Government of India
Institute of Secretariat Training and Management
(Department of Personnel & Training)

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Reading Material

ORIENTATION TRAINING PROGRAMME
of
ASSISTANTS, SECTION OFFICERS, UNDER SECRETARIES
of
MINISTRY OF PETROLEUM & NATURAL GAS

Sponsored by
DEPARTMENT OF ADMINISTRATIVE REFORMS & PUBLIC GRIEVANCES
As part of the
DFID funded Capacity Building for Poverty Reduction Programme

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FOREWORD

The utility and need for training in any organization is universally accepted. This is more so in Ministries and Departments of Government of India, where apart from rules and regulations on various subjects, policies in the area of social welfare at National, State and grass-root level are formulated and implemented.

2. The focus of training is generally directed towards foundational level, where the newly recruited officials are required to undergo intensive training on various aspects of administration. Also, the concept of in-service training at various levels focusing on requirements as and when such officials move up on promotion is also firmly established.

3. However, one aspect, which generally goes un-noticed, is when officials are moved from one Ministry/Department to another, as a result of routine transfer policy or on promotion and also, officials directly recruited are allotted Ministries/Departments and join after receiving Foundational Training on general subjects. Such officials are faced with the problem of familiarizing and learning the working of the new Ministry/Department. The concept of any kind of Orientation training, focusing on the need of the Ministry/Department, is by and large not in place. The problem of such officers is more acute in Techno-economic Ministries where work relating to policy formulation and implementation requires knowledge about the technical experts of various processes and functional aspects, besides project monitoring and evaluation and working of public sector undertakings.

4. The newly posted officials find it extremely difficult to come to terms with the situation at the ground levels, like the various components of power sector like, Thermal Hydro, etc. Besides, various projects of the Ministry also should be made known to such officers.

5. DARPG as part of the DFID funded Capacity Building for Poverty Reduction Programme has taken initiative to bridge this gap by providing Orientation Training to the officials posted to a ministry on promotion, transfer, deputation or direct recruitment. The task of identifying training needs for such orientation training programme and based on the same, designing training and development of training material has been assigned to ISTM as Consultant.

6. To undertake the task assigned, ISTM has constituted a consultancy team consisting of Sh. M.S. Kasana, Joint Director, Sh. P.S. Sareen, Deputy Director and Sh. S.K. Dasgupta, former Director, DOPT (as External Consultant).

7. It gives me great pleasure that the consultancy team has conducted extensive research and studies to conduct Training Needs Analysis, design training programme and develop qualitative training material to enable the participants to master the organisation structure and co-ordination mechanisms for activities of various departments within the ministry, appreciate the sectoral scenario and major policies and programme in operation, etc.

8. I am confident that this training material prepared by the consultancy team for orientation training programme for the target group (Chapters 1 to 6) will prove to be useful reference material for the capacity building initiative in the area which has remained unattended till now.

(KHWAJA M. SHAHID)
DIRECTOR

September 2009

Preface

This reading material is an outcome of DARPG initiative as implementing agency for DFID funded Capacity Building for Poverty Reduction Programme to operationalise Orientation Training Programme for Assistants, Section Officers and Under Secretaries on their posting to the Ministry of Petroleum & Natural Gas. DARPG assigned the task to ISTM as Consultant, which in turn constituted a consultancy team consisting of the undersigned along with Sh. P.S. Sareen, Deputy Director, ISTM and Sh. S.K. Dasgupta, former Director, DOPT (as External Consultant) to conduct training needs analysis , design training and develop training material. The consultancy team undertook extensive research and studies to conduct training needs analysis, design training programme and develop training material.

2. Subsequent to the training needs identification and design of the programme, task of compiling the reading material pertaining to Ministry of Petroleum and Natural Gas was undertaken. This monograph containing 6 chapters is an endeavour in that direction.

3. To begin with, list of abbreviations relating to the ministry has been prepared. Chapter 1 of the monograph provides the overview of the Ministry of Petroleum & Natural Gas and its functions, while Chapter 2 covers the Exploration and Production of Petroleum & Natural Gas. Chapters 3 and 4 cover refining, marketing and distribution of petroleum and natural gas. Chapter 5 covers various Undertakings/Organisations under Ministry of Petroleum and Natural Gas whereas Chapter 6 is about conservation of petroleum.

4. The members of the Consultancy Team have scanned substantive amount of literature made available by the ministry and have compiled this reading material with the objective that the learning of the participants is supplemented in providing domain specific knowledge and skills.

5. We look forward to constructive suggestions / comments for making this monograph richer both in content and context. Please feel free to give us feedback on this monograph.

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The initiative taken by Department of Administrative Reforms and Public Grievances to institutionalize a system of Orientation Training as a pilot project in five Ministries will go a long way in increasing efficiency and productivity of the concerned Ministries. The Institute of Secretariat Training and Management (ISTM) and the Consultancy Team express their deep gratitude to Department of Administrative Reforms and Public Grievances for entrusting this responsibility to them, which involves the entire gamut of collection of data, identification of training needs, design of training and also preparing the training material.

2. The Consultancy team is grateful to Secretary, Department of Administrative Reforms and Public Grievances and all other officers of the Department for their guidance and assistance extended to the team from time to time.

3. The Consultancy Team is grateful to Shri Deependra Pathak, Director, Ministry of Petroleum & Natural Gas and also, the Nodal Officer nominated for this purpose, for coordinating the visit of the team to the Ministry for collection of statistical data and for facilitating meeting with other officers to ascertain their views. The Team is also grateful to Shri Pathak and all the officers of his Division for providing relevant material pertaining to the Ministry and also, copies of various circulars issued by the Ministry from time to time.

4. The Consultancy Team is grateful to Shri Sanjay Gupta, Director, Shri Kalyanasundaram, Director, Shri Shri Prakash, Deputy Secretary and Shri Arunoday Goswami, Under Secretary, Ministry of Petroleum & Natural Gas, for sparing their valuable time for interacting with the Team and providing valuable suggestions and information relating to Orientation Training in the Ministry.

5. Dr. Khwaja M. Shahid, Director, ISTM has been a great source of strength and morale-booster by providing necessary guidance and assistance to the

Consultancy Team as and when required. The Team is grateful to Dr. Shahid for guidance in undertaking the task.

6. Finally, the Consultancy Team acknowledges the contribution and assistance provided by the supporting staff consisting of Smt. R. Mahalakshmi, PA, Smt. Smitha Viju, PA. and Shri Ravi Shankar, Peon. It was due to their untiring efforts, the Team could proceed as per the schedule for submitting this part of the Report.

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ABBREVIATIONS

NELP	New Exploration Licencing Policy
IEFS	International Energy Forum Secretariat
MMTPA	Million Metric Tonnes Per Annum
ATF	Aviation Turbine Fuel
PCRA	Petroleum Conservation Research Association
CII	Confederation of Indian Industry
STU	State Transport Undertaking
CBM	Coal Bed Methane
NGHP	National Gas Hydrate Programme
ONGC	Oil and Natural Gas Corporation Limited
NOC	National Oil Company
EOR	Enhanced Oil Recovery
IOR	Improved Oil Recovery
PDS	Public Distribution System
NCAER	National Council for Applied Economic Research
PEL	Petroleum Exploration Licences
OVL	ONGC Videsh Limited
OIL	Oil India Limited
PSI	Production Sharing Interest
RRVUNL	Rajasthan Rajya Vidyut Utpadan Nigam Limited
LPG	Liquefied Petroleum Gas
NLD	National Long Distance
IOCL	Indian Oil Corporation Limited
HPCL	Hindustan Petroleum Corporation Limited
BPCL	Bharat Petroleum Corporation Limited
IOCL	Indian Oil Corporation Limited
BRPL	Bongaigaon Refinery & Petrochemicals Limited
CPCL	Chennai Petroleum Corporation Limited
LIOC	Lanka IOC Limited
IOML	Indian Oil (Mauritius) Limited
DGH	Directorate General of Hydrocarbons
EIL	Engineers India Limited
BL	Balmer Lawrie & Company Limited
BLL	Biecco Lawrie Limited
BRPSE	Board for Restructuring of Public Sector Enterprises
OIDB	Oil Industry Development Board
OISD	Oil Industry Safety Directorate
CHT	Centre for High Technology
PPAC	Petroleum Planning & Analysis Cell
OCC	Oil Coordination Committee
APM	Administered Pricing Mechanism
IEEJ	Institute of Energy Economics, Japan
USTDA	US Trade Development Agency

CHAPTER I
INTRODUCTION

The Ministry of Petroleum & Natural Gas is concerned with exploration and production of oil and natural gas (including import of Liquefied Natural Gas), refining, distribution & marketing, import, export and conservation of petroleum products. The work allocated to the Ministry is given in Appendix - I. The names of the Public Sector Oil Undertakings and other organisations under the Ministry are listed in Appendix - II.

1.2. CRUDE OIL & NATURAL GAS PRODUCTION

During 2007-08, crude oil production in the country is expected to be about 34.763 million metric tones (MMT) and 31.67 billion cubic metres (BCM) of natural gas production as against the production of 33.99 MMT of crude oil and 31.74 BCM of natural gas in 2006-07.

During XI Plan period, crude oil production is likely to increase 24% as against actual crude oil production during X plan period. With exploration and development efforts made under New Exploration Licensing Policy (NELP), Natural Gas production in the country is likely to be doubled from the present level of gas production of about 90 million standard cubic metres per day (MMSCMD) by end of 11th Five Year Plan. In order to accelerate exploration in the country, more numbers of exploration blocks in onland, shallow-water, deepwater and frontier areas are to be offered during XI plan period resulting in 80% coverage of Indian sedimentary basin.

