shelf. It has given the government the power to legislate on hydrocarbon and mineral resources. In pursuance of this, it has drawn a comprehensive yet ambiguous legal framework covering almost every aspect and facet of the industry. Indian legal framework largely focuses and surrounds itself to three key objectives, energy security, energy access and climate change mitigation. Ironically, the three are in conflict with one another and it becomes difficult to sustain the three objectives. Nonetheless, all laws from the Pre-British era to now have basically focussed on them.

The power in the Union to legislate also comes from Entry 53 of List I of Seventh Schedule of the Constitution.⁴¹ Thus, the power on matters related to development of oil and gas resources, mines, petroleum and petroleum products is largely in the hands of the central government. In exercise of its power under the Constitution, the government has passed several laws and brought in several policies for the development of this industry. The core legislations include Oil Fields (Regulation and Development) Act, 1948, Petroleum and Natural gas Rules, 1959, Petroleum and Natural Gas board Act and Petroleum Act, 1934 etc. The government has also brought several policies for promoting energy security, privatization, promotion of cleaner fuels etc. Like New Economic Licensing Policy, Hydrocarbon vision 2025, CBM policy, Integrated Energy Policy 2006. Moreover, many laws have inculcated provisions related to oil and gas like Income Tax Act, 1961, Environment Act, 1986 etc. In all, India has a plethora of laws to deal with matters related to oil and gas.

The power of the Union to legislate has been upheld in several judgments. In Babubhai case⁴², The High Court of Gujarat made some critical observations that due to the strategic importance of minerals and oilfields, it is important the rights over these are vested with the centre. Moreover, since these are not uniformly distributed amongst states there is a possibility of unequal distribution in case power is vested in the states. It discussed the scope of Entry 53, List 1 and explained that oil and gas

⁴⁰ India Const. art. 297

⁴¹ India Const. Sc.7 List I Entry 53

⁴² Babubhai Jashbhai Patel & Ors. v. Union of India & Ors. Special Civil application No. 2912 of 1982.

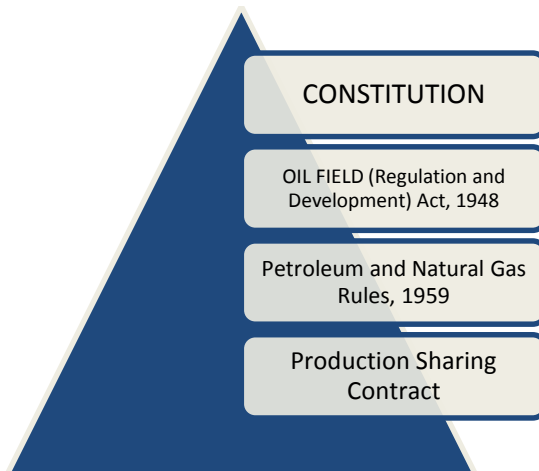
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reserves are national assets and the entire nation should have an equitable stake in it. Moreover, Entry 42 of List III (seventh schedule) gives power to the union to take property belonging to a state in national interest.

The Ministry of Petroleum and Natural gas governs the oil and gas sector and is responsible for framing the policies and legal framework. Under the MOPNG, the Director general of Hydrocarbons is the main administrator for upstream sector while the PNGRB board is for downstream.

Together the acts, rules, policies, regulatory bodies constitute the substantive and procedural law to be followed while dealing in oil and gas resources, in exploration , production, transportation, import, export, refining and all activities related thereto.

The legal framework has been discussed in detail further in the chapter however the chapter focuses only on the upstream sector.



3.1 Constitutional framework

A Constitution is the grundnorm or the basic norm of any nation. It is the norm or theory upon which the legal system of the entire nation is found. The Indian Constitution too lays down the basic principles which govern the country and also the structure of the government. The Preamble of the Constitution states that India shall be a democratic, socialist, republic and sovereign nation.⁴³ It also guarantees liberty, equality and fraternity. The Constitution also lays down the fundamental rights

⁴³ India Const. Preamble

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guaranteed to every citizen which cannot be infringed by the government. These principles and rights laid down by the Constitution lay the foundation of our country and the laws therein and cannot be deviated from under any circumstance unless prescribed by the Constitution itself.

The root of the oil and gas sector can also be traced to the Constitution. By virtue of its Article 297, Petroleum in its natural state in territorial waters and continental shelves is vested with the Union government. The seventh schedule in its List I Entry 53 gives the legislative authority to the Union to make laws relating to oilfields and mineral resources and petroleum and petroleum products. List II Entry 25 gives state the power to legislate on gas and gas works.

The power of the Union to legislate has been held and discussed in the case of *Association of Natural gas and Ors. v Union of India*⁴⁴. The Gujarat government has passed the Gujarat gas (Regulation of transmission, supply and distribution) Act, 2001 for the regulation of transportation, supply and distribution of gas and established the Gujarat Gas Regulatory Authority to deal with matters connected thereto. The term gas was defined in the Act⁴⁵ to mean a matter in gaseous state predominantly consisting of methane. This act was passed under the authority given to state governments under Entry 25 List II of the Seventh Schedule. Already several laws were passed by the Union on this subject exercising authority under Entry 53 List I of the seventh schedule. The legislative competence of the Union to make laws on gas and gas works was challenged before the Gujarat High Court. The court held that in view of Entry 53, only the Union has the exclusive authority to legislate on matters related to gas and gas works. This is so because natural gas is a petroleum product. Under entry 25, the state would only have authority to legislate on manufactured gas used for industrial, medical and other purposes and not on natural gas or Liquefied natural gas. Since gas would include natural gas, an act by state regulating it cannot be passed. The Court used the principle of harmonious construction to explain this. This principle is invoked when there is a conflict of entries between the state and the centre.

3.2. Legislative framework

⁴⁴ (2004) 4 SCC 489

⁴⁵ Gujarat Gas (Regulation of Transmission, Supply and Distribution) Act, 2001 Sec. 2(h)

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3.2.1 Specific Laws

3.2.1.1 Oil Fields (Regulation and Development) Act, 1948

The oil and gas (upstream) sector consists of two basic regulations: Oil Field (Regulation and Development) Act, 1948 and the Petroleum and Natural Gas Rules, 1959. The Oil Field (Regulation and Development) Act, 1948 is the enabling statute which provides for grant of mining leases and licenses for exploration and production of oil and gas.⁴⁶ The act has been laid down for the purposes of regulation of oilfields and development of mineral resources.⁴⁷ Mineral oils are defined under the Act as petroleum and natural gas whereas oilfields has been defined as "any area where any operation for the purpose of obtaining natural gas and petroleum, crude oil, refined oil, partially refined oil and any of the products of petroleum in a liquid or solid state, is to be or is being carried on."⁴⁸The Act states that all mining leases are to be granted in accordance with the Act and any lease in contravention to the act is void and of no effect.⁴⁹ The Act also lays down provisions for levy of royalty and fees on crude oil and natural gas.⁵⁰ It also states that the government may exempt royalties to be paid from offshore production. This is done to encourage exploration in difficult and less accessible frontiers which are high risk investments. Royalty has to be paid by the holder of the mining lease of any mineral oil mines, quarry etc as per the specified rates. Supplementing this are the Petroleum and Natural Gas Rules, 1959 which lay down conditions for the grant of lease and licenses under the Oil Fields Act. These rules are made by the Central government under Sections 5 and 6 of the Oil Fields Act which gives power to the central government to make laws. Under Section 8 and 11 of the Act, the Director General of Hydrocarbons is established for administration and management of resources. The powers of the Central government are delegated to the DGH.

3.2.1.2 Petroleum and Natural Gas Rules, 1959

As mentioned above, the rules are formed under Section 5 and 6 of the ORDA. The Petroleum and natural gas rules, 1959 lays down framework for grant of license and

⁴⁶ Oil fields (regulation and development) act, 1948 Section 4.

⁴⁷ *Id* at Preamble.

⁴⁸ *Supra* note 46 at S. 3(c) and (d)

⁴⁹ *Supra* note 46 at S. 4

⁵⁰ *Supra* note 46. at S.6A

Production Sharing Contract: An analysis

lease and the condition therein along with the payments and taxes that are to be paid. These rules provide for two type of rights: a) Petroleum exploration license and b) Petroleum Mining lease. Lease and license for onland basins are granted by the state government and the royalties are paid to the state government for the same. This grant is subject to approval of the Central Government. On the other hand, offshore blocks are under the power of the central government. The Central government grants lease or license and collects royalties for the same. The license or lease is granted for a specific period of time on payment of the prescribed fees and in accordance with the Act and the rules. License is granted for exploration and discovery and when discovery is made then it becomes a lease. The lease gives the holder the exclusive right to exploit the resources in their mining area over a period of time and subject to payments and rules provided in the Rules. Ordinarily, the term of lease is 20 years and area is 250 square km however this can be modified by the government.⁵¹ For license, it shall be granted for four years and can be further extended upto another one year unless specified otherwise by the government.⁵²The contractors have to make four types of payments:

✚ Initial license or lease fee:⁵³

- (i) Rs. 1,00,000 for license
- (ii) Rs. 2,00, 000 for lease

✚ Security deposit:

- (i) Rs. 4,00,000 for license
- (ii) The licensee shall also pay a yearly advance for each square kilometre:
 - a) Rs. 200 for the first year of license
 - b) Rs. 400 for the second year of license
 - c) Rs.2000 for the third year of license
 - d) Rs.2800 for the fourth year of license
 - e) Rs. 4000 for the fifth year of license

✚ Mining lease fees/rent⁵⁴

- (i) Security for observance of conditions - Rs. 8,00,000
- (ii) Preliminary expenses - Rs. 1,20,000

⁵¹ Petroleum and Natural Gas Rules, 1959 R. 12

⁵² *Id.* at Rule 10

⁵³ *Supra* note 51 at Rule 6

⁵⁴ *Supra* note 51 at Rule 13

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(iii) Fixed dead rent after grant of lease - Rs. 25 for first 100 sq. km and Rs. 50 for every additional hectare.

(iv) surface rent for area used

✚ Royalties

✚ Re-survey - Rs. 10,000 imposed by the state government.

The licensee and the lessee shall have the following rights⁵⁵:

✚ Exclusive right to carry out geological and geophysical surveys, drilling and test drilling operations in the area

✚ Exclusive right to conduct mining operations for petroleum and natural gas and right of construction and maintenance of railways, roads, tram ways, telephones, electric facilities, pumping stations, tanks, reservoirs etc.

✚ Right of assignment or transfer of right, title and interest in the license or lease with prior approval of the Central government.⁵⁶

✚ For adequate reasons, conditions of license or lease can be suspended on terms and conditions laid by the appropriate government.⁵⁷

Obligations under the Act:

✚ Maintain in good conditions all equipments, wells, appliances used in petroleum operations.⁵⁸

✚ Follow proper and workman like manner along with international and modern standards of operations.

✚ Upon determination of lease or license it shall furnish to the government all relevant data like maps, sections and structures, survey data, contour maps, gravity measurements etc.

✚ Directions can be given to prevent waste.⁵⁹

✚ The government may shut down well if it is not kept in proper condition and operated in contravention to the covenants like if it is to prevent leakages, pollution etc.⁶⁰

⁵⁵ *Supra* note 51 at Rule 7

⁵⁶ *Supra* note 51 at Rule 17

⁵⁷ *Supra* note 51 at Rule 20

⁵⁸ *Supra* note 51 at Rule 19

⁵⁹ *Supra* note 51 at Rule 25

⁶⁰ *Supra* note 51 at Rule 31

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✚ The lease and license can be cancelled on the following ground:⁶¹

- (i) fails to fulfil or contravenes terms, covenants and conditions of lease or license
- (ii) contravention of the act, rules
- (iii) fails to use land for bonafide purposes.
- (iv) uses land for any other purpose than what is permitted

The central government will grant time of 60 days to remedy the situation following which it shall forfeit the whole or part of the security and cancel the license or lease. It will also give notice of penalty. The only exception is force majeure.

✚ Penalty can be imposed for assignment without approval, contravention of Rules 14, 19, 21 or prevention of agency under Rule 32 in carrying out its duties.⁶² Punishment can be given upto six month imprisonment and/or fine or Rs.1000.

Under the rules, the right of pre-emption over the refined products have been taken by the government during times of emergency provided a fair market price is to be paid to the lessee.⁶³ The PNG rules also provide for additional terms and conditions as may be imposed by the government through an agreement.⁶⁴ This clause can be inferred to be the source of Production Sharing Contract. The rules also provide for an agency to supervise the operations and give directions and orders which can be inferred to be the DGH.⁶⁵ Under Rule 33, disputes can be submitted to Arbitration under the Arbitration and Conciliation Act, 1996.

3.2.1.3 The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976

The Act has been drafted in pursuance of the Geneva Conventions, 1958⁶⁶ and the United Nations Convention on the Law of the sea, 1982.⁶⁷ This Act gives the central government exclusive right to explore and exploit resources in the continental shelf and exclusive economic zone and the right to control and manage the resources

⁶¹ *Supra* note 51 at Rule 21

⁶² *Supra* note 51 at Rule 32A

⁶³ *Supra* note 51 at Rule 18

⁶⁴ *Supra* note 51 at Rule 8

⁶⁵ *Supra* note 51 at Rule 32

⁶⁶ Geneva Convention on territorial waters and Continental Shelf April 1958 (516 U.N.T.S.205)

⁶⁷ United Nations Convention on the Law of the sea Dec. 10 1982 1833 UNTS 3

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therein.⁶⁸ The sovereign right of India extends upto its territorial waters i.e., 12 Nautical miles from the baseline to the seabed and the underlying subsoil. It also gives sovereign control over the airspace above the territorial sea. The Union of India has the exclusive right to explore, exploit, conserve and manage natural resources in the Exclusive Economic Zone which extends upto 200 nautical miles including the continental shelf. The Central government may extend the application of Indian Laws to the EEZ and continental shelf. The government can also apply its sanitation and custom laws upto 24 nautical miles which is called the contiguous zone. In pursuance of this, the Income tax Act, 1961 and the Customs Act, 1956 are applied to the Continental shelf and certain coordinates within the zone.

3.2.1.4 Fiscal Legislation

Indian fiscal terms are labeled as best among the world. The terms are based on the recommendations made by the Hydrocarbon Vision 2025. The report recommended the government to put in place a comprehensive policy for deregulation of overseas E&P business and provide internationally competitive fiscal terms to attract major oil and gas companies. The fiscal incentives of the Government in New exploration licensing policy (NELP) are manifestation of recommendations of Hydrocarbon Vision 2025. As owner of the resources the government need to balance the, Twin objectives: (i) Return on assets and (ii) Promoting participation to develop the resources. Oil and gas industry is an asset to the treasury and can benefit the exchequer heavily however the government should maintain a balance between return to exchequer and incentive for investment.