New Exploration Licensing Policy (NELP) provides an international class fiscal and contract framework for Exploration and Production of Hydrocarbons. In the first six rounds of NELP spanning 2000-2007, contracts for 162 exploration blocks have been signed.

1.3 INTERNATIONAL ENERGY FORUM SECRETARIAT (IEFS)

The International Energy Forum has 62 member countries. It has an Executive Board comprising of representative of 13 countries and two organizations IEA and OPEC. India is a member of the Executive Board of IEF. The annual contribution of the budget of IEFS are on calendar year basis and are voluntary. The total IEFS budget is apportioned amongst 62 countries based on the total trade ratio (import plus export). For the calendar year 2007 and 2008 this Ministry has contributed an amount of US$ 73,000 & US$ 79,000 respectively, as a membership fee.

1.4 BREFINING CAPACITY

The domestic refining capacity as on 1.4.2007 was 148.97 Million Metric Tonnes Per Annum (MMTPA). Availability of petroleum products during 2006-07 from domestic refineries and non-refineries was more than the domestic demand on overall basis demand except for Liquefied Petroleum Gas (LPG). In fact, the country is net exporter of petroleum products and products like Naphtha, Petrol diesel and Aviation Turbine Fuel (ATF) etc. were also exported during the year. However, MS/HSD of Euro-III grade had to be imported during the year in view of implementation of Auto Fuel Policy for upgraded fuels.

1.5 CONSERVATION OF PETROLEUM PRODUCTS

Petroleum Conservation Research Association (PCRA) has been active in undertaking energy conservation awareness campaigns through the Print, Electronic and Outdoor Media. These awareness campaigns are coupled with the direct services leading to improvement in efficient Energy utilization across all major sectors of the economy viz. transport, industry, agriculture, domestic and commercial. For enhancing the effectiveness and reach of PCRA's efforts, linkages have been developed with the "Bureau of Energy Efficiency" (BEE) and "Confederation of Indian Industry" (CII) where several joint programmes are planned and implemented.

PCRA team executes several activities like energy audits and institutional training programmes for industries, driver training programmes and Model Depot Project studies for the State Transport Undertakings (STUs) and other large fleet operators and conservation / safety workshops for the domestic sector. PCRA also bridges the gap between the users of energy and the energy efficient equipments available in our country by sharing their features during the Technical seminars and workshops, which are conducted for a wide spectrum of industries depending on their requirements. Efforts to showcase the results achieved are taken through participation in National exhibitions targeted for the industries and also through Kisan Melas where information for the farmers is conveyed through the medium of films and literature.

PCRA's efforts are focused towards sharing and motivating the energy users to adopt the conservation techniques and practices. This is achieved through various mass media campaigns, seminars, training programmes, printed literature, essay and quiz competitions, etc.

1.6 PLAN OUTLAY

The Tenth Five Year Plan (2002-2007) outlay for the Oil & Gas sector had been fixed at Rs.1,03,656.00 crore, against which the actual expenditure has been Rs.1,14,461.27 crore, which is 110.42% of the allocated outlay. The Eleventh Five Year Plan (2007-2012) outlay for the Oil & Gas sector has been fixed at Rs.2,29,072.60 crore, which is about 121% more than the Tenth Plan allocation. The Budget Estimate (BE) for the year 2008-09 has been proposed at Rs.48,031.26 crore. These outlays will be met from the internal and extra budgetary resources of the Public Sector Undertakings.

EARNINGS OF OIL PUBLIC SECTOR UNDERTAKINGS

The Profit Before Tax (PBT) and the Profit After Tax (PAT) earned by the Public Sector Undertakings in the Oil Sector during 2006-07 were Rs. 50,717.50 crore and Rs. 34,268.59 crore respectively. The PBT and PAT for 2007-08 are expected to be about Rs. 47,624.61 crore and Rs. 32,149.54 crore respectively.

NATURAL GAS

Natural Gas has emerged as one of the most preferred fuel due to its environmentally benign nature, greater efficiency and cost effectiveness. At present, the main producers of natural gas are Oil and Natural Gas Corporation Limited (ONGC), Oil India Limited (OIL) and the Joint Ventures of Panna Mukta & Tapti, and Ravva. Out of the total production of around 96 MMSCMD, after internal consumption, LPG extraction and unavoidable flaring, around 73 MMSCMD is available for sale to various consumers. In addition, around 7 MMTPA of re-gasified LNG (about MMSCMD) is also being supplied to domestic consumers. Gas produced by ONGC and OIL from the existing nominated blocks is sold at administered prices fixed by the Government. As against a total allocation of150 MMSCMD of gas, actual supply under APM is presently around 53 MMSCMD. However, availability of APM gas is expected to decline sharply over the coming years.

Exploration and Production (E&P) activities in the country have been intensified with the New Exploration Licensing Policy (NELP). Six bidding rounds have been successfully undertaken. A total of 162 blocks have been awarded. NELP – VII is in progress under which 57 blocks have been offered for bidding. The initial results have been very encouraging with gas discoveries in Cambay basin, KG offshore basin and Mahanadi basin. On account of these, it is projected that there would be a substantial increase in the production of natural gas in the coming years.

1.7 ATTEMPTS TO IMPROVE GAS AVAILABILITY

Government of India has adopted a multi-pronged strategy to augment gas supplies and bridge the gap between supply and demand for the domestic market. These cover:-
(a) Intensification of domestic E&P activities;
(b) Exploitation of unconventional sources like Coal Bed Methane (CBM);
(c) Underground coal gasification;
(d) Implementation of National Gas Hydrate Programme (NGHP) for evaluation of hydrate resources and their possible commercial exploitation;
(e) LNG Imports
(f) Gas sourcing through transnational gas pipelines.

The E&P activities have been intensified following the New Exploration Licensing Policy. So far, 6 bidding rounds have been successfully undertaken and NELP VII is underway. A total of 162 locks have been awarded in shallow water, deep waters and on land areas to PSUs, JVs and foreign companies till date. The initial results have been very encouraging, with gas discoveries in Cambay basin, KG offshore and Mahanadi basin. Similarly, significant oil reserves have been discovered in Rajasthan. It is expected that more hydrocarbon discoveries would materialize in the coming years as more and more investment is made in E&P activities.

1.8 POLICY FOR DEVELOPMENT OF NATURAL GAS PIPELINE

The Government of India has enacted 'The Petroleum and Natural Gas Regulatory Board Act, 2006'. The Board has been constituted on 25th June, 2007. The provisions of the Act (except Section 16) have been brought into force w.e.f. 1.10.2007. The Board would regulate refining, processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products and natural gas, excluding production of crude oil and natural gas.

1.9 LPG AS AUTO FUEL

Government has permitted use of LPG, being a clean and environmentally friendly fuel, as an auto fuel. For this purpose, MOP&NG along with the other concerned Ministries/Departments has formulated necessary legislative and regulatory framework for safe usage of LPG as an automotive fuel.

Hon'ble Supreme Court has mandated conversion of old vehicles to LPG/CNG in cities which are equally or more polluted than Delhi and as per Hon'ble Court the critically polluted cities are Ahmedabad, Agra, Bangalore, Chennai, Hyderabad, Kanpur, Kolkata, Lucknow, Mumbai, Pune, Surat and Sholapur.

1.10 ALLOCATION OF PDS KEROSENE TO STATES/UTs

(i) PDS kerosene has been allocated to States/ UTs on a historical basis. In accordance with the policy adopted by the Government of India in 2000, Kerosene (SKO) allocation for distribution under the Public Distribution System (PDS) was reduced every year beginning 2001-02 till 2003-04, taking into account the number of LPG connections released in each State/Union Territory. While the initial allotment for 2004-05 was based on the criteria adopted hitherto, additional allocations were made during the year to meet urgent emergent demand. For the years 2005-06 and 2006-07, allocations have been maintained at the level of 2004-05, including additional allocations made during that year. Allocations for 2007-08 have been maintained at the level of 2005-06 and 2006-07.

(ii) With a view to assessing the genuine demand of kerosene in different States/UTs, in ecember 2004, the Government commissioned a comprehensive study of the subject through the National Council for Applied Economic Research (NCAER). NCAER in their report, submitted in October, 2005, have estimated Kerosene demand in 22 States and 1 UT surveyed by them. NCAER has estimated that siphoning off of kerosene for nonhousehold purpose is 18.1%, diversion of kerosene from PDS to open market is 17.9% and diversion of kerosene to no card households is 2.6%. Total leakage is thus estimated at 38.6% of total sale of PDS kerosene.

(iii) On the basis of leakage of PDS kerosene, States have been classified in four categories viz.extremely high leakage (more than 50%), very high leakage (40 to 50%), high leakage (20 to 40%) and low leakage (less than 20%). The details are given in the statement at page 18.

(iv) Further, in order to formulate a long-term pricing policy, the government had constituted an Inter- Ministerial Committee under the Chairmanship of Dr. C. Rangarajan, Chairman, Economic Advisory Council to the Prime Minister to examine different aspects of pricing and taxation of petroleum products with a view to stabilizing/ rationalizing their prices, keeping in view the financial position of the oil companies, the investment needed in the sector, the need to conserve petroleum products, and establishing a transparent mechanism for the autonomous adjustment of prices by the oil companies. The Committee submitted its report on 17.2.2006. The Committee has inter alia recommended to restrict the subsidy on kerosene to BPL families only. The Government has accepted the recommendations of Dr. Rangarajan Committee Report and has decided 'in principle' that subsidy on PDS kerosene be limited to BPL families only. The proposal to work out the modalities to implement this decision and for rationalizing the allocation of PDS kerosene among States/UTs is under the consideration of the Government.