The Indian Income tax Act, 1961 as well the Customs Act, 1952 both applies to petroleum operations. The Petroleum tax Guide, 1999 is a comprehensive document laying down both direct and indirect tax regimes applicable on E & P activities. It specifies matters related to income tax, excise duty, custom duty, cess, royalties, lease and license fees as applicable. It is basically a compilation of several laws in one document. This guide is however applicable only on NELP participants and not otherwise. It states that the PSC contractors, their personnel, sub-contractors, suppliers, service providers will only be subject to Indian laws and they are exempted

⁶⁸ The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976 Section 6 and 7

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under any double taxation avoidance agreement entered into by government of India under Section 90 of the IT Act, 1961.⁶⁹ A brief of the taxes and fiscal benefits applicable to E & P is:

A. Income Tax Act, 1961 -

- ✚ Section 42 of the Income Tax Act, 1961 is a special provision for taxation of exploration and production companies. In the case of Commissioner of Income tax v Enron Oil and gas Ltd⁷⁰, it was held that when the accounting principles of tax is different from Section 42 then the latter will be applied but it will only be applied on PSC operations and if any allowance is not given under PSC then it cannot be claimed under Section 42. Further in Joshi technologies International v Union of India, it was held that the deductions under Section 42 and PSC can only be availed and not any additional deduction based on model PSC or any other law.
- ✚ A 100% deduction is allowed on exploration and drilling costs.⁷¹ The expenditure is aggregated till the commencement of commercial production. Accumulated expenditures are then allowed by commercial production which are permitted to be amortized over a period of 10 years. However, development and productions costs are not deductible and general deductions will only be allowed.
- ✚ In addition to the above, the profits that taxable under direct taxes will be given specific allowances in addition to the allowances and benefits like deductions and exemptions that are already given under the Income Tax Act, 1961.
- ✚ Special deduction is given for costs of site restoration if amount deposited in the designated account. If its deposited in a separate bank or a site restoration account then the deduction is lower.
- ✚ In states, incentives are given in the form of subsidised land cost, relaxation on stamp duty on land lease and sale of land, power tariff related incentives, investment subsidies, backward area subsidies, lower interest rates on loans, special incentives for mega projects.⁷²

⁶⁹ *Supra* note 51 at Rule 4

⁷⁰ 2008 305 ITR 75 (SC)

⁷¹ Income Tax Act, 1961 Section 40A, 40C and 42

⁷² *Supra* note 23

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- ✚ Since, E & P is a risky business therefore all unsuccessful exploration costs can be set off against the gains made out of the contract area where successful discovery has been made and commercial production has commenced. All unsuccessful exploration costs are 100% deductible.
- ✚ Previously, but not anymore, 100% tax holiday was given on profits earned for the first consecutive seven years from the date of commencement of commercial production.⁷³
- ✚ The companies availing deduction have to nonetheless pay Minimum Alternative tax on book profits. The period for MAT credit can be carry forward is 10 years and the rate applicable is 18.5%.
- ✚ Deduction is also allowed on laying down pipelines, distribution networks, storage facilities all if at least one third capacity is available for common carriage basis as prescribed by the PNGRB.⁷⁴
- ✚ Depreciation allowance on capital expenditure as per Section 32 of the Income tax Act, 1961.
- ✚ In terms of Section 10(15) interest on certain loans/debts are also exempt.

G. Royalty is to be paid at the rate of 10% for crude oil and natural gas in offshore areas and 12.5% for crude oil in onshore areas and 10% for natural gas in onshore areas.

B. The government has allowed 100% FDI in exploration and production, transport, refining, LNG re-gasification terminals, marketing of oil and gas, pipelines and marketing of petroleum products. Marketing of transport fuels like petrol, diesel and aviation fuel also is permitted but this is subject to 20 billion rupees investment in refining, E & P, pipelines and terminals. FDI is available through the FIPB route for LNG and pipeline projects.

C. Customs Act -

- ✚ The equipments required for petroleum operations are also exempted from basic custom duty as per the Petroleum tax guide and the Export Promotion Capital Goods Scheme. Capital goods for pre production stage are also exempt. There are three conditions laid to avail this:
 - (i) Listed in Annexure A of the Petroleum tax Guide, 1999
 - (ii) Used for petroleum operations

⁷³ Income Tax Act, 1961 Section 80IB(9)

⁷⁴ Income Tax Act, 1961 Section 35AD

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(iii) Essentiality certificate obtained from the DGH and certificate that no foreign exchange remittance is made on the import is given to the customs officer

- ✚ A 3% transferable duty-free credit entitlement benefit is also given to investors from specified countries and also 4% market benefits. This is done to offset freight costs.

E. Some area based incentives are also given like special economic zones, National Investment and manufacturing zones, North East, Jammu & Kashmir, Uttarakhand and Himachal Pradesh.

F. Zero excise duty and zero cess is applicable on the goods and services used in exploration and production.

H. However there are certain exclusions made under the Guide:

- ✚ Charges payable by industries for petroleum operations under other legislations
- ✚ payments for purchase, lease or rent of land or land rights
- ✚ taxes, fees or charges for specific services rendered on request or for public in general
- ✚ sales tax
- ✚ stamp duty, registration fees, taxes on property, license fees, etc

3.2.1.5. Petroleum and Natural gas (safety in offshore operations) Rules, 2008

These rules are formed under the ORDA⁷⁵ and prescribe for safety standards and measure in offshore operations which are regulated by the Oil Industry Safety Directorate which exercises powers and functions under this act. The Oil Industry Safety Directorate also publishes safety standards for oil related facility operations. The Rules also provide for penalty in case on non compliance or contravention and for non maintenance of information and records. The rules stipulate punishment upto six months with fine of 1,000 rupees or both. These laws also govern abandonment and decommissioning of pipelines and oil and gas facilities and ensure that they are safely done without creating any hazard. The rules stipulate for a detailed decommissioning plan to be submitted before doing so by the licensee or less or the operator to the competent authority. Rule 142(6) states that when a well is abandoned then it has to be ensured that outflow from the well or any sort of leakages do not harm the environment. For this, it provides for putting up barriers to ensure well

⁷⁵ Oil Fields (Regulation and Development) Act, 1948 Section 5 and 6

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integrity after abandonment. Another rule i.e., Rule 148 also provides that wells should be secured before abandonment to ensure their integrity. These rules are complemented by the provisions of PSC on decommissioning and abandonment which shall be dealt in the coming chapters.

3.2.1.6. Oil Industry (Development) Act, 1974

The Act is to constitute and establish Oil Industry Development Board (OIDB). It provides for the development of oil industry and levy of a duty of excise on the production of oil and gas. The Act provides for the appointment and conditions of service of its members. It lays down its functions and powers. The board extends financial and other assistance for the development of oil industry which include making grants, advancement of loans, subscribing share, underwriting stocks of any oil industry concern.

3.2.2 General Laws

3.2.2.1 The Mines Act, 1952

The act provides for health and safety of workers working in a mine. It governs all mines including coal mines, metalliferous mines and oil mines. The Act extends to oilfield and mineral oil including natural gas and petroleum. The Act penalises any contravention and non compliance of the act or any rules and regulations under it with imprisonment upto a term of three months or fine of 1000 rupees or with both.⁷⁶The Act gives the administrative power to the Director General of Mines safety (DGMS) which is under the supervision of the Ministry of Labour and Employment. The DGMS has to conduct inspections, inquiries and investigations to ensure the safety and health of workers in mines and oil fields. It is also to conduct competency tests for appointment to various posts in the mines. It organises conferences and seminars to discuss various aspects of safety and procedure.

3.2.2.2 Environmental laws

Before starting any construction work or preparation work, environmental clearance becomes necessary and an environmental impact assessment needs to be done without which the work cannot be commenced. Under the Environment protection Act,1986 and the rules thereunder, permission has to be taken from the Ministry of

⁷⁶ The Mines Act, 1952 Section 67

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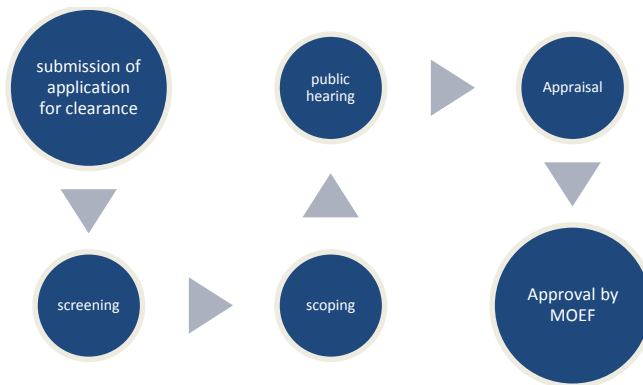
Environment and Forests for clearances except for securing any land for oil related activities. Health, safety and environment is also an important aspect of petroleum operations. Almost all countries, companies and other stakeholders today have a HSE plan laid down. Petroleum industry is a hazardous industry and management, leadership and commitment is requirement for ensuring HSE is maintained. For this, thorough plans have been laid down. All provisions of the Environment Act, 1986 are applicable to oil and gas E & P activities and in this respect they are governed by the MOEF which ensures the implementation of environmental laws in India. The bodies formed under the acts like the Central Pollution Control Board and State Pollution Control board also administer implementation of laws and ensure their compliance.

According to the Environment Impact Assessment (EIA) notification, 2006 (under Section 5(1) of the Environment Protection Act, 1986), it is mandatory to conduct EIA before commencing exploration and production activities. Following which a proposal is submitted to the MOEF giving out the details of drilling activity, co-ordinates of drilling and the EIA report and steps to be taken to prevent environmental harm. This is followed by public hearing.

All projects are categorized into two categories: category A and category B on the basis on the extent of damage they could potentially have on the environment. Mining of minerals on more than 50 hectares of mining area and onshore and offshore oil and gas exploration, development and production are put in Category A. Category A projects and activities require a prior approval and clearance from MOEF on the recommendations of the Expert Appraisal Committee (EAC).

The procedure for getting a clearance is:

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(A) Screening - In this stage, scrutiny of the application of environment clearance is done by the state level EAC.

(B) Scoping - In this, they draft the terms of reference listing out all possible environmental concerns for preparation of EIA.

(C) Public consultation - The matter is referred to the persons in the areas where the project is being started and the ones who are likely to be affected by it .

(D) Appraisal - This is a detailed scrutiny of the application and all documents including public hearing documents, expert committees etc.

On the recommendation of the EAC, the regulatory authority shall convey its decision within forty five days of the receipt of report. In case the authority disagrees then it shall request reconsideration of recommendations of the EAC stating reasons of disagreement. The EAC shall furnish its views within sixty days. The decision of the regulatory authority after this shall be the final one.

When the petroleum operation is being done on a forest land then the rules under Forest (Conservation) Act, 1980 are to be followed. The rules require prior state government and central government approval.

3.2.2.3 Competition law

The Competition Commission of India formed under the Competition Act, 2002 regulates competition in the market and is the watchdog of competition practices in India. The Competition Act replaced of the Monopolies and Restrictive Trade Practices Act as they latter had become inconsistent with the changing times. It investigations into anti competitive agreements, abuse of dominance, cartelization etc. The CCI investigates whether the activities will have adverse effect on competition (AAEC) Section 3 of the act looks into anti competitive agreements like cartels, bid

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rigging, resale price maintenance, exclusive buyer agreements etc. whereas Section 4 defines dominance and what are the factors to determine abuse of dominance. Section 5 and 6 lay down thresholds for mergers, acquisitions and amalgamations. In regards to E & P activities, the CCI can look into any of the three practices mentioned above. For e.g.: it can investigate into merger or acquisition and if it can have adverse effect on the competition.

In downstream, the Petroleum and Natural Gas board Act empowers the regulatory board i.e., the CCI to protect interest of consumers and promote free and fair trade and competition.⁷⁷The Competition Act, 2001 unlike the MRTP is applicable to even state owned enterprises and Public sector undertaking which is clearly manifested in Section 1. Another pertinent case in regard to applicability of competition law to energy sector is the Reliance Industries Ltd. v. Indian Oil Corporation Limited & Ors. In this the CCI examined the applicability of competition law on the state owned enterprises. The companies under question was IOCL, BPCL and HPCL. The informant has alleged that the companies were dominant and behaving like a cartel thus abusing dominance. However, the opposite parties challenged the jurisdiction of the CCI stating that such matters can only be brought before the PNGRB. The Competition Commission unequivocally held that competition act would apply to state owned enterprises and the public sector undertakings and thus the CCI will have jurisdiction to decide the matter. This was upheld in two more cases later.⁷⁸Therefore, now government companies cannot run on monopolies and enjoy dominant positions. The Delhi high court has also upheld this. It said that even though pricing is an exclusive matter to be adjudged before the PNGRB however when it comes to antitrust it is the CCI which will decide. The final decision in this matter is pending as the matter is sub judice before the Supreme Court.

Moreover, what can be seen as a clever move of the lawmakers is that, any unfair activity of the government companies can come under abuse of dominance. This is because national oil companies hold maximum market share in exploration and production, refining, transportation and marketing. This is also important because

⁷⁷ Petroleum and Natural Gas Board Act, 2006 Section 11

⁷⁸ Suo moto case No. 03 of 2013 and Case No. 3 of 2012, Maharashtra State Power Generation Company Ltd. V. Mahanadi Coalfields Ltd.; Re: Fixing of petrol price by public sector Oil Marketing Companies, Suo Moto Case No. 03 of 2013.

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private parties currently are unable to enter these sectors due to heavy subsidies by the government specially in the refinery business. Essar, Shell and Reliance Industries limited ventured into refining and marketing or what we can call petrol pump business however they miserably failed to achieve any success in fact they suffered extreme losses to the extent that they had to be shut down. There is no competitive neutrality between the parties and this prevents retail business to flourish. Thus, abuse of dominance provisions under the competition act gives relief to competitors and consumers to act against the PSUs if they are carrying out unfair trade practices . NOCs also receive huge bailout packages when they suffer loss. This keeps their business afloat despite heavy losses. What happens is then that the NOCS can decrease prices and attract consumers which the private players cannot because they have to keep their company afloat. Thus, there is difficulty in entry in the sector specially downstream not so much in upstream. Despite competition act, companies still enjoy a monopoly status. However, competition act does not penalise dominance but only its abuse. The judgments and the Act itself also emphasizes on an important point that despite having specific legislations, the national oil companies have to comply with general legislations. They cannot flout their liability by stating that general laws will not apply on them.

3.2.2.4 Labour laws

All labour laws equally apply to oil industry as they would apply to any other industry in the country. Some of the labour rights are guaranteed in the Constitution and therefore it becomes necessary to implement them in all industries. There are some oil industry specific laws and there are the other laws which apply in general to all like the maternity benefit act, minimum wages act, factories act, 1948, Mines Act, 1952, The Worker's compensation Act, 1923, Prevention of sexual harassment at workplace act, Child labour (prohibition) act, contract labour act, payment of gratuity act, equal remuneration act and The employees' Provident funds and Miscellaneous Provisions Act, 1952 etc.

3.2.2.5 International law

Certain international legal issues arise when dealing with oil and gas contract. Though there can be a plethora of laws applicable, I shall a few main topics which concern oil and gas contracts

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A. United Nations Convention on the law of the seas

India is a signatory to the United National Convention on Law of the sea and therefore as per the treaty its sovereign authority extended up to 12 nautical miles from the baseline to the seabed and subsoil and also the airspace over such territory. This is called territorial waters. The continental shelf extends upto 200 nautical miles from the territorial waters.⁷⁹ Lastly, the Exclusive Economic Zone including the continental shelf and even though nations do not exercise sovereignty over such regions.⁸⁰ They have the right to explore and exploit resources in these areas, they have the right to explore, exploit, conservation and management of all natural resources found in the EEZ. It has the exclusive jurisdiction to authorize all such operations. The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976 provides for the central government exclusive rights to explore and exploit resources of the continental shelf and exclusive economic zone and the right to control and manage the resources therein.⁸¹

B. World Trade Organisation

India is also a part of the World Trade organisation agreements and thus are also obligated to follow the WTO principles of national treatment, Most favoured nations and all other principles laid down under the General Agreement on Trade and Tariffs, 1994, General Agreement on Trade and Services and Trade related to Intellectual property agreement. Trade in petroleum is subject to world trade law. Therefore, India being a major importer is subject to the laws of WTO and thus have to fulfil its obligations under MFN and national treatment. The WTO has also come out with a report on natural resources.⁸²In the 2010 report, the characteristics of natural resources were identified and petroleum fits in those characteristic.

⁷⁹ United Nations Convention on the Law of the sea Dec. 10 1982 1833 UNTS 3 Art. 76" *The continental shelf of a coastal State comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance.*"

⁸⁰ United Nations Convention on the Law of the sea Dec. 10 1982 1833 UNTS 3 Art. 55

⁸¹ The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976 Section 6 and 7

⁸² WTO, *World Trade Report 2010: Trade in Natural Resources*,
<http://www.wto.org/english/res_e/booksp_e/anrep_e/world_trade_report10_e.pdf>

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However, the domestic market obligation which also exists in India under Article 18 of the PSC is often termed to be against the WTO principles particularly Article XI:1 of the GATT.⁸³ DMO is the allocation of natural resources for the benefit of the country. However, there are certain exceptions to this clause. The exception is that members can take measures to ensure that there is availability of essential domestic supply. This is what Article 18 stipulates. It states that till self-sufficiency is achieved the contractor cannot export. Thus, it falls within the exception. Therefore, DMO is consistent with general exception laid down in Article XX(i) of the GATT⁸⁴.

C. International Investment Law

Moreover, India is also obliged under the international investment treaties including multi lateral treaties like the energy charter agreement and the bilateral investment treaties signed between India and other nations. India has the following obligations under the BIT:

- 1) Protection from expropriation - Expropriation is the taking away of assets of the investor or modifying the property rights of the investor. It is the taking away of the property or physical assets of the investor.⁸⁵ The host government cannot expropriate unless it is in emergency, for public interest and it is compensated for. Yukos Arbitration⁸⁶ was a case in this regard. In this case, the Permanent Court of Arbitration held that the Russia had breached its obligations under the Energy Charter Treaty. Russia had indirectly expropriated the property of Yukos levying taxes, fees, fines and prosecuting the directors of Yukos for misappropriation of funds and tax evasion. Russia had then transferred its asset to its NOC Gazprom.

⁸³General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat, 55 U.N.T.S. 194 " *No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.*"

⁸⁴ General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 " *involving restrictions on exports of domestic materials necessary to ensure essential quantities of such materials to a domestic processing industry during periods when the domestic price of such materials is held below the world price as part of a governmental stabilization plan; Provided that such restrictions shall not operate to increase the exports of or the protection afforded to such domestic industry, and shall not depart from the provisions of this Agreement relating to non-discrimination;*"

⁸⁵ http://unctad.org/en/Docs/unctaddiaeia2011d7_en.pdf

⁸⁶ YUKOS UNIVERSAL LIMITED (ISLE OF MAN) v. THE RUSSIAN FEDERATION PCA Case No. AA 227

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- 2) Fair Taxation - The taxes levied on the investors should be fair and should be the same as levied on any other company functioning in that sector.
- 3) Fair and Equitable treatment - The host government has to provide the same privileges and rights that are given to other investors. The NOCs and IOCs should not be discriminated between. They should provide a fair and transparent regime.
- 4) Full protection and security - The HG should take steps to protect investor from adverse affects of acts of the host governments, its organs and third parties.
- 5) National Treatment - The same customs and policies should apply to investors as are applied to domestic investors.
- 6) Most favoured nation - Investors from different countries should not be discriminated. All investors should get like treatment.
- 7) Arbitration - Investment treaties also provide for arbitration at a neutral forum like the International Chamber of Commerce, Stockholm chamber of commerce and ICSID.

Energy charter Treaty signed in December 1994 is a multi-national investment treaty designed to promote rights in investor, investing in exploration and production activities.⁸⁷

An important case related to investment and oil and gas is the Whites industries case⁸⁸ is relevant in this regard. The case revolves around a BIT between India and Australia. White Industries case had been in a contractual dispute with Coal India Ltd. CIL sought for setting aside the order before Calcutta High Court and White Industries sought enforcement before Delhi High Court. Meanwhile the Calcutta High court set aside the order. White Industries appealed and the matter was pending before the court for a long time. White Industries then took the matter to arbitration saying that the delay in enforcement of arbitration is a violation of FET, MFN and expropriation. However, the tribunal only held MFN violation and awarded it 4 million Australian dollars. This is because a nine years delay in enforcement of award

⁸⁷ Energy Charter Treaty available at <http://www.ena.lt/pdfai/Treaty.pdf>

⁸⁸ White Industries Australia Limited v. The Republic of India, UNCITRAL available at <http://www.italaw.com/cases/documents/1170#sthash.sSWxjmI.dpuf>

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has led to denial of " effective means of asserting of claims and enforcement of rights."

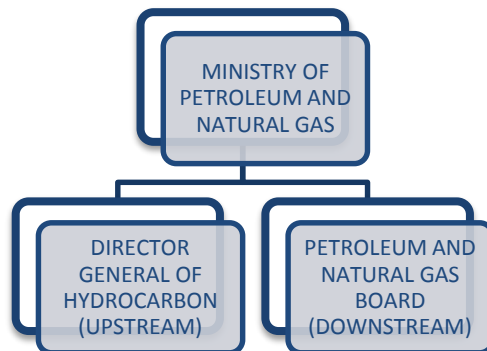
D. Sovereignty over natural resources

The Convention on Sovereignty over natural resources declares that the people and nations shall have right over their natural resources and that they shall use it for their own benefit.⁸⁹ Any exploration and production shall have to be done in accordance with the rules made by the host government and their permission has to be taken for the same.⁹⁰ Article 3 states that the profits derived should be divided between the investor and the government on a reasonable basis. Expropriation and nationalisation can be done on grounds of national interest and public interest.⁹¹

3.3 Regulatory Framework

3.3.1 Regulatory bodies

3.3.1.1 Ministry of Petroleum and Natural gas



Ministry of Petroleum and Natural gas is the apex body and the regulator of oil and gas in India. The ministry controls the grant of lease and license for exploration and production and rest of the downstream sector. It also brings out policies, laws and implementation of five year plans. It also oversees the conservation of natural resources, pricing policies, import and export. It has under its control 8 statutory bodies and 14 PSUs including the ONGC, OIL, HPCL, IOCL etc. It also aims at introducing clean fuels and unconventional sources like bio fuels, shale and CBM. It overlooks at the discovery and geological surveys. The economics division of the

⁸⁹ Permanent sovereignty over natural resources, Dec. 14, 1962, 17 UN – GAOR, Supp. No. 17 art 1

⁹⁰ Permanent sovereignty over natural resources, Dec. 14, 1962, 17 UN – GAOR, Supp. No. 17art 2

⁹¹ Permanent sovereignty over natural resources, Dec. 14, 1962, 17 UN – GAOR, Supp. No. 17art 4

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ministry maintains all statistics and data related to production, import and export of oil and gas. The Central Statistics Office under Ministry of Statistics and Programme also brings out a report called Energy Statistics which contains data available on energy production and use. It gives out a brief analysis on the reserves, demand, production, discoveries made, refining capacity, installed capacity, import, export, consumption and prices for different commodities.

3.3.2 Director General of Hydrocarbons

The Director General of Hydrocarbons (DGH) is the regulator of upstream sector in India. The DGH was established in 1993 under the Ministry of Petroleum and Natural gas. This authority is created under Section 8 of the Oil Fields Act which authorizes the Central government to delegate its work and power as exercisable under the act to an authority or an officer.⁹² Thus, the DGH has been created to exercise the power of the MOPNG under the Oil Fields Act. The DGH is under the duty to perform the function of the central government and promote sound administration of hydrocarbon resources keeping in view environmental safety, technological and economic aspects.⁹³ It also engages in unexploited energy sources like coal bed methane and shale gas. It has also been entrusted to implement efficiently and effectively the New Exploration Licensing Policy, Production Sharing Contract and investments in the sector. The DGH has been granted powers under three laws, the Oil Fields Act⁹⁴, PNG rules and MOPNG notification dated 01.09.2006⁹⁵.

Under the notification the DGH has been given the power to also regulate coal bed methane and gas hydrates along with petroleum operations.⁹⁶ It has been given the power to supervise and monitor exploration and development programmes of commercial discoveries found and ensure optimum recovery of the resources in accordance with international petroleum industry practices.⁹⁷ It is also to monitor oil and gas production and ensure payment of royalty and other statutory charges

⁹² Section 8. The Central Government may, by notification in the Official Gazette, direct that any power exercisable under this Act shall be exercised, subject to such conditions, if any, as may be specified therein by such officer or authority as may be specified in the direction.

⁹³ MOPNG notification 1st September 2006

⁹⁴ Oil Fields (Development and Regulation) Act, 1948 S. 11

⁹⁵ *Supra* note 93

⁹⁶ *Supra* note 93 at Clause (i)

⁹⁷ *Supra* note 93 at clause (ii)

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provided for in various acts and rules. It is also under the duty to collect geo-scientific data, reports and information from the licensee/lessee and also store the samples and data pertaining to petroleum activities.⁹⁸ It has also been given the power to lay down norms for announcement of discoveries made by the licensee/lessee.⁹⁹

They key regulators who assist the Ministry of Petroleum and natural gas are:

✚ Planning Commission

It is the nodal policy making body which formulates long term sector specific policies. For the oil and gas sector, it devices policies on investment, environment, infrastructure like energy policy, working groups etc.

✚ Empowered Group of ministers

It takes decision on pricing and other industry issues like investment and economy related matters.

✚ Ministry of law

It advises on legal issues like policy framework, legislations etc.

✚ Ministry of Finance

Like the MOL, it advises on fiscal matters and tax policies.

✚ Petroleum and Natural Gas Board

It regulates the downstream sector which includes transportation, refining, processing, storage, sale and marketing. However, PNGRB currently is focussing on transportation only. It ensures uninterrupted and adequate supply of petroleum, petroleum products and natural gas all over the country. It protects the interest of both consumers and suppliers.

✚ Ministry of Environment and Forest

The MOEF involves itself in giving environmental clearance, the EIA reports are submitted to the MOEF for the clearances. When the matter related to forest area, sensitive biosphere and other such areas then the MOEF's approval is taken. It also advises on abandonment plan and site restoration.

✚ The Petroleum Planning and Analysis Cell (PPAC) - This body was created in 2002 and works towards enhancing the institutional capacity of oil and gas data management and analysis. It determines gas prices and petroleum prices and reviews them regularly. It analyses the general trends in the market related to

⁹⁸ *Supra* note 93 at Clause (iii)

⁹⁹ *Supra* note 93 at Clause (vi)

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import and exports, prices and other petroleum standards. It administers the subsidies on kerosene and LPG.

Policies governing Production sharing contract and upstream sector:

✚ The New Exploration and Licensing Policy, 1997 - This policy allowed private and foreign investors for the first time to invest in E & P in India to meet the ever growing energy demands of the country.¹⁰⁰ It was introduced to increase investments in the sector along with technology. NELP benefitted India in bringing new state of the art facilities, new management practices and geological advancements. It provides for a framework award licenses to investors for exploration and production. It provides for the auction mechanism, fiscal regime and governance in general. The first NELP round came in 1999 and since there have been 9 rounds of bidding with 254 blocks being allocated.¹⁰¹ The blocks are no more allotted in a joint venture with the NOC rather the NOCs have to compete with the IOCs and OCs through a competitive bidding process to get the Petroleum Exploration Licenses.

Some of the salient features are:¹⁰²

- 100% FDI
- No requirement for joint ventures with NOCs but private investors can independently participate in bidding process.
- International competitive bidding
- Equitable benefits to private companies and NOCs (same fiscal and contractual terms)
- Obligation to investors to sell output in domestic market before exporting
- Royalty at the rate of 12.5% for onland shores and 10% for offshore.
- Royalty to be half for deep water areas beyond 400 m bathymetry for the first seven years after commencement of production
- Model contract will be proposed by the government
- Contract to be governed by Indian Laws
- Cess and excise duty to be exempt

¹⁰⁰ Price Water Cooper *India Country Insights* available at <https://www.pwc.in/assets/pdfs/industries/oil-and-gas/publications/india-country-insights.pdf> (last accessed on 12th March 2016)

¹⁰¹ *Supra* note 28

¹⁰² *ibid*










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- Companies exempt from paying custom duty for import of goods used in petroleum operations
- No bonus on signature, discovery and production.

The Hydrocarbon Exploration and Licensing Policy

Hydrocarbon Exploration and Licensing Policy is the newest policy on the block which came out on 10th March 2016.¹⁰³It comes in the light of the government's new agenda of "minimum government and maximum governance."This Policy aims mainly at introducing the revenue sharing contract to replace the earlier production sharing contract.

The policy aims at the following objectives:

-  Energy security by increasing oil and gas production through investments in exploration and production business.
-  Generate employment in the sector
-  Reducing red tapism, enhancing transparency and decreasing role of executive discretion and bureaucratic role
-  Promotion of uniform license for conventional and unconventional source of energy like CBM, shale, gas hydrates etc. This is based on the open acreage policy
-  Replacement of production sharing contract with revenue sharing model and thus removing cost recovery and pre tax investment multiple (PTIM)
-  Ease of doing business which is Prime Minister Modi's brain child. Since the previous contracts were based on cost recovery, contractors tried to inflate costs and reduce the government share in profits. Moreover, the complex procedure led to several delays and disputes. In the nw regime, the contractor will bid for the revenue he will share and thus excessive scrutiny would not be required and moreover this will prevent any form of misappropriation of funds.
-  Lower royalty rates. The rates decrease from shallow to deepwater to ultra deep water. However, in order not to affect state taxes, the royalties for the onland shore is the same
-  Cess and import duty not applicable
-  Marketing freedom for natural gas and crude.

¹⁰³Government of India *Hydrocarbon Exploration Policy* available at <http://pib.nic.in/newsite/PrintRelease.aspx?relid=137638>

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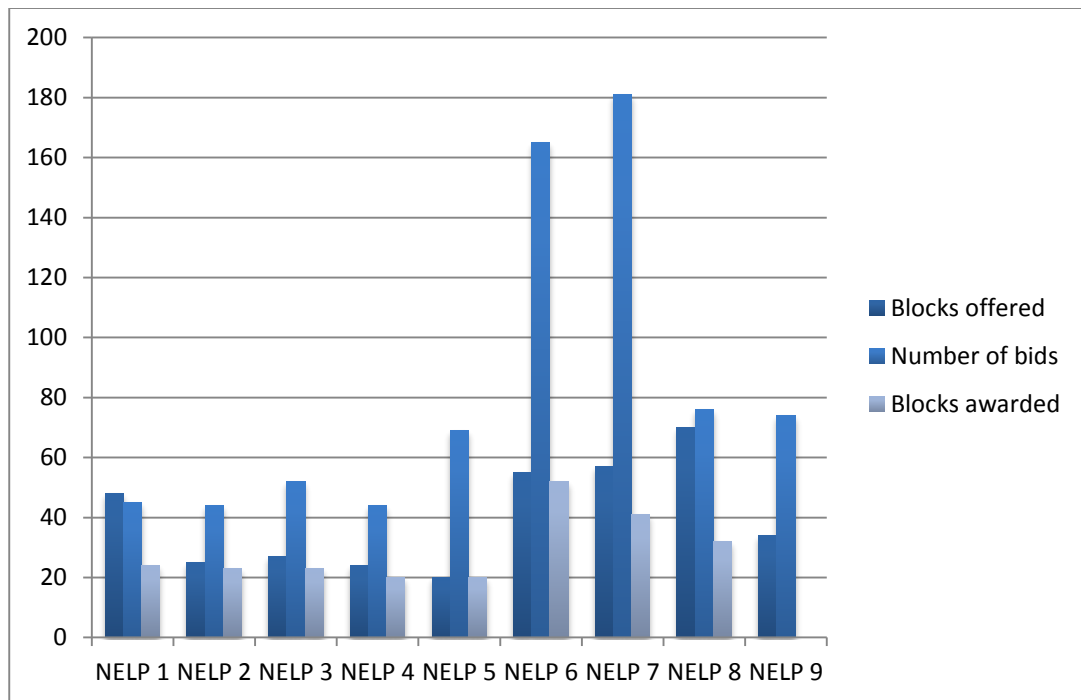


Figure 9.0 NELP Rounds participation (Source: Price Water Cooper *India Country Insights*)

| NELP I | NELP II | NELP III | NELP IV | NELP V | NELP VI | NELP VII | NELP VIII | NELP IX |
|-------------------|---------|----------------------------|----------------|-----------------------------------|---------------------------|---|---------------------------|-----------------------------------|
| Cairn | Hardy | Geo global resources | No entrants | ENI | British gas, Newbury | British Petroleum, Bengal Energy | No foreign investments | East West petroleum company |
| Niko resources | | | | Canoro resources | Petrogas, Santos | BHP | | |
| Gazprom Russia | | | | Geo Petrol | Hallworthy, Silverware | Noble | | |
| Mosbacher | | | | Birk Beck Investors Ltd. | Naftogaz, Suntera | Mittal, Quest petroleum | | |