CHAPTER II
EXPLORATION AND PRODUCTION

2.1 CRUDE OIL & GAS PRODUCTION

Oil and Natural Gas Corporation Limited (ONGC) and Oil India Ltd. (OIL), the two National Oil Companies (NOCs) and private and joint-venturecompanies are engaged in the exploration and production (E&P) of oil and natural gas in the country. Crude oil production by the NOCs during 2007-08 is expected to be about 29.663 MMT as against the production of 29.11 MMT of crude oil during 2006-07.

In addition, there will be production of 5.1 MMT from the private and JV companies during 2007-08. Thus, total crude oil production in 2007-08 is expected to be about 34.763 MMT.

Total gas production during the year 2007-08 is expected to be about 31.67 BCM by ONGC, OIL and private/JV companies. The contribution of private/JV companies in gas production will be about 7.65 BCM in 2007-08.

Several measures taken to enhance hydrocarbon reserves and increase production are:

i) Major thrust on exploration in the new frontier areas like deep water and other geologically and logistically difficult areas and also ensuring continuation of exploration in the existing and unexplored areas.

ii) Development of new fields and additional development of the existing fields through implementation of Improved Oil Recovery (IOR) and Enhanced Oil Recovery (EOR) projects in major fields and medium size fields. These projects are being implemented by ONGC & OIL.

iii) Implementation of specialized technologies like extended reach drilling, horizontal drilling and drain hole drilling.

iv) Obtaining the services of international experts whenever considered necessary.

v) Maintenance of reservoir health through work over operations and pressure maintenance methods.

vi) Better reservoir delineation through three dimensional (3D) seismic survey of old fields.

vii) Optimization and redistribution of water injection.

viii) Infill drilling in the unswept areas of the reservoirs.

Consequent upon liberalization in petroleum sector, Govt. of India is encouraging participation of foreign and Indian companies in the exploration and development activities to supplement the efforts of national oil companies to narrow the gap between supply and demand. A number of contracts have been awarded to both foreign and Indian companies for exploration and development of fields on production sharing basis.

Since 1991, Government of India has been inviting bids on regular basis with several rounds of bidding carried out till operationalisation of New Exploration Licensing Policy (NELP).

2.2 THRUST AREAS FOR E&P SECTOR IN XI PLAN

The following thrust points, discussed under respective industry segment, merit consideration for the healthy overall development of the E&P industry.

- Increasing domestic production by attracting investments, both private and public, in the upstream sector. This needs to be attempted by involving industry participants in formulating an investor friendly E&P investment regime.
- Taking all steps to increase the production from ONGC's (Oil and Natural Gas Corporation) assets including their maturing fields.
- 80% exploration coverage during XI plan period
- Establishment of National Knowledge Hub during XI plan period.

2.3 ACQUISITION OF EQUITY OIL ABROAD

In view of unfavourable demand – supply balance of hydrocarbons in the country, acquiring equity oil and gas assets overseas is one of the important components of enhancing energy security. The Government is encouraging National Oil companies to aggressively pursue equity oil and gas opportunities overseas. Overseas production can be swapped, sold or brought to India refineries on commercial considerations. ONGC Videsh Limited (OVL) has participation in 35 projects with 50 blocks in 17 countries namely Vietnam (3 projects), Russia (1 project), Sudan (4 projects), Iran (1 project), Iraq (1 project), Libya (3 projects), Myanmar (5 projects), Syria (2 projects), Qatar (1 project), Egypt (2 project), Cuba (2 projects), Nigeria Sao Tome Principe JDZ (1 project), Brazil (1 project), Nigeria (2 projects), Colombia (4 project), Turkmenistan (1 project) and Congo (1 project). Out of the existing 35 projects, OVL is operator in 15 projects and joint operator in 2 projects in 10 countries. OVL produced about 7.95 Million Metric Tonnes (MMT) of oil and equivalent gas during the year 2006-07 from its assets abroad in Sudan, Vietnam, Russia, Syria and Colombia. OIL, IOC and GAIL are also engaged in acquiring overseas E&P assets. While OIL-IOC consortia have acquired blocks in Libya, Gabon, Yemen and Nigeria, GAIL has acquired interests in an offshore block in Myanmar.

2.4 NEW EXPLORATION LICENSING POLICY

Government of India approved the New Exploration & Licensing Policy (NELP) in 1997 and it became effective in February, 1999. Since then licenses for exploration are being awarded only through a competitive bidding system and National Oil Companies (NOCs) are required to compete on an equal footing with Indian and foreign companies to secure Petroleum Exploration Licences (PELs). Six rounds of bids have so far been invited under NELP, in which, 162 exploration blocks have been awarded. In addition, 28 exploration blocks were signed prior to NELP. Under NELP, 58 oil and gas discoveries in 17 blocks have already been made in ambay onland, North East Coast and Krishna-Godavari deepwater areas, for which, development plans by the operators, viz., Cairn, RIL and Niko are in progress.

With Exploration and development efforts made under NELP, Natural Gas production in the country is likely to be doubled from the present level of gas production of about 90 million standard cubic metres per day (MMSCMD) by end of 11th Five Year Plan.

India has an estimated sedimentary area of 3.14 million square kilometres, comprising 26 sedimentary basins, out of which, 1.35 million square kilometre area is in deepwater. At resent 1.38 million square kilometers are held under Petroleum Exploration Licenses in 18 basins by national oil companies viz. Oil & Natural Gas Corporation Limited (ONGC), OIL India Limited (OIL) and Private/Joint Venture company. Before implementing the New Exploration Licensing Policy (NELP) in 1999, 11% of Indian sedimentary basins was under exploration, which has now increased significantly.

2.5 OIL AND NATURAL GAS CORPORATION LIMITED (ONGC)

Oil & Natural Gas Commission (then Commission) was established on 14th August, 1956 as a statutory body under Oil & Natural Gas Commission Act (The ONGC Act), for the development of petroleum resources and sale of petroleum products. ONGC was converted into a Public Limited Company under the Companies Act, 1956 and named as "Oil and Natural Gas Corporation Limited" with effect from February 1, 1994. The Government disinvested around 10% of the equity shares of ONGC in March 2004 through a public offer in the domestic capital market at Rs. 750 per share. After the above disinvestment, the shareholding of the Government in ONGC came down to around 74.15%. At present, paid-up equity capital has increased to Rs. 21,388.73 crore after issuing bonus shares in ratio of one bonus share for every two shares held.

2.6 Achievement

ONGC posted a net profit of Rs. 14074.55 Crore during first nine months (April to December 2007) of 2007-08 as compared to Rs. 12961.28 Crore for the corresponding period of 2006-07. The profit is after sharing the subsidy/underrecoveries of Rs. 13528 Crore during 2007-08 (up to December 2007).

2.7 ONGC VIDESH LIMITED (OVL)

ONGC Videsh Limited (OVL), a wholly owned subsidiary of ONGC, was incorporated as Hydrocarbons India Limited on March 5, 1965 with an initial authorised capital of Rs. 5 Lakhs, for the business of international exploration and production. Its name was changed to ONGC Videsh Limited on June 15, 1989. The authorised and paid-up share capital of OVL as on March 31, 2007 was Rs. 1,000 crore. The primary business of the company is to prospect for oil and gas abroad. This includes acquisition of oil and gas fields in foreign countries as well as exploration, production, transportation and sale of oil and gas. OVL has presence in 17 countries. It has 37 oil and gas projects. OVL has production of oil and gas from Sudan, Vietnam, Syria, Russia and Colombia. Block BC 10 in Brazil is currently under development with production expected to begin in 2009-10. Block A-1 and A-3 in Myanmar, North Ramadan Block and NEMED in Egypt, Najwat Najem Structure in Qatar and Farsi Offshore Block in Iran have discoveries and appraisal work is being carried out after which the fields shall be put on development. The remaining projects are in exploration phase.

OVL started production of oil and gas in the year 2003 and achieved production of oil and oil equivalent gas (O+OEG) of 7.952 MMT in 2006-07 as compared to 6.339 MMT in 2005-06. The consolidated gross revenue of OVL during the financial year 2006-07 stood at Rs. 11,901 crore registering 46% increase from last year's gross revenue of Rs. 8,171 crore. During 2006-07, the consolidated profits (PAT) were at Rs. 1,663 crore, against Rs. 901 crore for 2005-06 registering 85% increase.

Further, OVL is pursuing acquisition of various oil and gas exploration and production opportunities in Central Asia, Latin America, Africa, Middle East and South East Asia, which are at different stages.

2.8 OIL INDIA LIMITED (OIL)

OIL INDIA LIMITED (OIL), a Government of India Enterprise, under the administrative set-up of Ministry of Petroleum and Natural Gas, is engaged in the business of exploration, production and transportation of crude oil and natural gas.

The authorized capital of the company is Rs. 500.00 crores and the paid up capital of the company is Rs. 214.00 crore.

OIL produces crude oil and natural gas from its oilfields in Assam and Arunachal Pradesh, non-associated gas from its fields in western Rajasthan and processes LPG from the natural gas in Assam. The Company presently has operational areas in Assam, Arunachal Pradesh, Mizoram, Orissa, Uttar Pradesh, Uttarakhand and Rajasthan in the country. OIL is operating in 19 nominated ML and 19 nominated PELs. The Company has acquired participating interest in a total of 21 NELP blocks up to the end of NELP-VI bidding round with the right of Operatorship in respect of 12 blocks. The Company also holds Participating Interests (Pis) in another four Pre-NELP JV blocks in India and Production Sharing Interest (PSI) in one Joint Venture Contract with other partners in Arunachal Pradesh.

OIL is presently active overseas in seven countries, viz.Libya, Gabon, Iran, Nigeria, Yemen, Sudan and Bangladesh, pursuing various upstream E&P activities. In addition, the Company is continuously scouting for suitable E&P opportunities in other countries like Syria, Indonesia, Oman, Kazakhastan, Russia, etc., either alone or with suitable partners.