Table 2.0 Foreign entrants in NELP ROUNDS (Source: Price Water Cooper *India Country Insights*)

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- ✚ Industrial Policy Resolution, 1956 - After independence, the government wanted to retain all major industries which has been in the hands of foreign players and were exploited for their benefit. One of these industries was the oil and gas industry. Under this policy, the Oil and Natural gas commission (now corporation) and Indian oil company limited was formed for the upstream and downstream sector respectively.
- ✚ The Integrated Energy Policy, 2006 - It deals with challenges faced by Indian Energy sector and how to tackle them. This policy also focuses on bringing clean, safe and environmental friendly fuel keeping in mind the economic viability and technical efficiency at the least possible cost.
- ✚ National Biofuel Policy, 2009 - this proposes to provide incentives for biofuel to promote cleaner energy. The policy gives 12.36% concession of excise tax on bio ethanol and excise duty exemption for bio fuel.
- ✚ The Coal bed Methane Policy, 1997 - This policy was brought out by the MOPNG along with the Ministry of Coal for exploration of the unconventional coal bed methane. The blocks are indentified by the Ministry of coal and allotted by the MOPNG. It aims to offer coal rich blocks for exploitation of methane which is considered an eco-friendly source of energy. The Policy also follows international competitive bidding like the NELP. In terms of no government stake, production linked payments also it follows NELP. The CBM also pushes investment because it gives attractive fiscal and contractual terms and also a transparent and fair bidding system. The first bidding round of coal bed methane done in 2007 and 30 blocks have been awarded since them. However, CBM remains a largely unexploited resource.¹⁰⁴ Many contractors are not very happy with the terms and conditions of the contract which remains the biggest reason for signing of only 3 contracts. The contract is divided into four phases: Exploration (3 years), Pilot Assessment and market surveys and commitments (5 years), development phase and production phase (25 years). The Contractor can walk out after the end of the first two phases. The commerciality of the blocks is also based on the sole decision of the contractor.
- ✚ The Shale gas policy, 2013 - With the aim of tapping this unconventional resource and achieving the American Shale success, government first came out with Draft

¹⁰⁴ *Supra* note 100

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Shale policy in 2012. The policy permits ONGC and OIL to explore shale resources from onland blocks allotted to them on nomination basis before NELP through the Petroleum Exploration license or Mining lease. The royalties and charges will be the same as applied to conventional resources and they will be given three assessment years with the maximum three years for each. However, no significant work has commenced due to lack of resources like requisite amount of land and fresh water. The policy also aims to start bidding process for private investment in the near future though the prospects seem dim.

- ✚ The Auto Fuel Policy, 2003 - It provides a blueprint on various emission norms and fuel quality up gradation required to control vehicular pollution.
- ✚ Natural gas Pipeline policy - promote competition
- ✚ Indian Hydrocarbon Vision, 2025 - It was brought out in 2001 and lays down the long term vision for this sector. It aims at achieving self-sufficiency, promote competition and free market. It encourages private investment but focuses on increasing efficiency, operational flexibility and autonomy of PSUs. It lays down framework for 25 years and focuses largely on energy security, use of clean fuels and fuels that are economically viable and also green.

Gas pricing in India

Gas pricing in India has been a subject of controversy and dispute. It has created some major conflicts in the country including the NTPC-Reliance dispute, Reliance and government India Dispute and the Ambani brothers conflict etc. Gas pricing in India can be divided into three phases: administered price mechanism, discovered fields both of which are pre-NELP and lastly the NELP pricing. The other type of gas price is contract or spot pricing which cannot be called a phase but is a mode to determine prices and will be discussed further. Under the Administered price mechanism for nomination blocks to the national oil companies, the prices are fixed by the government however this was discontinued in 2002. The APM pricing was based on the cost of operating capital plus formula. Post APM, the companies were allowed to set prices for fuels but kerosene, gasoline and LPG remained regulated. The government announced de regulation of diesel in phases in 2010 however it remained regulated in 2013.

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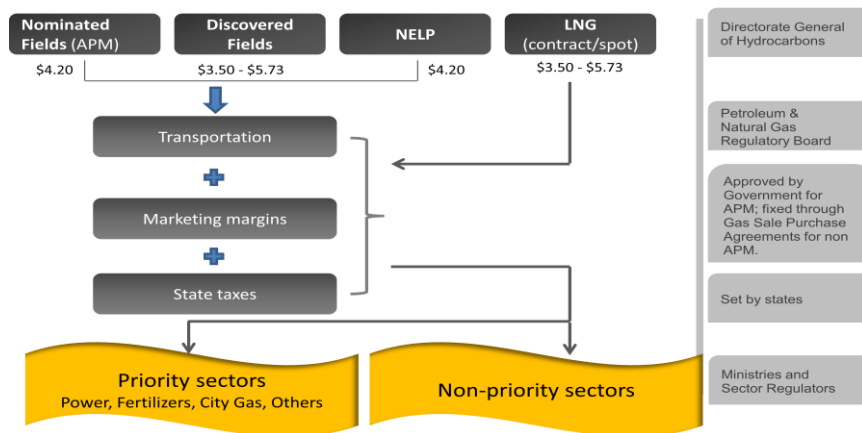


Figure 10.0 Gas pricing structure prior to April 2014 (*Source: Rangarajan Committee report*)

There were three pricing mechanism in India:

a) Administered Pricing Mechanism (APM) -

The price under this decided by the government and it is applicable only on nominated blocks. It is calculated on cost plus basis. The current price for APM is \$4.2 per mmbtu and for north east there is a discount of 40% on the APM price. The companies are heavily subsidised so as to enable them to supply has at lower rates. Nomination was then replaced by discovered fields. The prices were determined by the agreement between the companies and the government and linked to average fuel prices over the past 12 months. The fields under this regime are Panna Mukti and Ravva Fields.

b) Non-APM - As for non-APM different prices exist for LNG and domestically produced gas from pre-NELP and NELP fields. NELP liberalised the market and so was the fiscal regime liberalised. The prices were dependant on the provisions of the production sharing contract. The prices are determined by arms length pricing as stipulated in the PSC¹⁰⁵. However, these prices have to be approved by the government. The prices have to be decided according to the gas utilization policy. It is based on price discovery in which buyers are asked to quote a price and then the price

¹⁰⁵ Production Sharing Contract Article 1.8

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is determined according to the arms length principle or as it can be called market based. The first instance of price determination has been by Reliance for gas produced in KG D6. It was based on this formula:

$SP = \$2.5 + (CP-25)^{0.15} + C$, wherein SP was selling price, CO was price of brent crude, \$2.5 was the base price.

c) Spot pricing - These prices are for LNG and began in 2004. They are prices which are determined by contract for eg: RasGas Qatar agreed to supply 5mmpta gas at the contracted price of \$2.35/mmbtu

After the KG D6 controversy, the Oil Ministry has been constantly taking steps to revive production by bringing in simpler rules specially related to gas pricing. The whole controversy had arisen due to the gas pricing and since then companies like BP, Reliance and even ONGC has been seeking price freedom that make investment viable. The Modi government brought the new Domestic Gas pricing guidelines in April 2014.¹⁰⁶ The government as a follow up to Make In India program is introducing policies with the aim of ease of doing business.

The well head price¹⁰⁷ shall be determined as follows: (the unit will be \$ per MMBTU)

$$\text{Price} = \frac{V_{HH}P_{HH} + V_{AC}P_{AC} + V_{NBP}P_{NBP} + V_R P_R}{V_{HH} + V_{AC} + V_{NBP} + V_R}$$

Where:

- i. V_{HH} = Total annual volume of natural gas consumed in USA and Mexico
- ii. V_{AC} = Total annual volume of natural gas consumed in Canada
- iii. V_{NBP} = Total annual volume of natural gas consumed in European Union and Soviet Union except Russia.
- iv. V_R = Total annual volume of natural gas consumed in Russia
- v. HH = Henry Hub
- vi. R= Russia
- vii. AC = Alberta Canada

¹⁰⁶ Government of India *New Natural Gas Pricing Guidelines* available at <http://www.petroleum.nic.in/docs/NewNaturalGasPricingGuidelines.pdf>

¹⁰⁷ Well head prices is the price of gas received by the producer of gas described in [:\(http://www.petroleum.nic.in/docs/NewNaturalGasPricingGuidelines.pdf\)](http://www.petroleum.nic.in/docs/NewNaturalGasPricingGuidelines.pdf)

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- viii. NBP = National balancing point
- ix. PHH = annual average of daily prices at Henry Hub minus transportation and treatment charges
- x. PNBP = annual average of daily prices at National Balancing Point minus transportation and treatment charges
- xi. PR = annual average of monthly prices at Russia minus transportation and treatment charges
- xii. PAC = annual average of monthly prices at Alberta Hub minus transportation and treatment charges
- xiii. Transportation and treatment charges = US \$ 0.50/MMBTU subtracted from each of the four prices

These prices are to be uniformly applied to all sectors. The prices were applied prospectively and came into force in November 2014. They were made applicable to CBM blocks as well. However, the prices that were prevailing under contracts were made applicable till the contract period after which the new prices would apply. Two special provisions have been given in the guidelines. The Ultra deep, deep water and high pressure temperature areas would get a premium on the prices. Also, the North Eastern region would get 40% subsidy.

As a result of this new pricing formula the price has increase to \$5.61 MMBTU in contrast to the earlier \$4.2 MMBTU. However, this price applied to all producers except Reliance whose price shall be determined by the arbitration tribunal for which the earlier \$4.2 per MMBTU would apply. The price difference between the two prices would be credited to an account maintained by GAIL which shall be paid or not paid depending on the award of the arbitration. The pricing formula has dropped the earlier Japan LNG and Indian import netback pricing markers in this new formula. The prices are revised every 6 months and notified by the Director General of Petroleum Planning and Analysis Cell. It's calculated on 12 month trailing data with a lag of one quarter. The rates dropped to \$5.05 per MMBTU in April 2015 and they further fell to \$4.24 per MMBTU in October.

IV. CONTRACTUAL FRAMEWORK

For achieving energy security and self-sufficiency, it is important that a country has an efficient and effective mechanism for exploration and production of energy resources. With this very purpose in mind, the Production sharing contract was introduced in India after the liberalization of economy. In Production Sharing contract the state is the owner of the resources who engages a private contractor for exploration and development activities. The risk is borne by the contractor who is at the risk of losing investment in absence of any commercial discover. On the other hand, if there is a discovery made then the contractor is entitled to profit oil and cost oil.¹⁰⁸ The Production Sharing Contract as compared to Concession Agreement is that the ownership of the natural resources lies with the contractor. This ambitious policy was expected to revolutionize the energy sector, however, over the years the failures of PSC have often overshadowed the sparse achievements that it has had.¹⁰⁹ Other than introducing foreign investments, the PSC has not done much and the KG-D6 basin controversy finally put a stamp on its ineffectiveness. With the struggling India economy, the stifling growth of the oil and gas sector and the ever increasing rise in oil prices, it is important to revise the existing policy and laws and revive this industry. Thus, the very purpose of this chapter and the chapters coming further is to analyse the production sharing contract and its related aspects and to discuss its failures and successes with the aim to suggesting improvements in the existing regime.

Business Model

The Production sharing model has been discussed in detail in Chapter II. In a Production Sharing Contract, the risk of investment is 100% upon the contractor and the reward of E & P is shared between the government and the contractor as the name suggests. The government is the owner of the mineral resources in the nation and it enters into an agreement with a private company or a foreign oil company for

¹⁰⁸ Rajkumar Narayan *Production Sharing Contract for Exploitation of Hydrocarbon resources* ELR (2014, Vol.2 Part 2)

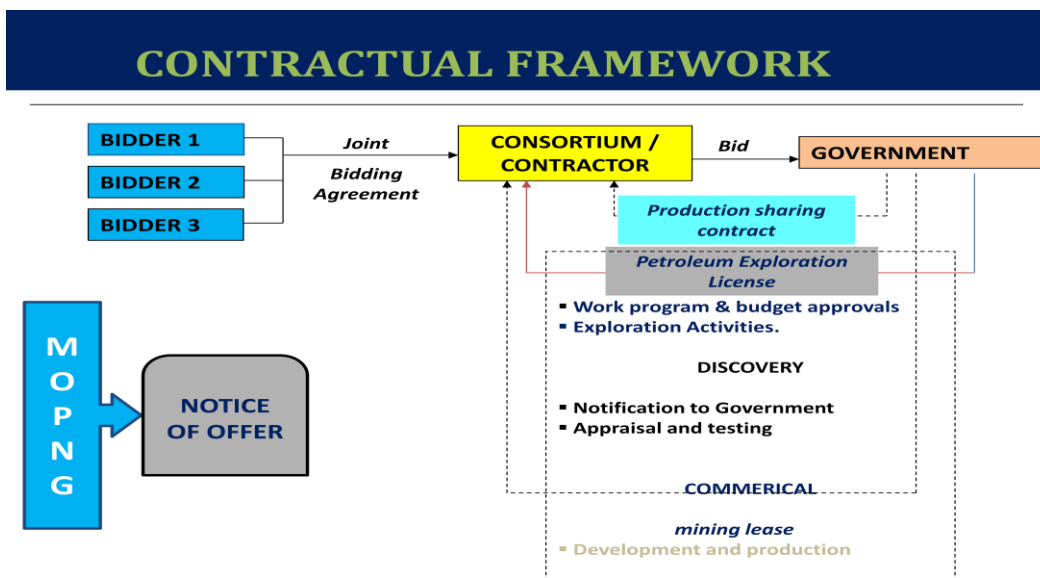
¹⁰⁹ Divjyot Singh *The Indian Upstream sector & Gas industry: Towards Brighter future* UPES L. REV. (September 2014, Vol. 1 No.2)

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exploration and production and to provide technical and financial services. Here the sole risk is upon the contractor. The government does not invest anything at all and as a result he is allowed to recover his cost along with a share in the profit. However, there is a twist in the tale. The contractor bears the sole risk indicates that if there is no commercial discovery then it loses all its money. But if there is a commercial discovery, then the contractor will get cost recovery as well as its profit. Since, government owns the resources it takes a small amount of royalty and also has a supervisory role. It is important to note that the title and ownership of resources will lie with the government and the contractor shall not hold title to the petroleum till it reaches the delivery point.

In short, the business model is PSC is that the investor invests and takes the sole risk and the government is merely a supervisor who ensures level playing field among all stakeholders, ensures optimal utilization of resources and environmental protection. In the end, either the contractor loses everything or if a discovery is made takes his share and gives the government its share.

PSC in India



2

Figure 11.0: Contractual Framework of Production Sharing Contract in India

Before we delve into the technicalities of the contract, let us discuss the authority or the source of Production sharing contract. As discussed earlier, Article 297 of the Constitution of India vests in the Union petroleum in its natural state found in the

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territorial waters and the continental shelf. In pursuance of this power, the government came out with ORDA, 1948 and PNG rules, 1959 under the Act. The Act and the rules make provisions for grant of lease and license for exploration and production activities. Under Rule 5 of the PNG rules, 1959, provides for an "agreement between the Government and the Licensee or Lessee containing additional terms and conditions with respect to the License or Lease". Thus, Production sharing contract is a manifestation of this Rule. In the case of *RIL v RNRL & ors*,¹¹⁰ it was held that the resources vests with the government and the contractor does not own them but hold it in trust for the government. Therefore, the government has monitor and fix the prices for the gas if it is in interest of the country. It is based on the doctrine of public trust.

After the government has identified the blocks for exploration and production, it invites bids through a notice of offer. The Ministry of Petroleum and Natural gas does a road show at all important places where oil and gas companies are registered for e.g., Mumbai, Dubai, Houston, Pennsylvania etc.