OIL owns and operates a trunk crude oil pipeline in the North East region of the country for transportation of crude oil produced by OIL as well as ONGC including ONGCL's other partners like CANORO in the region to feed Numaligarh, Guwahati and Bongaigaon refineries. OIL also own and operates a branch line to feed Digboi refinery. The Company continues reverse pumping of RAVVA crude to Bongaigaon refinery through its existing Barauni- Bongaigaon trunk pipeline. The natural gas produced in Assam is sold to different customers, viz. BVFCL, APGCL, NEEPCO, IOC (AOD), APL and nearby tea gardens. The non-associated gas produced by the Company in Rajasthan is sold to Rajasthan Rajya Vidyut Utpadan Nigam Limited RRVUNL). OIL also produces Liquefied Petroleum Gas (LPG) in its plant at Duliajan, Assam.

2.9. PROGRESS OF PROJECTS:

(i) Domestic

The following major project related to regular E&P activities is at various stages of mplementation:

Sl.No.	Name of the Project/Location	Approved Cost (Rs. In Crores)	Status
1.	Product pipeline from Numaligarh to Siliguri	468.92	1. Laying of 396 km pipeline completed. Numaligarh to Siliguri 7 river crossings by micro- tunnelling mode is to be completed 2. Project is likely to be completed in 2007-08.

(ii) Overseas Projects

Details of Overseas projects are as under:

a) Exploration Service Contract – Farsi Offshore Block

OIL has 20% Participating Interest (PI) along with IOC (40%) and ONGC- Videsh Ltd. (40% and Operator) in the block. The consortium drilled / completed 4 wells, where crude oil was discovered in 2 wells and gas in one well. Study to assess the commerciality of oil discoveries is currently under progress.

b) Product Pipeline, Sudan :

The construction of the 741 km long product pipeline by OVL was completed in August, 2005, ahead of scheduled time and handed over to the Ministry of Energy and Mines (MEM), Sudan. OIL has 10% PI in the Sudan Product Pipeline project.

* Horizontal wells drilled during the year resulted in significant increase of crude oil production.
* During the year, OIL executed Gas Supply Agreement with M/s. Brahmaputra Cracker and Polymer Ltd for supply of gas for feedstock and fuel to Assam Gas Cracker Project.

c) Block 86, Libya :

OIL is having 50% PI and the Operator in the Block and IOC is partner with 50% PI, awarded in EPSA IV Bid Round 1 in the year 2004. OIL has since acquired 1,787.88 GLK (Ground Line Kilometre) of 2D seismic data. Processing and interpretation of 2D seismic data in progress.

d) Block -102(4), Libya :

OIL is having 50% PI and the Operator in the block and the other partner is IOC with 50% PI, awarded in EPSA IV Bid Round 2 in the year 2006. 1,278.80 GLK of 2D seismic data was acquired in the block. Currently processing/ interpretation is in progress. OIL plans for 700 sq. km. of 3D seismic survey in both blocks 86 and 102/4.

e) Block – Shakthi, Republic of Gabon:

OIL signed farm – in – agreement on 17.04.2006 for acquiring 45% PI (with Operatorship) in the block "Shakti" from M/s Marvis Pte. Ltd. Other parties in the block are IOC (with 45% PI) and Marvis Pte Ltd (with 10% PI). OIL carried out 36,412 km of aero-magnetic survey. Processing/interpretation of the data completed. Actions are in hand for acquisition of 1,000 GLK of 2D seismic data in the block.

f) Block OPL 205, Nigeria:

OIL has signed Share Purchase Agreement (SPA) and Shareholders Agreement (SHA) on 31.08.2006 for acquiring 25% equity shares of Suntera Nigeria 205 Limited from M/s Suntera Resources Limited. Suntera Nigeria 205 Limited is a Nigerian company having 70% interest in onshore Exploration Block OPL 205, Nigeria. One well was drilled by the operator Suntera Nigeria 205 Ltd. in December, 2007, but no commercial hydrocarbon discovery was made.

g) Block 82 & 83, Yemen:

OIL (with 15% PI) has been awarded Blocks nos. 82 and 83 in the year 2006 in the 3rd Bidding Round along with its consortium partners – MEDCOENERGI (45% PIOperator), Kuwait Energy Company (25% PI) and IOC (15% PI). PSCs are awaiting the approval of Government of Yemen.

h) Area 95, 96, Libya :

The consortium led by M/s. Sonartrach, Algeria with PI of 25% each by OIL and IOCL was awarded onland area comprising of 4 blocks in the recently concluded Libyan Exploration Gas Bid Round – IV, 2007

2.10 GAIL (INDIA) LIMITED

GAIL (India) Limited, India's principal Gas Transmission and Marketing Company, was created in 1984 with the objective of accelerating and optimizing the effective and economic use of natural gas and its fractions to the benefit of national economy. In line with core objective of its incorporation, GAIL has, over the years, developed natural gas infrastructure for sustained development of gas market in the country. GAIL, in the last two decades of its existence, has created a sizeable natural gas market in the country and presently markets around 25 BCM of Natural Gas. GAIL handles around 28 BCM of Natural Gas through its Transmission Network. Currently, GAIL's market share in gas transmission and marketing is 79% and 70% respectively.

2.11 Joint Ventures Projects of GAIL

GAIL has formed a number of Joint Venture Companies for city gas distribution as also in other sectors. GAIL has plans of developing CNG infrastructure across the country as well as abroad. The domestic Joint Venture Companies are as under:

(i) MAHANAGAR GAS LIMITED (MGL):

MGL, a Joint Venture with British Gas (BG) and Government of Maharashtra, was incorporated in May 1995 and has its operations in Mumbai and its suburbs. GAIL holds 49.75% stake in the Company, with an investment of Rs.44.45 crores.

(ii) INDRAPRASTHA GAS LIMITED (IGL):

IGL, a Joint Venture with Bharat Petroleum Corporation Limited (BPCL) and Government of National Capital Territory (NCT) of Delhi, was formed in December 1998. GAIL holds 22.5% stake in the Company, with an investment of Rs.31.50 crores. IGL has its operations in Delhi. It is catering to the world's largest CNG bus fleet.

(iii) BHAGYANAGAR GAS LIMITED (BGL):

BGL is a Joint Venture with Hindustan Petroleum Corporation Limited (HPCL), incorporated in August 2003. GAIL holds 22.5% stake in the Company. BGL presently has its operations in Vijaywada and Hyderabad. An investment of Rs.9.99 crores has been made in the Company.

(iv) TRIPURA NATURAL GAS COMPANY LIMITED (TNGCL):

TNGCL is a Joint Venture of Tripura Industrial Development Corporation and Assam Gas Limited. GAIL acquired 29% equity stake in TNGCL in August 2005.

(v) CENTRAL U.P. GAS LIMITED (CUGL):

CUGL is a Joint Venture of GAIL and Bharat Petroleum Corporation Limited (BPCL). It was incorporated in February 2005 for implementation of City Gas Projects in Kanpur and other cities of Central UP. GAIL has 22.5% stake in the Company.

(vi) GREEN GAS LIMITED (GGL):

GGL is a Joint Venture Company of GAIL and Indian Oil Corporation Limited (IOCL). It was incorporated in October 2005 for implementation of City Gas Projects in Agra & Lucknow cities. GAIL has 22.5% stake in the Company.

(vii) MAHARASHTRA NATURAL GAS LIMITED (MNGL):

MNGL is a Joint Venture of GAIL and Bharat Petroleum Corporation Limited (BPCL). It was incorporated in January 2006 for implementation of City Gas Projects in Pune and other cities of Maharashtra(excluding Mumbai). GAIL has 22.5% stake in the Company.

(viii) AVANTIKA GAS LIMITED (AGL):

AGL, a Joint Venture with Hindustan Petroleum Corporation Limited, has been incorporated on 7th June, 2006 for City Gas Distribution projects in the State of Madhya Pradesh.

(ix) BRAHMAPUTRA CRACKER &POLYMER LIMITED:

This Joint Venture Company, with GAIL as the main promoter with equity participation of 70% and OIL, NRL and Assam Industrial Development Corporation (Government of Assam) holding 10% equity each, has been incorporated on 8.01.2007. The company has been named as 'Brahmaputra Cracker and Polymer Limited' (BCPL). Project Office has been opened in Guwahati on 16.6.2006. Land acquisition process has been started by the Government of Assam, which is likely to be completed by March 2007. Oil Industry Development Board (OIDB) has granted in principle approval for a term loan of Rs.327 crores. Discussions are on with the financial institutions/banks for raising debt.

(x) RATNAGIRI GAS AND POWER PRIVATE LIMITED (RGPPL):

GAIL has been pursuing opportunities of Mergers and Acquisitions (M&A) in various sectors. A noteworthy outcome in this direction has been the acquisition of assets of the Dabhol Power project by a new Joint Venture Company, namely, Ratnagiri Gas and Power Private Limited (RGPPL), where GAIL has 28.5% participating interest. The company has paid Rs.500 crores as advance pending allotment of equity shares. It is an integrated project, i.e., gas based power plant of 2,184 MW and a LNG import and regasification facility with a capacity of 5 MMTPA. Commissioning of this project will offer an opportunity to the Company to import 2.9 MMTPA of LNG for merchant sales.

(xi) PETRONET LNG LIMITED (PLL):

PLL is a joint venture company between GAIL, BPCL, IOCL, ONGCL, Gaz De France and ADB. GAIL holds 12.5% equity at an investment of Rs.98.75 crores. PLL was formed for importing LNG and setting up of LNG import and Regasification facilities. PLL has finalized a longterm LNG supply contract with Ras Gas, Qatar for import of 7.5 MMTPA; the present supply under the contract is 5 MMTPA. The Dahej terminal is under operation at its full capacity of 5 MMTPA. It would be expanded to 10 MMTPA.