Under the NELP, all contractors are at equal footing without any discrimination between a private company and a national oil company. Thus, all companies are judged on the same parameters for allotment of blocks for exploration and production. The blocks are awarded on International Competitive Bidding process. The DGH comes out with a bidding evaluation criteria (BEC) where companies are scored out of 100. The main parameters are:¹¹¹

1. Minimum work programme - In addition to the mandatory work programme, the contractor undertakes minimum work programme like addition seismic surveys, geophysical surveys etc. Only Minimum work programme will be considered and not mandatory work programme or any other contingent programme. This has to be completed within four years along with mandatory work programme.¹¹²
2. Fiscal package
3. Technical capabilities

¹¹⁰ (2010) 7 SCC 1

¹¹¹Ministry of Petroleum and Natural Gas *Notice inviting offer and format for bidding* available at [http://www.dghindia.org/pdf/NOTICE%20INVITING%20OFFERS%20\(NIO\),%20BID%20FORMAT%20&%20PRICE%20LIST%20OF%20INFORMATION%20DOCKETS%20AND%20DATA%20PACKAGES.pdf](http://www.dghindia.org/pdf/NOTICE%20INVITING%20OFFERS%20(NIO),%20BID%20FORMAT%20&%20PRICE%20LIST%20OF%20INFORMATION%20DOCKETS%20AND%20DATA%20PACKAGES.pdf)

¹¹² Ministry of Petroleum and Natural Gas *Blocks Awarded for Exploration & production* available at <http://www.petroleum.nic.in/docs/awardprocess.pdf>

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| Blocks | Conditions |
|--|---|
| Onland and shallow water blocks | <p>MINIMUM WORK PROGRAMME</p> <p>The contractor has to commit one exploratory well per year for retaining the block for seven years. Failure of which would result to relinquishment of entire area except the development and discovery area.</p> |
| | <p>TECHNICAL REQUIREMENT</p> <p>The contractor has to score a non zero on one of the three criteria under this and a non zero on operatorship</p> |
| | <p>FINANCIAL REQUIREMENT</p> <p>The net worth of the company or the consortium should be more than the participating interest value of its bidden minimum work programme and the mandatory work programme</p> |
| Deepwater blocks | <p>MINIMUM WORK PROGRAMME</p> <p>The contractor has to drill at least one exploratory well in 3 years after the initial 4 years failing which the contractor will have to relinquish the entire area except the development and discovery area after the four years.</p> |
| | <p>TECHNICAL REQUIREMENT</p> <p>Will also consider number of years of experience, average accretion of proved reserves, acreage holding, average annual production and drilling of wells.</p> |
| | <p>FINANCIAL REQUIREMENT</p> |

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| | |
|--|---|
| | The net worth of the company or the consortium should be more than the participating interest value of its bidden minimum work programme and the mandatory work programme |
|--|---|

| Type of Block | Bid evaluation criteria |
|--------------------------|--|
| S Type onland block | Work Programme and Fiscal package Technical requirement not a criteria |
| Onland and Shallow Water | Technical requirements only a pre-qualification criteria Evaluated on work programme and fiscal package |
| Deepwater | Work programme, Fiscal package and technical requirements |

After the bidding is done, the successful bidder enter into an agreement with the government represented through the MOPNG. Once the successful bidder enters into a production sharing contract with the government, it becomes the contractor. There can be more than one contractor and various successful bidders can form a consortium through a joint operating agreement. Each party shall have its own participating interest.¹¹³ For eg: in KG D6, there is a consortium of Reliance Industries Limited, British Petroleum and Niko Resources, Canada. Depending on their participating will they take their share in profit petroleum. Joint Operating Agreements

Oil companies often enter in production sharing contract as a consortium. This is done for various reasons like reducing risk and financial investment, to get qualified under the bidding process. These companies enter into a JOA for appointment of a operator. These are not pure joint ventures but only consortiums joined by an agreement. They are separate companies as well. They will be liable to the host government jointly and in accordance with their participating interest.

The main provisions of a JOA are:

¹¹³ Article 1.71 Production Sharing Contract defines participating interest as an undivided share of each party in the basin and their rights and obligations expressed in percentage. See Article 2

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- a) Duration: As long as the license is in existence or till the time joint property is disposed off and final settlement made between parties
- b) Operator: This clause appoint a operator to conduct exploration and production activities under the contract, its responsibilities, obligations, procedures to be followed etc.
- c) Scope: Application to exploration and production phases
- d) Operating Committee: establishment, functions, powers, meetings, structure etc.
- e) Programme and budget: The work programmes in various phases exploration, production and development and their respective budgets approved by the operating committee.
- f) Interest: the participating interest and accordingly determine the share in the profit
- g) Default: obligations of defaulting party and rights of the non-defaulting party
- h) Disposal of petroleum: the share in petroleum that each takes
- i) Assignment: assignment of participating interest with prior approval of all parties along with pre-emption rights to other contractors.
- j) Public announcement: to be made in case of any accidents or emergencies causing threat to life and property.
- k) Applicable law: The law governing the disputes and other matters usually the local law where the operations are being conducted.

Under Article 7 of the PSC, the contractors have the following obligations:

- ✚ Appoint an operator who shall perform the functions on behalf of the contractors
- ✚ Enter into a JOA within 45 days of effective date and provide a copy of the JOA to the government within 30 days of the execution of the contract.
- ✚ Change in operatorship only with prior written consent of the government and the government shall bear in mind the bid evaluation criteria for the same

In regard to assignment, a dispute arose between Canoro resources Ltd v Union of India¹¹⁴, wherein Canoro held 60% of the stakes in Amguri Oil Field in Assam. Canoro entered into an agreement with Mass financial corporation for sale of shares wherein Mass became a majority shareholder in the PSC. The government terminated the contract for unauthorized assignment of participating interest. It is to be noted that

¹¹⁴ 2011 (179) DLT 72

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the PSC at that time was the older one wherein the provision related to assignment in case of change in shareholding was ambiguous. The clause stated:

"In case of any material change in the status of Companies or their shareholding or the relationship with any guarantor of the Companies, the Company(ies) shall seek the consent of the Government for assigning the Participating Interest under the changed circumstances."

The court held that what cannot be done directly can never be done indirectly. A material change in shareholding would amount to assignment. Therefore, indirect assignment also requires prior written consent.

Another case related to assignment is the Arun Kumar Agarwal v Union of India.¹¹⁵ In this case the petitioner has challenged the approval of the government of the acquisition of Cairn India ltd by Vedanta for \$8.48 billion. He also sought a direction to ONGC to exercise its Pre-emption right of assignment for he alleged that being a government undertaking it had refrained from exercising this right and for the same a CBI inquiry should be set up. However the court finding no merit in it disposed off the writ.

After this, the contractor is granted a petroleum exploration license by either the central government or the state as the case may be. After discovery has been made, a lease is granted for development and production as per provisions of Article 11 of the PSC.

Under the contract the parties have the following general rights and obligations¹¹⁶

- (a) Right to carry out petroleum operation and recover costs and expenses subject to the provisions of the contract
- (b) The right to use quantities of petroleum produced for conduction petroleum operations.
- (c) The right to lay down infrastructure like pipelines bridges, rigs, build road, radio communication, telephone and other communication, ferrier, aerodromes etc.
- (d) The right to use all seismic data, technical data, maps, samples available with the contractor and this list shall be submitted to the DGH within 180 days of the execution of the contract

¹¹⁵ (2002) 2 SCC 333

¹¹⁶ Article 8

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(e) Right to take its share in kind of cost petroleum and profit petroleum¹¹⁷. For this a crude lifting procedure shall be decided on.

(f) Other rights as specified

However, the contractor also has some general obligations¹¹⁸ which include following modern oilfield and petroleum standards, appointing a technically sound head of operations, operate at its own risk and cost, be diligent, expeditious and efficient in its operations, ensure provision of all necessary data, ensure all equipments, machines, installations, plants are in sound condition and conform to acceptable standards, be economical in its approach, be mindful of interest of the nation, give regard to the environment, provide good living condition and medical attention to all its employees and prompt and orderly development plan. Under the production sharing contract the contractor has the obligation to supply petroleum to the domestic market till self sufficiency is achieved and it is only then that they can export it.¹¹⁹ When India achieves self-sufficiency then the government will inform the companies through a written notice and it is then that they can export. The contractor has to provide an estimate of crude oil production that it can recover from a field if maximum efficiency rate is applied.¹²⁰ The contractor shall have insurance cover for all petroleum operations and against such risks that come naturally with the operations like fire etc and are taken as per "modern oilfield and petroleum industry practices".¹²¹

Management Committee

This committee is constituted under Article 6 of the Contract. The structure and the functioning of the committee shall be as follows:

- ✚ 2 members representing the government whereas each company shall nominate one member each and if there is only one contractor then there shall be two members representing the contractor.
- ✚ The Parties may nominate proxy members as well
- ✚ The government members shall be the chairman and deputy chairman. The member designated by the operator shall be the secretary.

¹¹⁷ Article 18

¹¹⁸ Article 8.3

¹¹⁹ Article 18.1 Domestic supply, sale, disposal and export of crude oil and condensate

¹²⁰ Article 18.4

¹²¹ Article 24

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- ✚ The committee shall meet every 6 months during exploration period and thereafter every 3 months. The members is to be notified 28 days prior to the meeting by the secretary along with the provisional agenda. The chairman shall decide the final agenda and the secretary shall inform the members 7 days prior to the meeting of the final agenda. Any other matter may be taken up if there is unanimity.
- ✚ The minutes of the meeting shall be finalised within three business days of the meeting and shall be circulate for approval of the chairman and the members. Members may suggest modifications. The modification if not accepted shall be brought to discussion at the next meeting.
- ✚ Members can cast their votes through telex, cable, fax or any other means of communication as agreed.
- ✚ Emergency meetings can be held without the requirement of notice
- ✚ Meetings shall be held in India unless otherwise decided. Costs incurred on management committee meetings would not be cost recoverable.
- ✚ All decisions shall be unanimously approved and if unanimity is not there then the 70% participating interest holders should vote in favor along with a positive vote of the government member.
- ✚ The committee may appoint legal, financial and technical committees and the costs of the these committees shall be cost recoverable.

The following matters shall be submitted by the operator for advice¹²²:

- a) The work programmes and their respective budgets for the exploration period and any modifications related thereto
- b) After declaration of first commercial discovery, the annual work programme and budgets therein including the minimum work programme and additional work programme in the subsequent period.
- c) annual progress and costs incurred
- d) Relinquishment or surrender of contract area
- e) appraisal programme with revisions or additions.
- f) Any other matter decided mutually to the submitted or submitted by contractor for review.

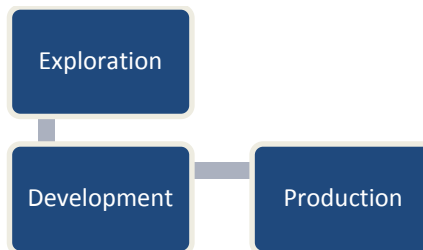
¹²² Article 6.5

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The following matters shall be submitted for approval:

- a) Except for the above mentioned work programme, all others like development plan and production phase work programmes.
- b) Determinate of development area and development plan.
- c) Auditors appointment and scope of audit.
- d) Working with contractor of other basins.
- e) Abandonment plans or site restoration plans.
- f) Settlement of claims on behalf of contractor for excess of limits fixed.
- g) other matters in opinion of government necessary for approval.

There are three phases under the PSC which are explained below:



License and Exploration Period¹²³

The Exploration period is divided into two parts, initial period and subsequent period. The total exploration period for onshore blocks is 7 years out of which initial period is 4 years whereas total exploration period for offshore block is 8 years out of which initial period is for 5 years. The subsequent period should not exceed three years time.



During the initial exploration period the minimum work programme has to be completed within the first four years. If the Minimum work programme is not completed then the time can be extended up to a maximum period of 6 months provided that the operator gives sufficient reasons for non completion. The contractor

¹²³ Article 3

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has to finish the mandatory work programme during this period in addition to the minimum work programme taken up during bidding.¹²⁴ The minimum work programme shall include seismic surveys and drilling exploratory wells in accordance with the specification given in the contract. The contractor has to obtain all geological, geophysical, geochemical and subsurface information as per "modern oilfield and petroleum practices." Work programmes and its budget has to be submitted to the management committee for review and approval.¹²⁵ After the initial period and on the condition that MWP is completed, the contractor will within 30 days notify the government:

1) Moving to subsequent exploration period with commitment of drilling exploratory wells

2) Relinquishment of entire area other than discovery and development area. At the end of the exploration period also, the contractor shall further relinquish area except discovery and development area.¹²⁶

3) If neither of the above is exercised then the contract is terminated after the initial period.

✚ If commercial discovery is made then appraisal has to be completed during exploration period however if there is no sufficient time during that period then an extension of 18 months would be given for onland blocks and 30 months for offshore blocks. Moreover, a development is also to be made and an application for lease along with the plan is to be submitted to the management committee. The contract shall remain valid only for the area where discovery is made.

✚ If no commercial discovery is made then the contract shall be terminated.

Development

Development phase is moved into when a commercial discovery is made.¹²⁷ The area where the commercial discovery along with area required for its development is called

¹²⁴ Article 5

¹²⁵ Article 5.10

¹²⁶ Article 4

¹²⁷ Article 10

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the development area.¹²⁸ After discovery, appraisal is done wherein it is ascertained whether the discovery is commercially viable or not. This is done through an appraisal programme wherein the reservoirs are delineated in terms of thickness and lateral extent.¹²⁹ Subsequently, a development plan is submitted to the management committee showing a detailed proposal of operation which includes description of the reservoir and its related data, report and statistics, all geological data, blueprint of the development projects, number of wells, estimated rate of production, estimated costs, work programme and budget, impact on environment and methods to prevent and mitigate it, health and safety guidelines and targets and their estimated deadlines.

Environmental Protection

Petroleum operations can have a very deep impact on the environment and this has been recognized in the PSC. Thus, the clause addresses various environmental concerns and ensures conservation and protection. Article 14 of the PSC imposes an obligation on the contractor to prevent any environmental damage and to take steps to mitigate and minimise damages if any and ensure compensation to all those affected by the damage. In addition to this, they have to comply with all laws applicable.

If the contractor has reasons to believe that any work or installation will have or is causing damage to the environment or if it fails to comply with any obligation that can cause environmental damage then the contractor shall immediately remedy it.

The contractor has to conduct two environmental studies, one the prevailing situation of the environment and second what effect will the petroleum operations will have on the environment and on the basis of these studies submit a report on the actions that need to be taken to prevent any damage.

(i) Preliminary study: Before commencement of work related to seismographic or any other survey

(ii) Final study: Drilling in the exploration period. This has to be approved by the union government before commencement of drilling like clearing of timber, use of explosives, wildlife and habitat protection, waste disposal, protection of archaeological sites, drilling tests, terrain stability, flaring, abandonment of wells etc.

¹²⁸ Article 1.32

¹²⁹ Article 1.5

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After this, studies shall be completed before development operations and shall be submitted to government for approval before commencing work. Any further modification or expansion would also require a study and analyses of its impact and prevention steps. Environmental provisions are discussed in detail in the chapter on legal framework.

When the petroleum operation is being done on a forest land then the rules under Forest (Conservation) Act, 1980 are to be followed. The rules require prior state government and central government approval. If it crosses national parks, sanctuaries, wetlands, mangroves or biosphere that are sensitive and other such areas then though they are generally not permitted but there is no other option then permission from appropriate authorities need to be taken.

The contractor also has the obligations to conduct all activities in an environmentally acceptable method. From time to time carry out environment impact studies. The contractor prior to drilling activity submit a emergency plan to deal with fires, accidents, oil spills, accidents, disaster management etc. In case of such emergency, the contractor shall immediately apply the plan and perform site restoration.

The Article 14 also lays down obligations related to site restoration. When the site is relinquished after the expiry of the contract or on non discovery then two important things need to be done:

(a) Abandonment plan - The government shall remove all installations and equipments in a manner that it causes the least damage and thus through an approved plan.