CHAPTER III
REFINING

3.1 REFINING CAPACITY

The present refining capacity in the country is 148.97 Million Metric Tonnes Per Annum (MMTPA) comprising of 105.47 MMTPA by PSUs and 43.50 MMTPA by private sector. At present, there are 19 refineries operating in the country, out of which 17 are in public sector and two in private sector. Out of the 17 Public Sector refineries 7 are owned by Indian Oil Corporation Limited (IOCL), 2 each by Chennai Petroleum Corporation Limited (a subsidiary of IOCL), Hindustan Petroleum Corporation Limited (HPCL), Bharat Petroleum Corporation Limited (BPCL) and Oil and Natural Gas Corporation Limited, 1 each by Numaligarh Refinery Limited (a subsidiary of BPCL) and Bangaigaon Refinery and Petrochemicals Ltd. (a subsidiary of IOCL). The private sector refineries belong to Reliance Industries Limited and Essar Oil Limited.

3.2 CHENNAI PETROLEUM CORPORATION LIMITED (CPCL)

Chennai Petroleum Corporation Limited (CPCL) formerly known as Madras Refineries Limited was formed as a joint venture in 1965 between the Government of India (GOI), AMOCO India Inc., U.S.A. and National Iranian Oil Company (NIOC) having a share holding in the ratio 74%: 13%: and 13% respectively. In 1985, AMOCO disinvested in favour of GOI and the shareholding percentage of GOI and NIOC stood revised at 84.62 and 15.38 respectively. Later, GOI disinvested 16.92% of the paid up capital in favour of Unit Trust of India, Mutual Funds, Insurance Companies and Banks on 19th May 1992, thereby reducing its holding to 67.7%. A public issue of CPCL shares was also made in 1994. As a part of the restructuring steps taken up by the Government of India, Indian Oil Corporation Limited (IOCL) acquired equity from GOI in 2000-01. Currently, IOCL holds 51.88% while Naftiran Inter-trade Company Limited (an affiliate of NIOC) continued its holding at 15.40%. CPCL has two refineries, with a combined refining capacity of 10.5 million metric tonnes per annum (MMTPA). The Manali Refinery in Chennai has a capacity of 9.5 MMTPA and is one of the most complex refineries in India with Fuel, Lube, Wax and Petrochemical feedstocks production facilities. The second refinery at Cauvery Basin, Nagapattinam was set up initially with a capacity of 0.5 MMTPA in 1993 and later its capacity was enhanced to 1.0 MMTPA in 2002.

3.2.1 Physical Performance

During the year 2006-07, the company processed 10.40 Million Metric Tonnes (MMT) of crude oil, which was higher than the figure of 10.36 MMT in the previous year. The company achieved MoU Excellent rating for its overall performance during the year 2006-07.

3.2.2 Financial Performance

During the year 2006-07, the company achieved a turnover of Rs.29,349 crore as against Rs.25,408 crore in the previous year. The profit before tax was higher at Rs.881.00 crore as against Rs.723.00 crore. The profit after tax was Rs.565.27 crore as compared to Rs.480.96 crore in the previous year. The company maintained the dividend rate of 120% for the year 2006-07.

3.3 Bongaigaon Refinery & Petrochemicals Limited (BRPL)

BRPL was incorporated on February 20,1974 , with the objective of installation of Refinery having crude processing capacity of 1 MMTPA and a Petrochemical Complex consisting of Xylene, Dimethyl Terephthalate (DMT) and Polyester Staple Fibre (PSF) units. The crude processing capacity of the Refinery was enhanced to 2.35 MMTPA in 1995-96 by commissioning of its Refinery Expansion Units. The authorized equity capital and the paid-up capital of the Company is Rs.200 crore and Rs.199.82 crore respectively. The Government of India disinvested its equity share of 74.46% to Indian Oil Corporation Limited (IOCL) in March, 2001 and hence BRPL became the subsidiary Company of IOCL on 29 March, 2001.

3.3.1 Physical Performance

The refinery processed 2.067 million metric tones (MMT) of crude oil during the year 2006-07 as against 2.356 MMT in the previous year. LPG yield of 2.32% on crude throughput during the year 2006-07 was better than the previous highest of 2.25% achieved in the year 2003-04. The company achieved lowest ever Fuel & Loss of 5.40% on crude throughput during the period 2006-07.

3.3.2 Financial Performance

The Company earned a net profit of Rs.185 crore in 2006-07. The Company expects to earn an estimated net profit of Rs.314 crores for the year 2007-08. The Company achieved highest ever turnover of Rs.6426 crore during the year 2006-07.

3.3.3 On going projects

The following two projects are presently under implementation:

(i) Diesel Hydro treatment (DHDT) Project: This project will enable the Company to achieve the Euro – III quality specification of Diesel which will become applicable from April, 2010 as per Auto Fuel Policy of the Government. The estimated cost of this project is Rs.1431.91 crore. The project is likely to be completed by October, 2009.

(ii) Motor Spirit Maximization Project: This project will reduce production of demand limited naphtha and increase the production of high value Motor Spirit. The estimated cost of this project is Rs.44.56 crore. The project is likely to be completed by August, 2008.

3.4 NUMALIGARH REFINERY LIMITED (NRL)

Numaligarh Refinery, Popularly known as "Assam Accord Refinery" had been set up as a grass-root refinery at Numaligarh in the District of Golaghat (Assam) in fulfillment of the commitment made by Government of India in the historic "Assam Accord", signed on 15th august, 1985 for providing the required thrust towards industrial and economic development of Assam. Both the Refinery and its adjacent Marketing Terminal were completed within the approved project cost of Rs.2724 crore. Commissioning process of Numaligarh Refinery was completed in June 2000 and commercial production commenced from 1st October, 2000.

3.4.1 Physical Performance

During the year 2006-07, the crude throughput was 2504 TMT. During April-Sept. 2007, the crude throughput was 1246 TMT. Distillate yield of 84.74% was achieved by NRL during 2006-07.

3.4.2 Financial Performance

During the period 2006-07, the Company registered a profit (After Tax) of Rs.568.80 crore. Sales Turnover during the period 2006-07 was Rs.7930.327 crores. The Company has paid Rs.139.77 crore as dividend for the year 2005-06.

3.5 MANGALORE REFINERY & PETROCHEMICALS LIMITED (MRPL)

Mangalore Refinery and Petrochemicals Limited (MRPL), first joint venture company for setting up a crude petroleum Refinery in India was formed in 1987 jointly by Hindustan Petroleum Corporation Limited alongwith Indian Rayon and Industries Limited and its associate companies (A.V. Birla Group). The refinery project was commissioned in March, 1996 with an actual capacity of 3.69 MMTPA. The expansion project of MRPL, having capacity of 9.69 MMTPA, was commissioned in April, 2001. The refinery is located at Mangalore on the western coast of India, primarily conceived to maximize middle distillates, such as kerosene and diesel. The refinery is designed to process light to heavy and sour to sweet crude. The performance of MRPL started deteriorating after dismantling of APM for refineries in April, 1998 and the Company came very close to becoming a sick company by 2002-03. With the approval of the Government, ONGC acquired the entire stake of Aditya Birla Group in MRPL for Rs.59.43 crore and also infused additional equity capital of Rs.600 crore in March, 2003 as part of the approved debt restructuring plan. With this, ONGC acquired 51% stake in the equity of MRPL. Thus, MRPL became a Government company within the meaning and scope of Section 617 of the Companies Act, 1956 and also a subsidiary company of ONGC. In June / July 2003, ONGC acquired 35.80 crore equity shares held by banks and financial institutions issued against part conversion of their loans in terms of debt restructuring plan, increasing its stake in MRPL to 71.62%. MRPL is the first refinery in India to produce Euro-III High Speed Diesel (HSD) and Euro-III Motor Spirit (Petrol).

3.5.1 Physical Performance

During the year 2006-07, the Company processed highest ever throughput of 12.54 million metric tones (MMT) of crude oil achieving 130% capacity utilization, produced 11.712 MMT of finished goods and dispatched 11.44 MMT of finished goods. Yield for the year was 93.46%, comprising distillates 72.75% and heavy ends 20.71%. The fuel & loss of the refinery was 6.54%. The Company's Mixed Xylene Plant to recover maximum quantity of Xylene (Ortho, Para & meta xylenes and also ethyl benzene) using distillation process was commissioned on 17.11.2006. The Company's Isomerization Unit consisting of Mixed Light Naphtha Hydrotreater (LNHT), Bensat, Penex (LNHT/ DeP/Penex) process unit was commissioned on 30.12.2006.

3.5.2 Financial Performance

During the financial year 2005-06, the Company earned a net profit of Rs.525.52 crore. Taking an overall prudent view, and the forthcoming investment in expansion programmes, the Company declared a dividend of 8%.

CHAPTER IV

MARKETING AND DISTRIBUTION

4.1 INDIAN OIL CORPORATION LIMITED (IOCL)

Indian Oil Corporation Ltd. (IOC) is the country's largest commercial enterprise with a sales turnover of Rs. 2,20,779 crore and profit after tax of Rs. 7,499 crore for the financial year 2006- 07. It is the first and the only company in the country to achieve the landmark of crossing Rs. 2,00,000 crore in turnover. IOC is also the 20th largest petroleum company in the world. It is the first and the highest ranked Indian company in the Fortune 'Global 500', placed at 135th position by sales.

4.2 Physical Assets

IOCL owns and operates 7 out of India's 19 refineries with a refining capacity of 47.35 million metric tones per annum (MMTPA) (31.8% industry share). IOC Group has 3 additional refineries, 2 of Chennai Petroleum Corporation Ltd.(10.5 MMTPA) and 1 of Bongaigaon Refinery & Petrochemicals Ltd. (2.35 MMTPA). Combined refining capacity of the IOC group is 60.2 MMTPA (40.4% industry share). IOC has the largest network of cross-country crude oil and product pipelines, spanning about 9,300 KM. With a capacity of 61.7 MMTPA, it holds a share of 66% of downstream industry capacity in pipelines. The company has an extensive marketing network of over 33,800 touch points (55% industry share) to service customers across the length and breadth of the country. IOC operates the largest and widest network of retail outlets, numbering about 17,100. It reaches Indane cooking gas to the doorsteps of about 49 million households. The company is truly the leader in refining, marketing and pipeline transportation in the country. It also has in its fold one of the best R&D Centres in Asia.

IOC added 1202 retail outlets in 2006-07, including 743 rural format Kisan Seva Kendras (KSKs), widening its reach to rural India. The KSKs represent a satisfying success story for IOC in its efforts to fuel development and help improve the living conditions of the rural masses. The facilities at KSKs inter alia include availability of seeds, pesticides, fertilizers, provisions, farm equipment, medicines, Nutan stoves, banking help including rural ATMs, communication etc. under one roof.

4.3 SUBSIDIARIES

(a) Bongaigaon Refinery & Petrochemicals Limited (BRPL)

Consequent to the transfer of 74.46% equity shares of the government of India in BRPL to IOC in 2001, BRPL became its subsidiary.

The operation of BRPL has been greatly facilitated with the allocation of 1.50 MMTPA of Ravva crude ex Krishna-Godavari basin by the Ministry of Petroleum & Natural Gas.

BRPL recorded a turnover of Rs.6,425.96 crore as against Rs.6,288.64 crore in 2005-06. The profit after tax was higher at Rs.184.98 crore in 2006-07, registering an increase of approximately 6% as compared to Rs.174.76 crore in 2005-06.

In order to improve the diesel quality in line with Euro-III norms, BRPL is setting up a Diesel Hydrotreating unit at an anticipated cost of Rs. 1432 crore. The project is likely to be completed by October 2009.

(b) Chennai Petroleum Corporation Limited (CPCL)

With the transfer of equity shares by the Government of India to IOC as a part of its restructuring initiatives, IOC holds 51.88% equity share in CPCL. CPCL, with its two refineries at Manali and Nagapattinam in Tamil Nadu, processed 10.40 MMT of crude oil in 2006-07, which was slightly higher than the figure of 10.36 MMT in the previous year. Turnover during the year increased to Rs. 29,349 crore from Rs.25,408 crore in the previous year. The corresponding figures for profit after tax are Rs. 565.27 crore and Rs. 480.96 crore, respectively.

In order to promote clean energy and to contribute to the global movement in reducing greenhouse gas emissions, CPCL has implemented a Wind Power project of 17.6 MW capacity at a cost of about Rs. 90 crore. CPCL expects to earn approx. 32,000 carbon credits annually through this scheme.

Other major ongoing projects include setting up a Diesel Hydrotreating unit and capacity augmentation of the existing Catalytic Reformer unit for improvement in HSD and MS quality to meet Euro-IV norms at Manali refinery, and capacity augmentation of the refinery from 9.5 to 11.2 MMTPA.

(c) Lanka IOC Limited (LIOC)

LIOC stood 3rd in terms of sales turnover among private companies in Sri Lanka for the financial year 2006-07, recording sales of approx. 490 TKL of petroleum products, with a turnover of SLR 32,796 million (INR 1,405 crore).

LIOC also commenced bunker fuel sales at Trincomalee Port during May 2007 and is gearing up to extend bunker fuel sales at Colombo Port. LIOC is awaiting the final approval from Government of Sri Lanka for developing 75 new retail outlets.

Since November 2007, LIOC has started commercial production of lubricants at its newly set up Lube Blending Plant (LBP) of 18 TMTPA capacity at Trincomalee, at an investment of SLR 500 million (INR 17.72 crore). LIOC currently has a market share of 13% in the lubricants market in Sri Lanka.

(d) Indian Oil (Mauritius) Ltd. (IOML)

IndianOil (Mauritius) Ltd., a wholly-owned subsidiary company of IOC, holds 19% of the market share in POL products in Mauritius. It sold about 163 TKL of petroleum products in the year 2006-07, generating a gross turnover of Rs. 2,97.1 crore. The profit after tax for the year was Rs. 5.6 crore.

With significant presence in aviation fuel business, IOML holds a market share of 38% in the aviation fuel business. It also has 25% equity in the new petroleum terminal at the Sir Seewoosagar Ramgoolam International Airport built at a cost of US$ 16 million, partnering Shell, Caltex-Cheveron and Total.

A comprehensive petroleum laboratory for testing all fuels and lubricants was commissioned in March 2007. The laboratory is the first full-fledged petroleum products testing laboratory in Mauritius and has already gained international accreditations such as ISO 9001-2000.

(e) IOC MIDDLE EAST FZE, Dubai, U. A. E.

As part of its efforts to reach new markets, a wholly-owned subsidiary, IOC Middle East FZE was registered at Jebel Ali Free Trade Zone in UAE in April 2006 for blending and marketing of SERVO lubricants in the Middle East, Africa and CIS countries with an initial share capital of United Arab Emirates Dirham (AED) I million (Rs 1.26 crore). The company commenced operations during the year 2006-07 and achieved sales of 209 MT of finished lubes and 3854 MT of base oils, with a turnover of Rs. 17.60 crore.

4.4 HINDUSTAN PETROLEUM CORPORATION LIMITED

Hindustan Petroleum Corporation Limited (HPCL) is integrated Oil Company in India. It has two refineries producing a wide variety of petroleum products - one in Mumbai (West Coast) having a capacity of 5.5 MMTPA and other in Visakhapatanam (East Coast) with capacity of 7.5 MMTPA. The Corporation holds equity stake of 16.95% in Mangalore Refinery & Petrochemicals Limited, a state-of-the-art refinery at Mangalore with a capacity of 9 MMTPA. HPCL is also progressing towards setting up of 9 MMTPA capacity refinery in the state of Punjab with joint collaboration with M/s Mittal Investment. HPCL owns and operates the largest Lube Refinery in the country producing Lube Base Oils, having a capacity of 335,000 Metric Tones, Contributing over 40% of the country's total Lube Base Oil production.

During 2006-07, the two refineries of the Corporation achieved a combined crude throughput of 16.66 MMT. The throughput expected to be achieved during 2007-08 is 16.77 MMT. The total sales of petroleum products during the period 2006- 07 were 19.80 MMT. The total sales of petroleum products expected to be achieved during 2007-08 are 21.39 MMT. During the year 2006-07 the sales turnover was Rs. 97,603 crores and profit after tax was Rs. 1,571 crores. The sales turnover expected to be achieved during 2007-08 is Rs. 1,01,721 crores and profit after tax expected to be achieved during 2007-08 is Rs. 473 crores. The Board of Directors had recommended dividend of Rs. 709 crores for the year 2006-07.

During the period 2006-07, the Corporation commissioned 673 Retail Outlets and 44 LPG distributorships and released 11.36 lacs new LPG connections. During the period 2007-08, new Retail outlets and LPG distributorship expected to be commissioned is 550 and 100 respectively. The new LPG connections expected to be released during 2007-08 is 15.0 lacs.

4.5 BHARAT PETROLEUM CORPORATION LIMITED (BPCL)

BPCL is an integrated Oil Company engaged in refining of crude oil and marketing of petroleum products. It has also diversified into the upstream sector, manufacture and marketing of petrochemical feedstock. The Corporation has an all-India presence through its extensive marketing network.

The Corporation's employees presently number 13999. The Authorized Share Capital and Paidup Capital of the Company as on 31.12.2007 was Rs. 450 crore and 361.54 crore respectively. The shares of BPCL are listed on the Stock Exchanges at Mumbai and National Stock Exchange of India Ltd. During 2006-07, the two refineries at Mumbai and Kochi achieved a combined throughput of 19.78 million metric tones (MMT) . The throughput during 2007-08 is expected to be 20.7 MMT. During the year 2006-07, the All Products Sales were 23.45 MMT and the total sale of petroleum products during 2007-08 is expected to be 23.93 MMT. During the period 2006-07, BPCL commissioned 480 new retail outlets and 21 LPG distributorships. During 2007-08 the expected commissioning new retail outlet and LPG distributorships would be 815 and 51 respectively. The corporation released 11.93 lakh new LPG connections during 2006-07. During 2007-08, 16.9 lakh new LPG connections expected to be released. The profit after tax during 2006-07 was Rs. 1805.5 crore. The profit after tax during 2007-08 is expected to be Rs. 1327 crore (provisional).

CHAPTER V
OTHER UNDERTAKINGS /ORGANISATIONS

5.1 DIRECTORATE GENERAL OF HYDROCARBONS (DGH)

The Directorate General of Hydrocarbons (DGH) was established under the administrative control of Ministry of Petroleum & Natural Gas by Government of India Resolution in 1993. Objectives of DGH are to promote sound management of the oil and natural gas resources having a balanced regard for environment, safety, technological and economic aspects of the petroleum activity. DGH has been entrusted with certain responsibilities concerning the Production Sharing Contracts for discovered fields and exploration blocks, promotion of investment and monitoring of E&P activities including review of reservoir performance of major fields. In addition, DGH is also engaged in opening up of new/unexplored areas for future exploration and development of non-conventional hydrocarbon energy sources. Details of the main activities undertaken by DGH during 2007-08 (till December 2007) are as under:

5.2 ENGINEERS INDIA LIMITED (EIL)

Engineers India Limited (EIL) was established in 1965 to provide engineering and related technical services for petroleum refineries and other related projects. Over the years, it has diversified into and excelled in various fields. EIL has emerged as Asia's leading design, engineering and turnkey contracting company in Petroleum Refining, Petrochemicals, Chemicals & Fertilizers, Pipelines, Offshore Oil & Gas, Onshore Oil & Gas,Terminals & Storages, Mining & Metallurgy and Infrastructure. EIL provides a comprehensive range of project engineering services spanning from project feasibility, process design, detailed engineering, procurement, construction and project management through to supervisory assistance for commissioning and plant start-up.