(b) Site Restoration - This is an important practice carried out in oil and gas exploration all over the world. The Contractor has to prepare a proposal for site restoration along with abandonment plant and the budget for it. This is to be approved by the management committee. There shall be a fund created for site restoration in which contributions from the parties shall be made from time to time. This shall be done in accordance with the scheme of the government and the contribution is to be made on the production methods, reserve to production ratio. The site restoration contribution is a cost recoverable including funds for abandonment and restoration of the contract area.

Non tax receipts

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A. Cost Recovery - it is the fraction of the value of the petroleum produced and saved from the area which the contractor is entitled to take as reimbursement for its costs. The contractor can recover up to 100% of exploration costs up to the date of commercial production and after the production. Even the development costs are 100% recoverable. The contractor has to bid for the cost recovery percentage that will take each year after production. The higher the percentage the faster the recovery.

B. Petroleum Profit - After the cost has been recovered, then the petroleum that is produced is divided between the government and the contractor on a pre-decided basis. The profit petroleum is calculated on the basis on investment multiple. Investment multiple is the ratio of accumulated net income to the accumulated expenditure.

Net income = cost recovery + profit petroleum + incidental income + production costs and royalty

Investment = exploration costs + development costs¹³⁰

Investment multiple = $\frac{\text{aggregated net income}}{\text{Aggregated investment}}$

The Petroleum share of the government will depend on:¹³¹

- a) When investment multiple (at the end of the year) ≤ 1.500
- b) When investment multiple ≥ 3.500
- c) When investment multiple $> 1.500 < 3.500$ then government share shall be calculated on the basis on z%

$$Z = a + [(b - a) * (X - 1.5)/2]$$

a and b are as denoted above where b should be higher than a.

X is investment multiple at the end of the year rounded off to three decimal places

The government can take its profit in cash or kind.

Local content requirement

The contractor has to offer a mutually agreed number of Indian citizens it shall employ for E & P activities.¹³² They shall be given practical training, exposure to

¹³⁰ APPENDIX - D Calculation of the investment multiple for production sharing purposes

¹³¹ Article 16.2

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petroleum operations so that Indian employees can be gradually increase and foreign personnel decrease. The contractor shall give preference to the good manufactured, produced or supplied in India s is given to imported goods and employ Indian subcontractors to the extent possible.¹³³The contractor shall provide the government with sixty days after end of each year the progress made with regard to using Indian goods and resources. The government has also come up with draft policy on local purchase preference on competitive basis.

Auditing of the contractor will be carried out annually by an independent auditing company registered in India. The appointment of auditor has to be approved by the government. The contractor shall therefore keel all reports, accounts, records, data at its office and present accurate and verifiable record of the petroleum activities and its taxes.¹³⁴The audited documents will be submitted to the management committee within sixty days of the end of the year which in turn shall be given to the government within another 30 days. The government also shall have the right to financial auditing for which the contractor has to make available all data, accounts, books, records etc.

The government is the sole owner of the petroleum and the title is transferred at the relevant delivery point the costs of which shall be incurred by the contractor. The government will also own all the data and assets purchased by the contractor for the operations can also be vested by the government to itself free of charge and free of any encumbrances.¹³⁵

Assignment of participating interest

Article 28 of model production sharing contract deals with assignment of participating interest in a block. If the contractor to the production sharing contract want to assign or transfer a part or all of its participating interest, prior written consent of the government is required. The PSC lays down the following conditions for assignment:

(a) the prospective assignee should have the capability and capacity to fulfill the obligations under the contract and to provide guarantees.

(b) should not be incorporated in a country with whom the government does not allow trade

¹³² Article 22

¹³³ Article 23.1

¹³⁴ Article 25

¹³⁵ Article 27

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- (c) ready to comply with any reasonable conditions imposed by the government
- (d) should not affect performance obligations
- (e) for s type blocks no transfer can be made without finishing the minimum work programme

If the contractor wants to transfer to affiliate company then it can be done with the approval of the management committee. The assignee will have to provide bank guarantee and the parent company also has to provide financial and performance guarantee. The assignee should not be a company with which the government has restricted trade with. Again it should not affect the performance obligations and lastly the minimum work programme has to be completed in case of S type blocks.

If there is a change in shareholding resulting into change in control and management or relationship of the company with the bank guarantee provided under the act then the contractor shall seek prior written consent of the government for assignment.

An application for consent should be accompanied by all relevant documents, board meeting minutes, general meeting decisions etc. Unless approved the assignment shall not be valid. The government can give its approval subject to reasonable conditions and if the government does not respond within 120 days then consent shall be deemed to have been given. An assignment shall not be valid if the participating interest to be held by any of the parties shall be less than 10%.

Guarantees

Article 29 shall within 30 days of effective date give an unconditional and irrevocable bank guarantee to the government. The guarantee shall be financial and performance from the parent company to the government. A legal opinion from legal advisors asserting that the guarantee has been signed and delivered properly has to be given. a bank guarantee for subsequent exploration period is also to be given if the contractor opts for it.

Termination of contract

The contractor shall have the right to terminate the contract under the PSC on the following grounds:

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- a) with respect to contract area other than development area after giving 90 days notice
- b) with respect to development area, in which petroleum has been produced by giving notice of 180 days.¹³⁶

The contract can be terminated by the government by giving a 90 days notice on the following grounds¹³⁷:

- a) submitted false documents to the government which were material to the contract
- b) The contractor has extracted hydrocarbon resource without permission or without authorization except if it was unavoidable in according with "modern oilfield and petroleum industry practices" and that the government was notified the same. ONGC case
- c) Contractor has been declared insolvent or colluded with creditors or taken undue advantage of any law for the debtors
- d) The company is going into liquidation for either amalgamation or reconstruction and that the government is sure that it will affect the performance
- e) has made assignment without consent as per Article 28
- f) Has failed to make monetary payments with in the period stipulated
- g) failed to comply with the provisions of the contract that are material to E & P
- h) Has failed to comply with the award by the arbitration tribunal under Article 33
- i) Failed to observe any terms or covenants of the lease or license or any Acts or rules
- j) Failure to provide bank guarantee

If in clauses (f) and (g), the situation is remedied within 90 days or the extended period then the contract shall not be terminated.¹³⁸ However, where there is more than one contractor then the government shall not terminate the contract for the non defaulting party it is willing to carry out the obligations of the defaulting party or has

¹³⁶ Article 30.2

¹³⁷ Article 30.3

¹³⁸ Article 30.5

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acquired the participating interest of the defaulting party with consent of the government.

On termination, all rights and obligations of the party shall cease to exist however, the government may allow the contractor for a period not more than 180 days to continue with production till another contractor is appointed.¹³⁹The foreign company shall remove all its property if it is owned by it and otherwise depending on the settlement of dispute. Lastly, the contractor shall restore site as per Article 14.9 after termination and remove all hazards that can possibly cause environmental damage.¹⁴⁰

Force Majeure

If there is non-performance or any delay in the performance by any party due to any unforeseeable and unanticipated and out of the control of the contractor not brought at the instance of the contractor then the contractor shall not be held liable for it. However, force majeure is not equivalent to unavailability of funds and commercial difficulty. Force Majeure may include " natural phenomena or calamities, earthquakes, typhoons, fires, wars declared or undeclared, hostilities, invasions, blockades, riots, strikes, insurrection and civil disturbances but shall not include the unavailability of funds." The party has to within seven day of occurrence of the event has to inform the management committee of the same with full particulars of the event. The party shall take steps to mitigate the effects of the force majeure. The party will have the burden to prove that there was a valid force majeure. If the force majeure exceeds beyond 30 days then in that case the parties shall meet to discuss the consequences and the steps to be taken.

Dispute Settlement

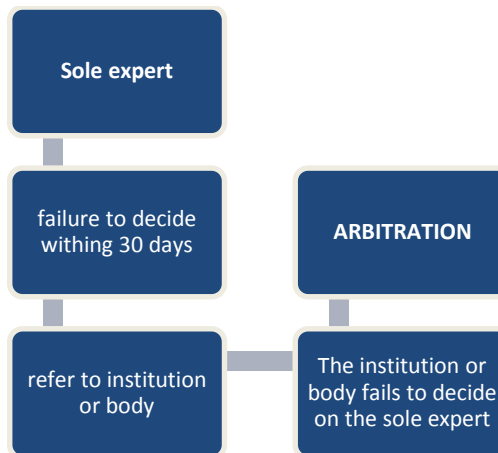
The parties shall resolve all disputes amicably. Matters of technical nature will be referred to a sole expertise who shall be an impartial person and shall make an endeavour to give a fair award and shall not be connected with the parties in any way. If the parties are unable to decide upon a sole expertise within 30 days then the sole expert will be appointed by an institution or agency as again may be mutually decided

¹³⁹ Article 30.7

¹⁴⁰ Article 30.8

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within thirty days which if again fails to appoint then the matter shall be referred for arbitration. If the expert is appointed then the decision shall be binding upon parties.



Otherwise than matters referred to sole expert, if the disputes cannot be settled amicably then they have to be settled through conciliation or arbitration. The decision shall be binding on both parties. The panel shall consist of three arbitrators, one each nominated by both sides and one mutually decided. If the parties fail to appoint an arbitrator within 30 days or they fail to decide on the presiding arbitrator then they shall be appointed in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal has to decide within four months unless extended and in case the decision is not unanimous then the majority decision would prevail. The arbitration shall be governed by the Arbitration Act. The doctrine of severability shall apply and the arbitration shall survive the contract. The parties may also submit a dispute for conciliation prior to submitting for arbitration as per the Arbitration Act. The venue of the dispute resolution would be New Delhi and the official language would be English. The fees shall be borne by both parties equally and other expenses shall be decided by the arbitrators.

5. CONTRACTUAL FALLACIES

India has been operating under a hybrid regime with three types of contracts and E & P systems existing, the nominated field, discovered fields and NELP. Now we have a new regime by the name of HELP. Other than that we also have CBM and shale fiscal regime which has now come under the purview of HELP. In spite a handful of regimes we have not been able to achieve sufficiency and are still struggling with imports. This concern was the main reason PSC was replaced by RSC. After a few years of PSC, it was realised that PSC with its loopholes and fallacies is not suited for Indian needs and conditions. PSC has remained the dominant form of regime since the 80s. PSC regime applies to Discovered fields and NELP fields under which majority fields are covered. PSC has however defeated its very purpose. PSC was introduced to let private investors into exploration and production however these very investors have used the loopholes in the policy to undermine our interests. KG D6 was an important series of events which the country realise that PSC could not fulfil the energy security dreams. This chapter will first highlight the KGD6 other issues and then go into highlighting other issue which eventually led to the scrapping of NELP and PSC.

5.1 The Krishna Godavari Dhirubai-6 basin dispute



It all started in 1999, when a Production Sharing Cost was signed between the government of India and the undivided Reliance Industries along with its 10% stake holder Canadian Niko Resources for exploration and production in the KG D6. Reliance was awarded with 16 exploration blocks in two auctions. The Krishna Godavari Basin spread across 50,000 sq km in the Krishna and Godavari river basins in Andhra Pradesh is one of the largest reserve of natural gas in India and now also touted to be the largest reserve of shale gas in India. The area where Reliance

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industries made its biggest gas reserve increase and the area now in dispute is D6 or Dhirubai-6. The basin was awarded to Reliance Industries pursuant to the NELP policy of the government of India by which it opened up hydrocarbon E & P for private and foreign players in order to achieve self-sufficiency. In 2002 Dhirubai Ambani died and four months the company struck gold.

However, it was like the fate of KG D6 was doomed from the very beginning and even before production could start, Reliance group split between the two brothers with the E & P business being taken over by Mukesh Ambani. However, both the brothers wanted to retain control over the basins and decided to split the gas reserve along with their father's empire. As per the 2005 agreement Mukesh Ambani agreed to supply gas to Anil for the first 17 years at \$2.34 mmBtu. This issue was however settled by the Supreme Court stating that the government owns the gas by virtue of Article 297 of the Constitution until it reaches its ultimate consumer and therefore the parties must keep their negotiations within the conditions of government policy.¹⁴¹ The price set at \$2.34 per mmBtu was also ultra vires the power of the contractors when there was no benchmark set and specially when ONGC was supplying gas at half the price. Meanwhile, another dispute was in the making. The National Thermal Power Corporation (NTPC) has invited bids for supply of gas for its 2600 MW power plants at Gandhar and Kawas. Reliance bid for the project and awarded it as it was the lowest techno commercial bidder. Reliance in the hope of starting production soon issued a letter of intent (LOI) to supply 132 trillion units of gas for 17 years at the price of \$2.34 per mmBtu and this was the basis of asking for the gas price.

Soon after, Reliance refused to sign the gas sale and purchase agreement despite giving the Letter of intent and it also refused to supply gas to both Anil Ambani and NTPC. Despite the fact that it had agreed on the agreement during the bidding process it asked for changes in the agreement. This made it evident that reliance wanted a higher gas price. However Reliance refuted this claiming that NTPC has put an unfair liability clause in the agreement. It was then in 2005 that the real war began. Anil Ambani run RNRL accused Mukesh Ambani run RIL of non fulfilment of its obligation to supply gas at \$2.34 per unit whereas RIL refused to supply gas at less

¹⁴¹ *Supra* note 110

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than \$4.2 per unit. In 2010, the Supreme Court ruled in RIL's favour and held the price valid till April 2014. Eventually, NTPC took Reliance to the Court in 2005. In order to resolve the matter, the then government referred the matter to the Empowered group of ministers in 2007 which was headed by the then President Pranab Mukherjee. The EGoM approved the price of \$4.2 per mmBtu. Reliance took advantage of this situation and stated that it would not be able to sell gas below this price. This over inflated price was questioned tremendously but the government kept shut about it. The then cabinet secretary along with Surya P Sethi, Principal Advisor, Power and Energy to the government of India raised objections and said that this would give Reliance undue advantage and immense profits cutting down on the government's share.¹⁴² Experts suggested that the cost of production is not more than \$ 1.43 and thus \$4.2 seems wholly unreasonable. The price determined by Reliance was done on the basis of Price discovery mechanism in which buyers are asked to quote a price and then the price is determined according to the arms length principle or as it can be called market based. Reliance initially placed this price at \$2.34 ensuing the contract with NTPC however, The oil ministry sent a letter to Reliance stating that the price of \$2.34 is not market based as it was quoted to get the NTPC contract. After approaching several other customers in the power and fertilizer sector, they came to the price of \$4.3 to \$ 4.9 per mmbtu. This was then cut down by the EGoM to \$4.2 per mmBtu. The logic given by the EGoM was that higher the price higher will be the revenue for the government however this was seriously contested by the then Cabinet Secretary KM Chandrashekhar and Mr. Surya P Sethi who said that the pricing formula suffers from infirmities and could not be accepted. The quotes that Reliance got from buyers were not truly representative. Moreover, Surya Sethi strongly objected stating that \$2.34 per mmbtu was already the discovered price sufficient enough to recover costs and make profits.¹⁴³ The logic given by EGoM also suffers from other logical fallacies. It cannot be said that higher the price higher the profit, this is because government doesn't work on profits, it works for public welfare.

¹⁴² XLIX Surya P Sethi *Pricing Domestic Natural Gas Some Improvement, But Flaws Remain Economic and political weekly* (November 01, 2014) available at <http://www.epw.in.spicework.dn.upes.ac.in:2048/web-exclusives/pricing-domestic-natural-gas.html>> (last accessed on 15th November 2015)

¹⁴³Sreenivasan Jain *AAP vs Reliance - the gas pricing controversy* February 23, 2014 01:02 available at <http://www.ndtv.com/india-news/aap-vs-reliance-the-gas-pricing-controversy-551648>

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Therefore, if the prices are high then the price of gas will also increase making commodities expensive and thus impact lives of common people. In all, it seemed like doing favours to Reliance to protect its own interest and possibly fund the next elections.