EIL also undertakes projects on Lump sum Turnkey (LSTK) basis. It continues to play a significant role in the hydrocarbon and process industries, both in India and abroad. Engineers India is an ISO 9001:2000 accredited Company.

EIL has its head office in New Delhi, regional engineering offices in Chennai, Kolkata & Vadodara and a branch office in Mumbai. It has inspection offices at all major equipment manufacturing locations in India and a wholly owned subsidiary Certification Engineers International Ltd. (CEIL) for undertaking independent certification & third party inspection assignments. Outside India, EIL has an engineering office in Abu Dhabi, which is a hub for the Middle East , a marketing office in Saudi Arabia, inspection offices in London & Milan and a holly owned subsidiary , EIL Asia Pacific Sdn. Bhd.(EILAP) in Malaysia. The total manpower strength of the Company as on 31.12.2007 was 2708.

5.3 BALMER LAWRIE & COMPANY LIMITED (BL)

Balmer Lawrie & Co. Ltd. (BL) was established in 1867 as a Partnership Firm and was incorporated as Private Limited Company in 1924. It was subsequently converted into a Public Limited Company in the year 1936 with its Registered Office at Kolkata. The authorised capital, paid-up capital and reserves & surplus of the Company as on 31.3.2007 was Rs. 30 crore, 16.29 crore and 254.02 crore respectively.

The Company is a diversified, medium sized Company with operations spread throughout India and overseas. The main activities of the Company are classified into a number of Strategic

Business Units (SBU) viz., (i) Oil & Natural Gas Related (Industrial Packaging, Greases & Lubes and Performance Chemicals), (ii) Export Related including Infrastructure for Exports (Container Freight Station and Tea Blending & Packaging), (iii) Infrastructure and Services Related (Travel & Tours, Logistics Services and Engineering Technology & Services, and (iv) Research & Development Related (Engineering, Design & Development Center, Applications Research Laboratory and Product Development Centre). During the year 2007-08, the Company is expectedto manufacture 32 lakh barrels/drums. The Company is expected to produce 34,000 MT of Greases/ Lubricants during 2007-08, compared to 32,000 MT achieved during the period 2006-07. Similarly, the production of leather chemicals is estimated to be 4,6 00 MT during the year 2007-08. The total turnover of the Company is estimated at Rs. 1,400 crores in the year 2007-08. The profit after tax of Company was Rs. 70.22. crore during the year 2006-07, whereas the estimated profit after tax during the year 2007-08 is Rs. 72.50 crore.

5.4 BALMER LAWRIE INVESTMENTS LIMITED (BLIL)

Government of India, in view of its planned deregulation of oil and globalisation of the economy, decided to disinvest 33.58% of its total equity holding of 59.58% in IBP Company Limited (IBP) to a strategic partner with management control. Consequently, the shareholding of IBP, in its erstwhile subsidiary Balmer Lawrie & Company Limited (BL), was de-merged in favour of Balmer Lawrie Investments Limited (BLIL), which was incorporated on 20th September 2001 under the Companies Act, 1956, in which the President of India holds 59.67% of its total paid up equity capital. BLIL is under the administrative control of Ministry of Petroleum & Natural Gas having its Registered office at Kolkata. BLIL is a non-banking financial Company as defined under section 45-I(f) of the Reserve Bank of India Act, 1934. BLIL does not carry on any business except to hold 1,00,64,700 equity shares of Rs.10/- each of BL. BLIL has five non-executive Directors on its Board out of which two are independent in terms of listing requirements. BLIL does not have any employees except the Company Secretary who is deputed from BL. The Equity shares of BLIL are under compulsory demat mode and are listed in two Stock Exchanges across the country, viz., Kolkata & Mumbai Stock Exchanges. The Authorised share capital of BLIL is Rs. 25 crore. The Issued and Subscribed capital of the Company is Rs. 22.19 crore. The total turnover of the Company is estimated at Rs. 1,475.88 lakhs in the year 2007-08. The profit after tax of Company was Rs. 928.72 lakhs during the year 2006-07, whereas the estimated profit after tax during the year 2007-08 is Rs. 1396.13 lakhs.

5.5 BIECCO LAWRIE LIMITED (BLL)

Biecco Lawrie Limited (BLL), a Government of India Enterprise, under the administrative control of the Ministry of Petroleum & Natural Gas (MOP&NG), was established in 1919 and became a Government Company in 1972. This is a medium sized Engineering Unit with diversified activities having two factories located at Kolkata. As on 31.3.2007, the Company has an Authorized Capital of Rs. 50 crore while the Issued, Subscribed and Paid-up Capital is Rs. 42 crore. The President of India and the Oil Industry Development Board (OIDB) hold 57.37% and 41.85% respectively, of the Equity Share Capital.

The Company had drawn up its Restructuring Plan to ensure sustainable performance and growth of the Company. The Restructuring Plan of BLL was placed by the Government before the Board for Restructuring of Public Sector Enterprises (BRPSE) for their consideration. BRPSE has since submitted its recommendations which are under active consideration of the Government.

5.6 OIL INDUSTRY DEVELOPMENT BOARD (OIDB)

Objectives of the Oil Industry Development Board (OIDB)

The Oil Industry (Development) Act, 1974 was enacted following successive and steep increase in the international prices of crude oil and petroleum products since early 1973, when the need of progressive self-reliance in petroleum and petroleum based industrial raw materials assumed great importance.

5.7 OIL INDUSTRY SAFETY DIRECTORATE (OISD)

The Oil Industry Safety Directorate (OISD) assists Safety Council under Ministry of Petroleum & Natural Gas (MOP&NG) headed by Secretary, P&NG as Chairman and includes Additional / Joint Secretaries, Advisors in MOP&NG, Chief Executives of all Public Sector Undertakings (PSUs) under the Ministry, Chief Controller of Explosives (CCE), Advisor (Fire) of the Govt. of India, DGMS and the Director General of Factory Advice Service & Labour Institute etc. as members.

5.8 CENTRE FOR HIGH TECHNOLOGY (CHT)

Centre for High Technology (CHT) was established in 1987 as a specialized agency of the oil industry to assess futuristic requirements, acquire develop and adopt technologies in the field of refinery processes, petroleum products, additives, storage and handling of crude oil, products and gas. CHT acts as the Technical Wing of the Ministry for implementing the scientific and technological programmes. Its major function include assessment of technology requirement as also operational performance of the refineries specifically from the point of view of energy utilization, acts as focal point of oil industry for coordinating and funding of research work in refining and marketing areas, exchange of information & experience, co-ordinate and pursue the programmes of "Scientific Advisory Committee on Hydrocarbons".

5.9 PETROLEUM PLANNING & ANALYSIS CELL (PPAC)

The Petroleum Planning & Analysis Cell (PPAC) was created w.e.f. 1st April 2002 after dismantling of the Administered Pricing Mechanism (APM) in the petroleum sector and abolition of the erstwhile Oil Coordination Committee (OCC). The Governing Body under the chairmanship of Secretary (PNG) and senior officials of MOPNG and Chief Executives of major oil and gas PSUs as members provides necessary supervision, guidelines in the functioning of PPAC. It is attached to Ministry of Petroleum & Natural Gas (MOP&NG) to assist the Government, inter alia, in the discharge of following functions:

1. Administration of subsidy on PDS Kerosene and domestic LPG and freight subsidy for farflung areas.
2. Maintenance of information data bank and communication system to deal with emergencies and unforeseen situations.
3. Analyzing the trends in the international oil market and domestic prices.
4. Forecasting and evaluation of petroleum import and export trends. During the year, the following important activities and initiatives were taken by PPAC:

During the year, the following important activities and initiatives were taken by PPAC:

(i) Subsidy claims of oil companies under the government schemes on (a) domestic LPG, (b) PDS Kerosene, and freight subsidy for far flung areas were processed by PPAC and a total amount of Rs.2606 crore under the above schemes were disbursed to the oil companies for 2006-07.

(ii) In view of the growing importance of natural gas sector in the energy economy of the country as well as abroad, the methodology for collection of data on natural gas was formulated in consultation with the industry for timely collection, compilation and dissemination of data and statistics on natural gas. The relevant data are now being hosted in PPAC website www.ppac.org.in)

(iii) In an open and globalised hydrocarbon sector like India's, the quality of data and statistics is of fundamental importance for effective policymaking. The Ministry of Petroleum and Natural Gas, Government of India has entered into an Arrangement/MOU with the Department of Energy, Government of U.S.A. on 9th February, 2006 for cooperation in the exchange of information relating to the hydrocarbon sector. PPAC as the designated agency of the Ministry of Petroleum & Natural Gas and the Energy Information Administration (EIA) of the U.S. Deptt. of Energy are tasked with developing cooperative activities under the Arrangement. During the year, PPAC organized workshops on improvement of data quality in the oil and gas sector in India including participation of the PPAC delegation in the workshop organized by EIA in its headquarter in Washington D.C. during October 2007. Subsequently, PPAC has initiated the process of formulation of a comprehensive data quality guidelines and forecasting techniques.

(iv) As an integral part of the India-Japan Energy Dialogue, PPAC is engaged in conducting joint studies with the Institute of Energy Economics, Japan (IEEJ) under the provisions of an MoU signed in February 2006. During 2007-08, a joint study on 'Stabilization of Asian Natural Gas Market' has been taken up by PPAC and IEEJ.

(v) Under the Agreement signed between PPAC, acting through the Government of India, and US Trade Development Agency (USTDA), acting through the Government of U.S.A. on 30 June 2006, USTDA has agreed to provide a grant of US $6,90,000 for undertaking a study of National Gas Grid in India. The process of selecting a US firm to undertake the project is nearing completion during March 2008 and the study will commence thereafter.

CHAPTER VI
CONSERVATION OF PETROLEUM

6. 1 CONSERVATION OF PETROLEUM PRODUCTS

Petroleum Conservation Research Association (PCRA), on behalf of Government of India, Ministry of Petroleum & Natural Gas has been working for the development and deployment of strategies for energy conservation and environment protection in the major sectors of economy, viz., Industry, agriculture, transport, domestic and commercial. The oil crisis of 1970s brought into sharp focus the need for conservation of petroleum products due to the enormous hike in country's import bill. The Government in response set up the Petroleum Conservation Action Group (PCAG) in 1976, which was subsequently reconstituted as PCRA in 1978. Over the years, new developments have shaped and given thrust to PCRA's programs and activities.

6.2 PCRA's Activities – An Overview Oil and Gas Conservation Fortnight 2008

Oil and Gas Conservation Fortnight (OGCF) is a significant annual event of the Ministry of Petroleum and Natural Gas, which is organized from 15th January to 31st January every year. During the period, a large number of activities like rallies, marathons, human chain, technical seminars, symposiums, quiz and painting competitions etc. are arranged by PCRA in coordination with Oil Companies for the propagation of oil and gas conservation message amongst the major consuming sectors namely, Transport, Industrial, Agricultural, Household and Commercial. OGCF 2008 took off with impressive Inaugural Functions all over India on 15th January, 2008. The theme for this year was "SAVE OIL, SAVE GAS, SAVE OUR CHILDREN". The event at New Delhi was inaugurated by Shri Murli Deora, Hon'ble Minister of Petroleum & Natural Gas on 18th January, 2008. The function was also graced by Shri Dinsha Patel, Hon'ble Minister of State for Petroleum & Natural Gas, Secretary, Petroleum & Natural Gas and Additional Secretary, Petroleum & Natural Gas.

6.3 Education & Mass Awareness Campaign

Conservation of fossil fuel is not only vital because of its limited known resources in the world, but also because of its multiplying effect of reduction of Carbon Dioxide emission into the environment. The annual sale of petroleum products in our country put together stands at approx. Rs. 4,00,000 crore. Even in a very conservative manner, if we consider a scope of 2-2.5% savings, it is indeed phenomenal that our country has an assured scope of saving Rs. 8,000 – 10,000 crore every year on the amount of expenditure we spend on petroleum products. However, in order to accomplish such a saving, what we require is a strong motivation of each one of us end users of petroleum products. And that is where the role of Education Campaign comes into force.

6.3.1. Print Media Campaign

The campaign includes activities such as, Advertisement/Article/Editorial in Newspaper/ Magazine, Literatures/Leaflets/Posters/Stickers/Calendars etc. Newspaper advertisement was released in the leading newspapers throughout the country apart from PCRA articles in leading magazines. The advertisements were designed to attract the attention of the end users of petroleum products and motivate them to change their habits to fuel saving measures.

6.3.2 Printed Literature

The complete set of PCRA free literatures was revised for the first time during 2007-08 that has been consolidated into 6 booklets, 3 leaflets, 9 posters and 2 stickers covering the sectors of transport, industry, domestic and agriculture. Apart from the sectoral literatures, PCRA, during 2007-08, brought out two special booklets for children on the importance of fuel efficiency and petroleum conservation literatures. A total of 4.5 lacs copies of PCRA literature have been printed and distributed all throughout the country during the year.

6.3.3 Electronic Media Campaign

Radio advertisements on fuel efficiency were carried out on Radio Mirchi, Radio City and Red FM in 7 cities of the country. Tips on fuel efficiency on transport, industrial and domestic sectors were effectively put across to the listeners in the form of radio jingles to motivate them imbibe fuel saving habits in their day-to-day life.

6.3.4 Exhibition

Exhibiting its strategy, strength and achievement through panels, translides and displaying it during seminars and exhibitions throughout the country has-been an effective media of information dissemination for PCRA. During 2007-08, PCRA organized / conducted 34 nos. exhibitions in various parts of the country.

6.4 CLUSTER BASED RESEARCH & DEVELOPMENT APPROACH

Research & Development Department adopted "cluster approach" during the year 2007-08 to rapidly spread the message of the need and the benefits of energy conservation among the industrial clusters. The main focus was on the energy intensive Industrial Clusters e.f. Leather, Pulp & Paper, Textile, Cold Storage, Brassware, Marine and Refectory etc. PCRA's R&D Department could achieve in bringing the representatives from the industries operating inefficiently due to obsolete technology and lack of skilled manpower to a common platform along with the engineering institutes for identifying the felt need / designing of prototypes for energy efficient processes for the industries.

6.5 NEW INITIATIVES BY PCRA

A Conservation Technology Centre show casing the energy efficient technologies and products available in the Indian Market was established in PCRA, Sanrakshan Bhawan, 10, Bhikaji Cama Place, New Delhi. The center was inaugurated on 12.02.2008 by Additional Secretary, Ministry of Petroleum & Natural Gas / Vice Chairman, PCRA and provides a single window solution to industries aiming for Conservation of Energy.

- PCRA has signed a MoU with BEE in July 2007 for a period of one year. Under the MoU, PCRA in assocation with SIAM and its members will work to further improve efficiency in automotive manufacturing industry and fix the modalities of formalizing the Standards and labelling procedure for Indian automotive vehicles.

- For minimizing the loss of Hydrocarbon Fuel due to idling of vehicles at Traffic Signals, action is initiated for installation of Count Down Timer (CDT) and Variable Message Signboard (VMS) at 20 traffic intersection in Metro Cities.

- Action was initiated for the development of a scientific methodology based on statistical approach for the development of saving methodology to calculate saving arising out of PCRA's range of activities.

- PCRA organized two seminars in New Delhi and Chennai involving all stakeholders on issues
leading to the development of full efficiency standards and labelling for vehicles in India

- A Conservation Car Rally was organized in Mumbai in December 2007 to promote the concept of good driving habits, attracted extensive attention of the media.

WORK ALLOCATED TO MINISTRY OF PETROLEUM & NATURAL GAS

1. Exploration for, and exploitation of petroleum resources, including natural gas and Coal Bed Methane.
2. Production, supply, distribution, marketing and pricing of petroleum, including natural gas, Coal Bed Methane and petroleum products.
3. Oil refineries including Lube Plants.
4. Additives for petroleum and petroleum products.
5. Lube Blending and greases.
6. Planning, development and control, of and assistance to all industries dealt with by the Ministry.
7. All attached or subordinate offices or other organizations concerned with any of the subjects specified in the list.
8. Planning, development and regulation of oilfield services.
9. Public sector projects falling under the subject included in this list. Engineers India Limited and IBP Company, together with its subsidiaries, except such projects as are specifically allotted to any other Ministry/Department.
10. The Oil Fields (Regulation and Development) Act, 1948 (53 of 1948).
11. The Oil and Natural Gas Commission Act, 1959 (43 of 1959).
12. The Petroleum & Minerals Pipelines (Acquisition of right of User in Land) Act, 1962 (50 of 1962).
13. The Esso (Acquisition of Undertakings in India) Act, 1974 (4 of 1974).
14. The Oil Industry (Development) Act, 1974 (47 of 1974)
15. The Burmah-Shell (Acquisition of Undertakings in India) Act, 1976 (2 of 1976).
16. The Caltex (Acquisition of Shares of Caltex Oil Refining (India) Limited and of the Undertakings in India of Caltex (India) Limited Act, 1977.
17. Administration of the Petroleum Act, 1934 (30 of 1934) and the rules made thereunder.
18. Administration of Balmer Lawrie Investments Limited and Balmer Lawrie and Company Limited.
19. The Petroleum and Natural Gas Regulatory Board Act, 2006.

Appendix – II

LIST OF PUBLIC SECTOR UNDERTAKINGS AND OTHER ORGANISATIONS UNDER THE ADMINISTRATIVE CONTROL OF THE MINISTRY OF PETROLEUM & NATURAL GAS

I. Oil Companies in which Government of India has a shareholding (31.03.2008)

1. Oil & Natural Gas Corporation Limited 74.14%
2. Indian Oil Corporation Limited 82.03%
3. Hindustan Petroleum Corporation Limited 51.01%
4. Bharat Petroleum Corporation Limited 54.93%
5. GAIL (India) Limited 57.34%
6. Engineers India Limited 90.40%
7. Oil India Limited 98.13%
8. Biecco Lawrie & Co. Ltd. 57.37%
9. Balmer Lawrie & Co. Ltd. 61.80%

II. Subsidiaries and Other Companies.

1. ONGC Videsh Limited - wholly owned by ONGC
2. Mangalore Refinery & - subsidiary of ONGC Petrochemicals Limited
3. Bongaigaon Refinery & Petrochemicals Limited - subsidiary of IOC
4. Chennai Petroleum Corporation Limited - subsidiary of IOC
5. Numaligarh Refineries Limited - subsidiary of BPCL
6. Certification Engineers International Limited - wholly owned by EIL
7. EIL Asia Pacific Sdn BHD - wholly owned by EIL

III. Other Organisations

1. Oil Industry Development Board
2. Petroleum Conservation Research Association
3. Oil Industry Safety Directorate
4. Centre for High Technology
5. Petroleum India International
6. Directorate General of Hydrocarbons