After the inflation of costs by Reliance was evident along with the unanticipated fall in gas production, the CAG was directed to do a performance audit of the basin. However, Reliance contended that CAG can only do financial auditing and not performance auditing. Despite this CAG released a report¹⁴⁴ in 2011 criticizing the oil ministry along with Reliance to retain and operating the basin in contravention of the PSC and thus hampering public interest. The CAG highlighted that Reliance had showed inadequate reports to retain the area it should have relinquished as per the PSC.¹⁴⁵ As per the report Reliance should have relinquished 25% areas where no discovery was made in 2004 and 2005 yet it retained it and declared the entire area as discovery area and the management committee somehow allowed this to happen. Moreover, without drilling the wells properly it predicted the potential production of the basin in order to keep the full basin area. The CAG report claimed that the actual discovery of hydrocarbons differed from the prospective discovery that Reliance claimed. Further it alleged that Reliance skipped the appraisal programme stage and moved directly to commercial production from discovery stage which wouldn't have been possible with strong surveillance over its activities. Without the appraisal programme¹⁴⁶ it isn't possible to ascertain the commercially recoverable amount of gas and therefore skipping that stage how did Reliance ascertain the prospective production of the basin. It is ironic that all this happened under the nose of the government and the government then goes on to terminate Reliance's contract and blame it for hoarding gas. The question that haunts the nation is that without the appraisal programme how did the DGH and the management committee ascertain the development plan, production rate and production costs.

¹⁴⁴ Government of India *Report of the Committee On the Production Sharing Contract Mechanism in Petroleum Industry* (2012) <http://eac.gov.in/reports/rep_psc0201.pdf> (last accessed on 19th November 2015)

¹⁴⁵ Production Sharing Contract Article 3

¹⁴⁶ Determining whether the discovery is commercially viable or not.

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In the light of these, further investments would only be harmful. This is because cost recovery of these expenses would tremendously reduce the government's share. More investment in the initial stages means that there would be more profit for the operator and less for government therefore Reliance will try to front end expenditure to increase cost recovery. The share of government which varies from 85% to 5% will be on the lower side owing to high investment and specially owing to the trend of inflation of costs by Reliance.

Reliance's Anil Ambani has pointed out earlier that it plans to increase investment upto 8.8 billion dollars from 2.4 billion dollars however the production will only double upto 80 mmscd.¹⁴⁷

The matter was then referred to a committee formed under the former RBI governor C Rangarajan who came out with a formula not followed anywhere in the world and putting unnecessary pressure on the parties and the government. The formula tries to put the price on import parity however this pricing system has not been adopted. In conclusion it can be said that though the UPA government claimed that the procedure was followed but the evidence says otherwise. This is just another case of crony capitalism benefitting private players. The procedures under the PSC were skipped and hidden along with company's non-fulfilment of commitments being unenforced. The entire scene stinks of anything but natural gas. The need of the hour is investigation into the matter without political colour and interference.

As is in the nature of Hon'ble Chief Minister Mr. Kejriwal, he has not refrained from poking in the issue of KG D6 as well. Recently, the Aam Aadmi party filed a FIR against the Reliance Industries and UPA government ministers for alleged fraud of rigging gas prices and inflating costs of production. In 2002, Reliance made a commercial discovery in the basin and claimed it to be one of the largest. The FIR alleges collusion between the MOPNG (Murli Deora being the minister) and Reliance in inflating prices. AAP claims it is in possession of two very pertinent letters, one by government of India which states that the price quoted for NTPC bid is not the market

¹⁴⁷ Shishir Asthana *10 things you should know about the Reliance KG-D6 gas deal Ready reckoner on the KG D6 gas basin controversy* (Mumbai February 12, 2014)
<http://www.business-standard.com/article/companies/10-things-you-should-know-about-the-reliance-kg-d6-gas-deal-114021200357_1.html> (last accessed on 27th February 2016)

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price pursuant to which Reliance increased the gas price and second, in which Reliance has stated the cost of production is less than one dollar and thus no concrete reason to inflate costs exist. It states the well head price to be at \$ 0.8945 per mmbtu and wellhead value for purpose of paying royalty is \$ 3.3105 per mmbtu.¹⁴⁸ Reliance has however denied this claiming their cost of production to have been between \$3 - \$4 per mmbtu.

Reliance has however continued to benefit until recently when Rangarajan Committee report came out in 2013 and suggested a further price hike. The committee suggested a new formula for calculation of price of gas which it said is market based. The formula calculates the average price of imported gas as well as price of gas at major gas trading hubs like US, UK, Japan. The committee came out with the price of \$8.4 per mmbtu.¹⁴⁹ However, as pointed out before this formula makes no sense. This is because the price is not truly reflective of the market price because there is no market for natural gas in the world. The only market exists in North America where gas on gas competition is there and the products are totally replaceable. Even in North America the price that existed was under \$4. However, later in 2013-2014, Reliance changed its stance and stated that its cost of production is close to \$7 per mmbtu as compared to \$4 mmbtu before. This also places the Rangarajan committee in doubt and its integrity is questionable as the formula if implemented can further hike the prices. The government has supported Rangarajan Committee by stating that this price hike will benefit not only Reliance but also Oil and Natural Gas corporation of India which is a government owned company and the largest natural gas producer in India.

Following the entire controversy, in 2012 the oil ministry had penalised Reliance with over \$ 1 billion for failing to generate the estimated output and it had also threatened to terminate the contract. The matter is now pending before an arbitration tribunal. In its defence, Reliance had stated that it had overestimated the reserves in its field however the output is not the same also because of geological conditions.

¹⁴⁸ *Supra* note 143

¹⁴⁹ Government of India *Report of the Committee On the Production Sharing Contract Mechanism in Petroleum Industry* (2012) <http://eac.gov.in/reports/rep_psc0201.pdf> (last accessed on 19th November 2015)

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Another major allegation against Reliance is that it had inflated the costs for greater cost recovery thus decreasing government's share of profit petroleum. The 2004 Oil Ministry had approved Reliance' plan of investing \$2.39 billion to produce 40 mmscmd gas. However, only after two years in 2006 Reliance amended its investment plan and increased it up to \$8.8 billion but with only double the production i.e., 80 mmscd. This shows that there was a possibility of padding the costs for higher cost recovery. Reliance has argued that the increase in investment was as a result of increase in oil prices pushing up cost of drilling which rose by 540% at that time. The CAG has also suggested gold plating. The CAG has implied that Reliance has gold plated its costs. Under the PSC, contractors can recover its costs from the gross revenue and then from what is left divide the share between itself and the government which is called profit petroleum. CAG has hinted that some of the contractors engaged by RIL were its own and therefore the inflation of costs could be shown. It has suggested that when Reliance chose its vendors and when technical bids were received all vendors except one were rejected and the contract was awarded on single financial bid despite the fact that all other vendors were pre-qualified. Most contend that Reliance has suppressed production for a higher price.

While the arbitration is pending, the government should realise that E & P activities are important in attain self sufficiency and combat fiscal deficit and inflation. Therefore, a fair and neutral review of the policies is required. The need of the hour is to revise our gas pricing policy and have a more consistent and less confusing policy.

The basin shot to fame in 2002 when Reliance made a huge discovery touted as the largest in India. Reliance claimed that the basin has 10 trillion cubic feet of reserves which had the capacity to change the country's fortune. However, the production with time declined. Where in 2009, the production was at 60 mmscd, it fell quickly to 15 mmscmd. What followed was not increase in production but a long drawn drama which has put soap operas to shame. Reliance blamed geology for the decline in production. It has claimed that water has flooded a few wells and some pockets are too isolated and hard to reach which also increased cost of production. Whereas government blamed Reliance for not drilling the wells, well enough. The CAG has

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also found fault in RIL's Procurement process. Following this, the government imposed a penalty of 1.8 billion dollars on Reliance for shortfall in production.¹⁵⁰

Natural is a relatively cheaper and eco-friendly source of energy. India is one of the largest importer of gas in the world and is completely dependent on external sources. With the political instability in gas producing regions rising and fluctuating prices its important India moves towards self independence. This is also important since one of the highest contributor to fiscal deficit is import of crude and gas. India has a mere 10% reserve of the total reserves and for complete utilization of resources it becomes important to make domestic production viable. Public sector companies like ONGC and Oil India produce 80% of the gas however that is not enough and private players need to be involved. Power plants stand idle waiting for its supply. More than 14000 megawatt plants have been declared as non performing asset as there is no supply of gas. Therefore, the government has to think beyond disputes and look for effective solutions. KG D6 has a direct bearing on India's energy security. An important part of our resource is in the hand of a giant capitalist who have history of manipulating laws and resources in its favour. With resources back in our hand we can rather than import gas from Middle East make our own gas and mend our fiscal deficits or rather than burning the noxious coal move to clean source of energy.

Till 2009, Dhirubai Ambani's seemed to be getting with the reservoir producing up to 80 mmscd per day. Reliance began to be anticipated as soon entering in the race of British petroleum and Exxon Mobil. What India did not anticipate was crony capitalism was going to eat up its resources. In the late 2010, the production dramatically fell and have been at a record low since then. The reservoir which was claimed to have 10 trillion cubic feet of gas has only a proven reserve of 3 trillion which is also at dispute currently. Till March 2014 the price that prevailed was \$4.20 per million British Thermal Units (BTU) whereas after March the price had to rise to \$8 per unit.

¹⁵⁰ Anand Kalyanaraman *All you want to know about KG-D6* March 31, 2014 available at <http://www.thehindubusinessline.com/opinion/all-you-want-to-know-about-kgd6/article5855350.ece>>

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Reliance with its pocket full of money and a legacy of political influence and non compliance with laws had every reason to suppress production to pressurize the government into raising prices.

In 2011, the oil and gas giant British Petroleum bought 30% stake in the contract valued at \$7 billion on the apprehension that there might be a short term crisis initially however once gas prices rise, the field's production would too recover.¹⁵¹

Looking from the side Reliance, analysts say that costs shot up because there was a global boom and rise in prices thus inflating price of sub contractors like driller and also of the equipment. It is impossible to inflate costs without the connivance or negligence of the DGH and the management committee. Moreover, Reliance's executive state the contracts were given to contractors which were nowhere related to it like Aker, a Norwegian firm which had no relation to Reliance. The possibility of capital return on the project now seems low. The total capital investment will be around 15-20 billion dollars most of which has been invested. The return on this will be 20-3- million dollar but most of it will be received only after 2016 thus taking into account depreciation of time value of money and taxed, the project will not be very profitable. To the benefit of RIL, ONGC has also stated that there is a possibility of some offshore discoveries being viable only at a gas price of \$11 per BTU. However, ONGC's claim can be contended on the ground that it will be biggest beneficiary if gas price is increased. Reliance also contends that it has not given up on E & P activities. It is trying to raise the output of existing fields and discover new ones. It has claimed to have made a significant discovery 4.5 km below the sea level under the main field. BP now expects production of 40-50 mmscd by 2018 however it fears political and regulatory risks. It's not just that private players need to behave but also that India being a energy hungry and dependant country needs to remove barriers to investment and not just geological barriers but also regulatory and political.

The Modi government has opposed of arbitration for revision of gas prices. It maintains that Reliance has no right over natural gas pricing which remains the

¹⁵¹*Reliance and BP in India Deep controversy India's biggest energy project has produced more squabbles than gas* Mar 22nd 2014 available at <http://www.economist.com/news/business/21599381-indias-biggest-energy-project-has-produced-more-squabbles-gas-deep-controversy>

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government's exclusive right as a trustee of the people. Reliance has been unwilling to invest in further exploration and production till the price is revised however the government is adamant that it has the final say on gas pricing. The current price is \$4.2 mBtu. The government revised this price for other gas producers to \$5.6 per mBtu but not for RIL. This dispute is sub judice before the Supreme Court. However, pending the dispute, delaying exploration activities at Krishna Godavari basin will hamper national interest. The project is capital intensive and requires huge amount of investment. Reliance has already invested \$10 million in the E & P activities in KG D6 but further activities require a further \$7 - \$8 billion of investment which the company is reluctant to do. The company is apprehensive whether it will be able to recover its costs and is clear that it shall not carry on until the cost recovery roadmap is negotiated. It claims that the offshore fields are capital intensive and the success ratio is low and thus it needs negotiation on prices and cost recovery. Already, the production from D1 and D3 is falling with a mere production of 11 to 12 mmscd as compared to 60 mmscmd production in 2010. It is also estimated that KG D6 will get exhausted in another three to four years. The other three fields owned by Reliance at KG D6 are MJ1, Satellite and R-series. Though Reliance had planned a whopping \$3.18 billion investment in R-series for producing 13 to 15 mmscd gas for 13 years but right now it dropped its plan of investment. However, what is surprising in between all this hue and cry, is that Reliance has already recovered most of its costs through sale of gas and 30 per cent sale of stakes to British Petroleum which has invested \$8 billion. Reliance gross revenue from E & P was Rs. 17,250 crore and Rs. 6,700 crore in 2010-11 which fell down to Rs.6,068 crore and Rs. 1,626 crore in 2013-14 as a result of decline of production as claimed by RIL.¹⁵²

As for Reliance even if it's right and has a plausible case, it carries a tattered history of being politically manipulative and working under the table. This legacy may soon become a heavy liability for the company. Now all is in the hands of the arbitrators.¹⁵³

5.2 Contractual issues

¹⁵² Nevin John Running out of Gas The government and Reliance Industries continue to fight over KG D6 gas price at the cost of national interest May 10, 2015 available at <http://www.businessday.in/magazine/focus/reliance-industries-govt-fight-over-kg-d6-gas-price/story/218304.html> (last accessed on 27th February 2016)

¹⁵³ *Supra* note 151

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The main issues recognized are:

1. Cost recovery and Pre-Tax Multiple mechanism - Suppose I manufacture a phone and sell it for Rs.20,000 and then I manufacture the same phone but plate it with gold now my cost rises up to Rs.30,000. This is called gold plating. This is exactly what PSC allows, gold plating the costs of exploration and production. Gold plating here means inflating the costs or expenditure. In the KGD6 case Reliance has been alleged by the CAG to inflate costs to increase its share in profit petroleum. The profit petroleum depends of the cost recovery and pre-tax investment multiple.

2. Audit by CAG - When the CAG started performance auditing for KG D6, Reliance objected to it stating that government auditor can only conduct account auditing and not performance auditing. This is because Article 25.5 of the PSC only mandates account auditing by government. However, the CAG went on to conduct the auditing. In pursuance of this, MOPNG also asked Reliance to produce documents and record. Moreover, Reliance also objected to disclosure of report as reports are to be kept confidential. Lastly, they objected to the auditing being conducted for more than 2 years as the matter was referred to CAG in 2007 and the report came out in 2011. For the same, the consent of contractor was required which was not taken. However, the CAG defended itself stating that it can be justified under Section 16 of the CAG Act, 1971. Under Section 16, the CAG can audit receipt that go in the consolidated fund of India and profit petroleum being a non tax receipt can be audited. Moreover, also CAG reports are before the parliament as per Article 151 of the Constitution of India where they are either passes or not. Therefore, this laying down procedure gives the report the credibility. It is also justified under Section 20 of the Auditor General's (Duties, Powers and Conditions of service) Act where audits can be done for public interest. Under this section, in cases where the CAG is not authorized to carry out audit under any law then it can conduct audit if the President, Governor or administrator of the Union territory directs the CAG to do so. The CAG can also suggest the President, Governor or administrator of the Union territory for an audit if a lot is invested or advanced. Section 1.1 of the accounting standards also states that CAG can audit to determine the correct entitlement of profit petroleum of the government. The contractor can recover 100% of his costs but he has to bid the percentage of cost he will recover each year after commencement of production. The

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portion of cost not recovered is carried forward each year and when the cost is fully recovered then the remaining revenue is shared which is called profit petroleum. The Profit petroleum is dependent on pre tax investment multiple. As explained before, PTIM is derived by dividing the sum of net cash incomes from the production with the summation of annual investments upto the exploration and development periods. net cash income is the revenue minus production costs and royalty payments. Therefore, IM is completely dependent on cost recovery and profit petroleum is dependent on IM. The higher the IM ratio, the higher is the share of the government. However, what is to be noted is that the companies have very less incentive to actually reduce the capital expenditure therefore they indulge in "front loading" of expenditure that is increasing the total costs of operations in the initial phases. This prevents the IM to move into higher slab and thus decreases the profit to be share. Usually the profit that the government gets is between 25 - 85 % but usually with front loading the government gets the lower percentage. Also what can happen is that after production, the contractor will take several years to recover his cost and till then the government gets nothing. There are other factors too that may influence gold plating like the price of gas. Therefore, pricing is pertinent and should be carefully done by the government. The operator will produce gas faster when the prices are high and vice versa. To conclude, PTIM is not a flawed concept in itself. The only problem is ascertaining the costs and how they are arrived at. Transfer pricing also affects cost recovery. In all, cost recovery is a bottle neck serve the commercial interests of GOI.

India could have also adopted the Indonesian concept of cost ceiling. This method sets a limit on cost recovery and has two fold benefits., one that since the model is based on relevant factors of expenditure therefore it allows the investor to recover its costs completely and second that it prevents inflation of costs by investor thus minimizing the loss to the government. The benefit of cost ceiling is also that it ensures that the host government will have its share of production or profit petroleum as soon as production commences which also goes for OCs who also will not have to wait for a long time to receive their profit petroleum. A late return on revenues is usually a deterrent for investors and also politically unjustifiable often many a times creating possibilities of rigging of costs by investors.

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3. Penalty for non-performance - Article 18 stipulates that the contractor should from time to time notify of the prospective output from the basin. It has to submitted quarterly production estimates. However, this is only a directory provision and non fulfilment of the estimate is not subject to any penalty. Therefore, the contractor has no liability to fulfil its estimates. In the KG D6 case it was seen that reliance had predicted 80 MMSCD however now it is only producing a meagre 15 MMSCD.

4. Exploration period: The exploration period is for 7 to 8 years depending on the block and after that there is no exploration period allowed running simultaneously with the development period. Because of this, any exploration that occurs in production will not be recoverable or deductible. This remain ambiguous. Thus, there is a possibility that the contractor can shift the burden of exploration on the developed field or fields under production thus reducing profit petroleum or increasing cost.

5. Development period for deepwater blocks: Sometimes there is one discovery made and it is followed by several discoveries but which take time. Development of this discovery takes time due to technological and infrastructural constraints. However, a single discovery is not feasible but is economically sustainable only in a cluster. However, it remains unclear whether exploration and development can continue simultaneously and that creates this problem as buying technology for just one discovery may not be very economically viable. Moreover, if the time taken for field development plan is too long then the contractor does not get much time for executing the development plan

6. Appraisal period: Again, appraisal period is followed by exploration and cannot continue simultaneously which may create a problem because if exploration is to be done at different stage than the appraisal. Therefore, integrated appraisal is to be done for the same geological level.

7. Bidding criteria for S type blocks: The S type blocks do not require technical capability but only work programme and fiscal. The liquidated damages for on shore blocks is less and that can be taken advantage of by the contractors leaving the wells unfinished.

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8. Environmental issues: Even though the general environmental laws apply to petroleum industry and Article 14 of the PSC also lays down norms to be followed to be environmentally responsible however, no provision requires monitoring of these activities. Moreover, there is inadequate overlook therefore the management team should overlook that environmental provisions are being strictly followed. This is also an important part of Health, safety and environment. Every project should have a team overlooks the implementation of statutory requirements and also drafting of internal policies for the same.

9. Management Committee: The management committee should focus on maximization of production and efficiency and for the same the decision making procedure should be faster. There should be no regulatory delays in approving work programmes, budgets, development plans etc. There are also frequent conflicts between the government nominees and the contractor. The parties are stuck with the nitty-gritty of day to day affairs. There are disputes over fiscal matters, auditing etc. What it needs to realise it that MC is a joint efforts and both the parties are to benefit from it therefore conflicts and delay will not be of any use. Additionally, Article 6 stipulates that if unanimity is not achieved then the majority decision will prevail however, in reality no decision can be taken without it being unanimously. The decisions that are taken by the operating committee of which government is not a member of is only placed before MC. Therefore, the MC's scope and influence become very limited and due to disputes and non achievement of unanimity the issues remain unresolved thus delaying the overall process.

10. Sole expert - The jurisdiction of the sole expert is left very ambiguous. It is not certain whether arbitration act can apply to sole expert or not. Therefore, provisions related to appeal of decisions, interim orders, revision, review, setting aside awards etc remains unclear.

The government to overcome the difficulties of PSC has brought RSC which does not have the cost recovery regime and thus has no impact on profit petroleum. However, RSC applies only to future blocks and PSC is still in existent therefore it becomes important that the PSC blocks be managed and administered properly to do away with whatever flaws possible for eg the government nominee in the management

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committee should be stricter while making decisions with respect to cost recovery. The next chapter discusses in detail the recommendations.

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Conclusion

Energy is an important cornerstone for every nation. A important tool for development, prosperity and higher standards of living. While we've looked enough at the negative side of energy market in India, it's important to see that indigenous crude oil production has increased up to 35 million tonnes per year and we have a 5000 km network of pipeline along with the largest refining capacity in Asia. The years after independence have seen tremendous growth in the upstream and downstream sector with utilization of resources and increasing refining capacity, laying down pipelines, becoming the largest refiner in Asia and creating a vast structure for marketing of products. India has potential for large investments as most sedimentary basins remain unexplored as has been highlighted before. However, with policy reforms and effective implementation and monitoring, all this can be rectified.

India requires huge investments for energy security and for that continued policy reform is required to bring in capital. If the fiscal regime is improved, this sector will see heavy investment from big oil and gas names. It should also be simple to administer, business oriented, brought in line with financial interest and stable. The contract sanctity should also be maintained. The make in India program is aiming at fiscal benefits and ease of doing benefits and if it works the next bidding round will see more foreign investors. Prospectively in the offshore region in the western and eastern coastline is very high however, the coastlines are characterized by high pressure and high temperature which makes the blocks costlier than others. Therefore, it is important to incentivise the investors for investments which can be done through an attractive fiscal regime and a more investor friendly administration and regulation. The tax should also be further extended as the corporate tax makes the tax as high as 30-35% while currently the contractor has to pay a meagre 18.5% tax.

The deepwater basins have also remain untapped owing to technical challenges and thus it creates opportunity for investors to bring technology and expertise for exploration and development of these untapped regions. With the fall in international gas prices, imports will see a surge and investments will see a downfall due to fall in domestic prices which will discourage investments. When oil prices are low, investors are unable to produce economically specially in deep water where costs are unusually

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high. The Indian companies operating outside India and building strategic alliances with the middle east and other resource rich countries should bring back technical know-how. Indian companies should approach countries with unconventional resources and invest in such countries and bring back the revenue and resources to India like the US, largely untapped Argentina and Ukraine. India also has a huge reserve base of CBM however till now only 30 blocks have been allotted. The OALP will help increase investments. The CBM policy too encourages investment. Shale currently is out of question due to technological and geological constraints. Even though the government has brought out the shale policy and had earlier aimed at starting bidding for shale in 2013, it is currently not very plausible as we do not have fresh water and enough land for exploration. Moreover, horizontal drilling requires a lot of space which with the population density of India is not very possible. Hydraulic fracturing also has some environmental repercussions like chemical leakages, water pollution, earthquakes etc. which have not been resolved yet. Lastly, shale reserves overlap with the conventional sources reserves and this might create conflicts if the already existing company does not take up shale exploration. Therefore, unless we resolve these issues, shale cannot be exploited. Other than this, the government has also notified underground coal gasification as an end use under the mining policy. India provides a plethora of opportunity in the service industry as well like drilling. The companies are looking towards enhanced oil recovery technologies and techniques. There is a need to develop gas pipelines for LNG import. The TAPI will not be functional till the 2018 but we need more and more pipelines for gas imports. In addition, we need to increase storage capacity as well so that gas can be imported in bulk when the prices are low. Gas can only become a fungible market with gas on gas market when import system is improvised so that gas can have competitive pricing thus making it beneficial for all.

For effective monitoring "good international petroleum practices", these codes or guidelines should be codified with the help of experts under the chairmanship of the DGH and this code shall be referred to for monitoring. Auditing should be restricted strictly to independent auditor as investors would not appreciate interference unless required in public interest. Moreover, the RSC does not affect the no tax revenue i.e., profit petroleum and thus auditing would be not be very pertinent. There should also be penalty for non compliance with production estimates under Article 18 of the PSC.

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Unless this is done, companies may not produce up to the mark and may sabotage production in order to manipulate the government to take decisions in its favour. Moreover, the liquidated damages for onland blocks is so less that the contractor can rather pay them and abandon the block.

India is a currently most vulnerable to environmental problem. With high levels of pollution, water shortages and high population density, environmental policies also needs to be looked at. Non renewable resources are limited and will soon be replenished. Moreover, they are not clean and highly pollution. It is important we diversify our sources of energy. Examples of countries like Spain and Denmark can be taken where power is derived majorly through solar and wind energy respectively. With the Paris convention commitments, the environmental pressure is looming upon us and for there is a push for renewable energy is required. Therefore, the government needs to incentivize the sector through tax reforms and other fiscal benefits. Efficient technology for energy efficiency, low carbon emitting fuels and pollution control are equally important.

India is one of the least explored country with a well density lowest in the world. The recent times have been marked with rising demand and consumption of oil, decline in crude production and low reserve accretion. To fight this, the government has brought in several reforms in the oil and gas pricing structure, introduction of gas pricing scheme for underutilized plants, de-regularizing prices and the most important one has been the draft revenue sharing contract to replace the controversial and flawed production sharing contract.

The government recently brought out its marginal field policy wherein it has allowed pricing freedom to 69 marginal and small fields it plans to auction. Under the Marginal Fields policy, the government is auctioning 69 fields of ONGC and OIL. Similar provisions are to be given to natural gas produced from areas that are to be awarded under the new contractual and fiscal regime to incentivise production from these areas.¹⁵⁴ After the KG D6 controversy, the Oil Ministry has been constantly

¹⁵⁴ Govt proposes to free gas pricing, start revenue sharing for exploration Nov 17, 2015 08:14 IST <http://www.firstpost.com/business/govt-proposes-to-free-gas-pricing-start-revenue-sharing-for-exploration-2508334.html>

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taking steps to revive production by bringing in simpler rules specially related to gas pricing. The whole controversy had arisen due to the gas pricing and since then companies like BP, Reliance and even ONGC has been seeking price freedom that make investment viable. The Modi government brought the new Domestic Gas pricing guidelines in April 2014.¹⁵⁵ As a result of this new pricing formula the price has increase to \$5.61 MMBTU in contrast to the earlier \$4.2 MMBTU. However, this price applied to all producers except Reliance whose price shall be determined by the arbitration tribunal for which the earlier \$4.2 per MMBTU would apply. The price difference between the two prices would be credited to an account maintained by GAIL which shall be paid or not paid depending on the award of the arbitration. The pricing formula has dropped the earlier Japan LNG and Indian import netback pricing markers in this new formula. The prices are revised every 6 months and notified by the Director General of Petroleum Planning and Analysis Cell. These prices are to be uniformly applied to all sectors. The prices were applied prospectively and came into force in November 2014. They were made applicable to CBM blocks as well. Thus, the government is striving at uniform pricing for all types of sources of energy. The new pricing scheme will help revive basins that had stopped or decreased production. The older regime where the prices had to be approved by the government was preventing companies from taking new capital investments. This new system where the restrictions have been removed will encourage new investments. It had become important to have market based pricing specially since the contractors weren't able to recover costs at the earlier lower costs and that the companies were not developing complex terrains for gas at such low costs. Moreover, market costs indicate market volatility and regulatory and geological risks. This new pricing formula has also replaced the Rangarajan formula which if applied would have taken the prices to somewhere around \$8 per MMBTU. The gas reform is appreciated but this should be accompanied by a uniform pricing mechanism and nominated fields should also be linked to market based pricing.

The government as a follow up to Make In India program is introducing policies with the aim of ease of doing business. The HELP is the greatest example of this. It has replaced the PSC with RSC. Moreover, it seeks to implement The Uniform Licensing Policy or the Open Acreage Licensing Policy (OALP) wherein government plans to

¹⁵⁵ *Supra* note 106

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introduce will have a uniform licensing policy for both conventional and unconventional sources like oil, shale and CBM. They will be given under one permit unlike the present where NELP governs convention oil and gas, the CBM policy governs CBM licensing and there is no licensing policy for shale. It is also being said that the OALP will allow the companies to choose their own area instead of the government allotting them an area. This will have several benefit. Permissions and approvals for different hydrocarbons will not be required. This will reduce administrative pressure and work for government and allow ease of doing business to the companies. This will reduce operational constraints and red tapism. Moreover, companies can simultaneously produce two different sources with due permission.

The most important reform is replacement of PSC with RSC. The Pre-Tax investment multiple (PTIM) and cost recovery linked payment will be replaced by revenue sharing model. The previous model has come under heavy criticism specially by the CAG wherein it said that it encourages the companies to inflate costs to reduce the government share in profits. In the new regime, the companies will before production have to bid for the percentage of profit they will share with the government. This way they cannot subsequently decrease the profits by any sort of manipulation. The companies will from time to time, at different stages of production, indicate the quantity of oil and gas they will share with the government. The revenue share shall be linked to the average daily production in a month and average oil and gas prices in a month.¹⁵⁶

Bidding for the revenue will be done at two points:

"a) when revenue is less than or equal to the Lower revenue point

b) when revenue is more than or equal to higher revenue point¹⁵⁷

This percentage of share will then be interpolated on linear scale. Revenue will be shared on a monthly basis under this regime."

Article 15 of the Model RSC discusses the revenue share. Revenue shall be determined on the basis of the following:

¹⁵⁶ *Ministry wants revenue sharing for future oil contracts*

<http://www.thehindu.com/business/Industry/oil-ministry-wants-revenue-sharing-for-future-oil-contracts/article6339234.ece> August 21, 2014 (last accessed on 25th February 2016)

¹⁵⁷ Article 15 Revenue Sharing Contract

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"(a) All amounts accruing in relation to the petroleum produced and saved from the contract area during a month shall be the revenue for the month. It shall be calculated on accrual basis rather than receipt.

(b) Amounts accrued from petroleum produced and saved after royalty deduction shall be taken into account.

(c) Amounts on account on marketing margin

(d) amounts accruing from monetization of petroleum in reservoir or any amount from transaction related to monetization of potential petroleum in the reserve excluding the debt financing received.

(e) value of petroleum (including swap arrangement value) or the cost of delivery"

What is important is revenue is taken on monthly basis. The government shall be paid on a month to month revenue basis rather than after years of cost recovery. The contractor revenue shall thus be the amount left after sharing with the government. This is post royalty payment mechanism wherein manipulation of costs is not possible. The management committee is currently plagued with conflicts and manipulation. With the cost recovery mechanism gone now the management will not have disputes related to cost and fiscal regime therefore the decision making process will be faster. It is also expected that under the regime decisions related to budget approval and plans and programmes.

Moreover, the Empowered group of ministers committee has been scrapped since the price mechanism has been changed and the approval is done on the basis of a designated formula therefore approval of the committee is not required.

Another important reform has come in the form of Arbitration and Conciliation act wherein time limit has been set for finishing the arbitration and passing the award. In the light of the White Industries case, this had become important for India as the tribunal had held that delay in adjudication of dispute amounts to non fulfilment of certain investor treaty obligations like effective dispute settlement mechanism. Moreover, such a provision is attractive to investors who would not have to wait for years to have the final decision on disputes. However, the jurisdiction of sole expert still remain unclear.

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As a developing country dependant on imports and lacking capital and technology for E & P, the nation needs a policy through which it can have effective control over its resources preventing them from being exploited and at the same time have policies that attract investors. Indian market has been constantly blamed by investors to be unattractive with slow and laborious operating system but reforms under the NDA government enabling "ease of doing business" has brought hope that the country will move faster towards energy efficiency. Hoping the reforms will increase the investor's trust and reliability in the government and the Indian system.

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